BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 031033-EI

IN RE: TAMPA ELECTRIC COMPANY'S 2004-2008 WATERBORNE TRANSPORTATION CONTRACT WITH TECO TRANSPORT AND ASSOCIATED BENCHMARK

TESTIMONY AND EXHIBIT

OF

BRENT DIBNER

ON BEHALF OF

TAMPA ELECTRIC COMPANY

CONFIDENTIAL VERSION

NRL 11.26.05 (entire DN)

DECLASSIFIED

CONFIDENTIAL

employing proprietary models developed by DMA. The model assumes a daily barge hire rate of $50 including capital and fixed operating costs. Fuel costs are determined by the number of towboat days, towboat horsepower and the average percentage of capacity used by the towboat on each river segment.

In order to determine the activity times and allocated costs for each barge, it is necessary to understand the patterns of river movements. The key variables that affect these parameters are the number of barges moved by a towboat on each river segment; whether the barges will be part of a tow dedicated to a single movement, a tow dedicated to Tampa Electric coal from a number of docks, or a passing tow; and the frequency of tows available for a given barge. The analysis is made more complex by the fact that each barge is usually part of at least two tows because the towboats employed and number of barges per tow change from river to river.

To determine these inputs to the model, I used the bid solicitation, data published by the U.S. Army Corps of Engineers, barge line financial filings, information from interviews with river service providers and industry norms and rules of thumb. I evaluated how rates would

transportation needs. The variable component covers charges for all other costs, including fuel. The fuel costs are described and escalated separately. The fuel price assumption for the market rate I established is based on a price of **$0.70** per gallon for No. 2 fuel oil. The fuel component of the rate will vary as the index by which it is determined, the Platts Gulf Coast Waterborne No. 2 Oil - Low, varies.

To complete my market analysis, I examined and considered the costs of new equipment. I found that the current costs and risks associated with new equipment are prohibitively high and are significantly higher than they were a decade ago. This evaluation provided me with yet another way to attempt to determine appropriate market rates, with the resulting rate setting the boundary for the higher range of potential market rates.

In the end, my methodology established a single overall market rate for the ocean transportation segment, or an average rate that leaves the decision about the particular mix of vessels engaged in the trade to the provider.

I calculated a separate market rate for the movement of

the fact that the bidder is in Chapter 11 bankruptcy status, I recommended that Tampa Electric reject the inland river transportation bid and utilize the market rates established in DMA's inland river model.

For the marine terminal element, I utilized the rate structure of the bid as an appropriate market rate.

In assessing the ocean transportation market, I evaluated the core fleet that presently carries Tampa Electric's coal from the terminal and delivers it to the plant. I examined the costs per ton for the journey from Davant, Louisiana to Big Bend Station. I calculated a market rate, and then I evaluated that rate to assure that it provides the supplier with acceptable returns given the current market conditions and alternative hauls.

Overall, the combined market waterborne transportation rate as of January 1, 2004 is **$17.90** per ton. This is **$0.79** per ton less than the rates paid during the third quarter of 2003 under the existing contract. The individual segment market rates that I recommended are described below.

The average market rate for inland river transportation

is **$7.47** per ton. This average rate was calculated using the estimated rates of the river locations where Tampa Electric has contracted for delivery of its 2004 coal supply. The market rate for terminal services is **$2.45** per ton, which includes a **$0.20** fleeting charge. The market rate for ocean transportation of Tampa Electric's maximum annual requirements of 5.5 million tons is **$7.98** per ton. These rates total to the **$17.90** per ton market rate listed above.

I recommended that Tampa Electric present the market rates I established for each segment, as detailed in Document No. 1 of my exhibit, to TECO Transport for its decision to meet or beat the market price for services beginning January 1, 2004, as was required by the terms of the then existing contract. I recommended that if TECO Transport opted to provide service under the contractual "Right of First Refusal" clause, Tampa Electric should utilize the market rates I established to negotiate a contract with TECO Transport.

Q. Have you made any changes to your models or report since submitting your recommendations to Tampa Electric?

A. Yes, pages 9 and 68 of my report were revised to reflect

DOCKET NO. 031033-EI
FILED: JANUARY 5, 2004

EXHIBIT TO THE TESTIMONY OF

BRENT DIBNER

DOCUMENT NO. 1

ASSESSMENT OF MARKET TRANSPORTATION RATES AND COSTS FOR TAMPA ELECTRIC DOMESTIC MARINE COAL DELIVERY

Dibner Maritime Associates LLC

[redacted] of Market Transportation Rates and [redacted] mpa Electric Domestic Marine Coal Delivery

Final Report

[redacted]ntents

54

Dibner Maritime Associates LLC

[redacted]

I. Objectives

[redacted]ective

[redacted]elp Tampa Electric Company (TEC) evaluate rates for its marine coal supply [redacted]in.

- Tampa Electric's demand for up to 5.5 million short tons of marine delivered coal and pet coke during the 2004-2008 period will be the nation's largest coastal utility supply contract and the most complicated, involving multiple sources and three elements of logistics: inland river, transfer from river barge to coastal barge via ground storage in the Lower Mississippi; and transport more than 500 miles across the Gulf of Mexico
  - In addition, TEC will acquire pet coke at East Texas ports and deliver it to the Big Bend station
- Consequently, the trade is the largest component of the US domestic coastwise coal trade and tidewater terminal activity
- In August 2003, Tampa Electric contracted with Dibner Maritime Associates LLC (DMA) and asked it to evaluate the rates that would apply to the Tampa Electric coal movement, considering:
  - The results of TEC's solicitation of bids from the US transportation industry for specific volumes to begin in 2004, under bid WB-2004
  - DMA's assessment of the bidders respective marketplaces and rate structures for the three components of transportation
  - The options available to TEC to arrange the transportation using third party or TECO Transport equipment
  - Other factors that would bear upon the determination rates for the transportation segments

56

Dibner Maritime Associates LLC

[redacted]

II. Background

[redacted]

mpa Electric's Future Fuel Requirements

mpa Electric's coal supply will be driven by combined coal transportation and commodity
ts

- The total coal transportation costs will help dictate which coal mines will be best able to provide the required quality of coals at the lowest delivered cost
- At the present time, Tampa Electric has considerable latitude in choosing coal sources
- Consequently, the precise origins, the volumes that will be contracted for, and the minimum and maximum amounts cannot be firmly determined at this time
- The Tampa Electric coal transportation solicitation WB-2004 invited bids from inland, terminal, and ocean carriers to determine whether any qualified companies were interested in and capable of providing services in this three-segment chain
- The results of the solicitation, both through bids and decisions not to bid, provide important insights into carrier perceptions of rates, costs, and broader market conditions
  - The bid responses and non responses also provide insights into the general market conditions, capacity, and capabilities of the three supply chain segments
- Like many utilities, Tampa Electric's coal consumption in the 2004 to 2008 period will occur in a period of unprecedented uncertainty
  - TEC may deliver 2 million tons to Big Bend in 2008 – or it may be 5.5 million tons
  - This range of outcomes entails large uncertainties and higher costs than would be incurred if coal consumption ranges were narrow and as large as they were historically
  - Ultimately, if coal consumption is substantially reduced, a long term reduction in the transportation infrastructure can occur

[redacted]quired Coal Transportation Tonnage

Required Tonnages of Coal to be Moved Per Contract Year (000 short tons)

Without a Consent Decree Event

	Inland River			Terminal			Ocean	
	Minimum	Maximum		Minimum	Maximum		Minimum	Maximum
2004	3,250	5,000		3,250	5,000		4,000	5,500
2005	3,250	5,000		3,250	5,000		4,000	5,500
2006	3,250	5,000		3,250	5,000		4,000	5,500
2007	3,250	5,000		3,250	5,000		4,000	5,500
2008	3,250	5,000		3,250	5,000		4,000	5,500

With a Consent Decree Event

	Inland River			Terminal			Ocean	
	Minimum	Maximum		Minimum	Maximum		Minimum	Maximum
2004	3,250	5,000		3,250	5,000		4,000	5,500
2005	3,250	5,000		3,250	5,000		4,000	5,500
2006	3,250	5,000		3,250	5,000		4,000	5,500
2007	2,000	4,000		2,000	4,000		3,000	4,500
2008	1,000	3,000		1,000	3,000		2,000	3,500

Source: TECO Solicitation Bid WB-2004

[redacted]**ckground**

volumes and contract terms represent Tampa Electric's requirements for marine sport and logistics

- Inland river volume is 3.25 million tons per year with ability to carry up to 5 million tons per year
- Terminal for 3.25 million tons per year with volume to 5 million tons per year
- Ocean segment for 4 million tons per year with volume to 5.5 million tons per year
- Suitable cleaning and no foreign debris
- River demurrage after 3 free days loading and 3 free days discharging
- Ocean demurrage after 24 hours free load and 48 hours free discharge
- Transfer requires 1.4 million tons storage in 8 piles
- Big Bend to be maintained to maximum 34 foot draft
- Unloading inland barges at 3,000 ton per hour rate
- Ocean loading at 30,000 tons per 24 hour day, with loaders to load two grades simultaneously
- Offers must be reasonable and capable of being performed throughout the duration of the contract

60

[redacted]

ckground

npa Electric's contract structure with TECO Transport incorporates fixed, variable, and charges

- Fixed and variable rates for each origin point
- Two components of full rate structure
  - Fixed component provides a return on capital (for barges, towboats, ships, and tug boats)
  - The variable component covers all costs that are not related to capital recovery:
    - On-board operating costs (crew, stores & supplies, insurance, maintenance & repair)
    - General management expenses
    - Voyage expenses (e.g. shift boats, tugs, pilots, dockage, fleeting, wharfage)
    - Cargo expenses (hold cleaning, etc.)
    - Fuel cost separately adjusted for changes in fuel price
      - Keyed off of Platts Oilgram Gulf Coast Waterborne No. 2 Fuel Oil Price - Low
      - Permits more effective hedging against fuel price fluctuations
- Escalation of variable costs with the average of the Consumer Price Index (CPI) and Producer Price Index (PPI)

III. Approach

[redacted]**proach**

determine what constitute reasonable rates to service the Tampa Electric requirement

- DMA's assignment is to determine reasonable rates for the components and the combined movement of coal from the planned origins to Tampa Electric's Big Bend and Polk stations
- In doing so, several factors bear on the analysis, including:
  - The contract begins on January 1, 2004 and ends 5 years later on December 31, 2008
  - The posted price for diesel fuel ("Platts Oilgram Gulf Coast Waterborne No. 2 Fuel Oil Price - Low") has been arbitrarily set at $ 0.70 per gallon net of:
    - Inland fuel taxes and barge delivery costs to inland towboats and bunker barge delivery/pier delivery to ships and/or ocean tug barge units at locations to be selected
    - User taxes for inland waterways traffic
  - The loading points identified in the solicitation are a representative sample of locations in the general area that TECO expects will supply the majority of the coal it arranges to acquire
  - The pricing should take into account the volumes of the trade and the operational implications of the trade
  - In evaluating and developing the rates, allowance for non-ideal operating conditions (high water, low water, ice, weather, delays, etc.) should be made
  - Returns should reflect the returns on capital that are prevalent in the industry on an ongoing basis
    - As suggested by bids
    - As indicated by current and future market conditions of supply and demand

63

[redacted]**roach**

analysis recognizes the realities of costs and the marketplace

- While Tampa Electric received no bids that were fully responsive to its request, it did receive bids for the inland river and terminal portions and these are instructive as to the state of the market
  - One bid was received for inland transportation
  - One bid was received for terminaling from river and/or import ocean vessels-to-ocean vessel
- These bids were evaluated to determine their degree of competitiveness and the explicit and implicit issues that they raised through terms, conditions, and assumptions
- No bids were received for the cross-Gulf of Mexico leg
  - This is significant and reflective of the limited large-scale capacity available and the opportunities this equipment has in other more lucrative markets
- DMA's evaluation considered information from all meaningful directions including:
  - TEC and TECO Transport contract terms and definitions
  - The bids received by TEC in response to the invitation to bid
  - Available market indicators
  - Industry intelligence
  - Benchmarks of costs and rates in the broader marketplace
  - Independent models of activity and cost developed by DMA
  - Comparisons and reconciliations of all of the above

64

[redacted]**proach**

h segment of the supply chain was carefully evaluated considering options and ertainties

- **Inland**
  - Barge operating style - dedicated unit tows with standby boats versus flotilla tows
  - Depth of loading – barge design, terminal locations and river conditions
  - Size of tow - boat power and locking practices
  - Barge market conditions - earnings per day
  - Barge tow composition - box and rake hull configuration mix
  - Ability to scale up and down as coal volumes change within a year
  - Ability to scale up or down over the longer term
  - Ability to rely on third parties for towing and en route services (barge fleeting and shifting)

  Terminals
  - Market rates for bulk services
  - Scale and capacity of facilities
  - Services required by TEC
  - Ability to sustain volume and absorb fluctuations in throughput
  - Trends in the demand for bulk transfers of coal, coke, and other bulk commodities at major inland unload/ocean load facilities
  - Scaling ability within a year and over long term

- **Ocean**
  - Availability of bulk barge and ship capacity
  - Size and scale economies
  - Age and cost basis, including rebuilding
  - Collateral opportunities: Preference cargo offshore charters for tugs and barges
  - Replacement costs of tugs and barges
  - Ability to scale up or down as coal volumes change within a year
  - Ability to scale up or down over the longer term

[redacted]**proach**

arate from cost analysis, pricing must acknowledge marketplace dynamics

- Limited Lower Mississippi terminal and ocean marketplace
  - No ocean bids were received
  - Only one terminal bid
  - Only one river bid
- Size and distinctive nature of Tampa Electric's coal movement in the terminal and ocean elements in particular poses major challenges that TECO Transport has focused on meeting
  - Large terminal for barge-to-ocean vessel transshipping, storage, and blending
  - Fleet of large US-flag Jones Act ships and ocean barges capable of delivering the nation's largest ocean-going coal movement with the most cost effective equipment

99

CONFIDENTIAL

Dibner Maritime Associates LLC

River Transport Costs And Rates

[redacted]

nd River Transport Costs and Rates

solicitation requested rates for loadings on various rivers

LOADING DOCKS (and mile points)

- Green 11--GR11
- Patriot--GR32
- Sebree--GR43
- Pyramid--GR94
- Ken Mine--GR98
- Powhatan--OR111
- Transcontinental--OR406
- Jefferson River Port--OR618
- New Hope--OR734
- Owensboro--OR750
- Yankeetown--OR773
- Southern Indiana--OR794
- Mt. Vernon--OR828
- Overland--OR842
- Hamilton--OR852
- Shawneetown--OR858
- DeKoven--OR869
- Caseyville--OR872
- Rigsby & Barnard--OR881
- Empire--OR896
- Cook--OR948
- Mound City--OR976
- GRT--TR23
- Kentucky Lakes Dock--TR24
- Cora, IL--UM98

Key to Milepoints:

GR – Green River (a tributary of the Ohio River)
LM – Lower Mississippi River (sea to Ohio River)
OR – Ohio River
TR – Tennessee River (a tributary of the Ohio River)
UM – Upper Mississippi River (Ohio River to head or navigation)

[redacted]

nd River Transport Costs and Rates

potential for a range of between 1 million and 5 million tons of inland river traffic during contract period is accommodated by adjusting river towboat operations to meet reduced mes

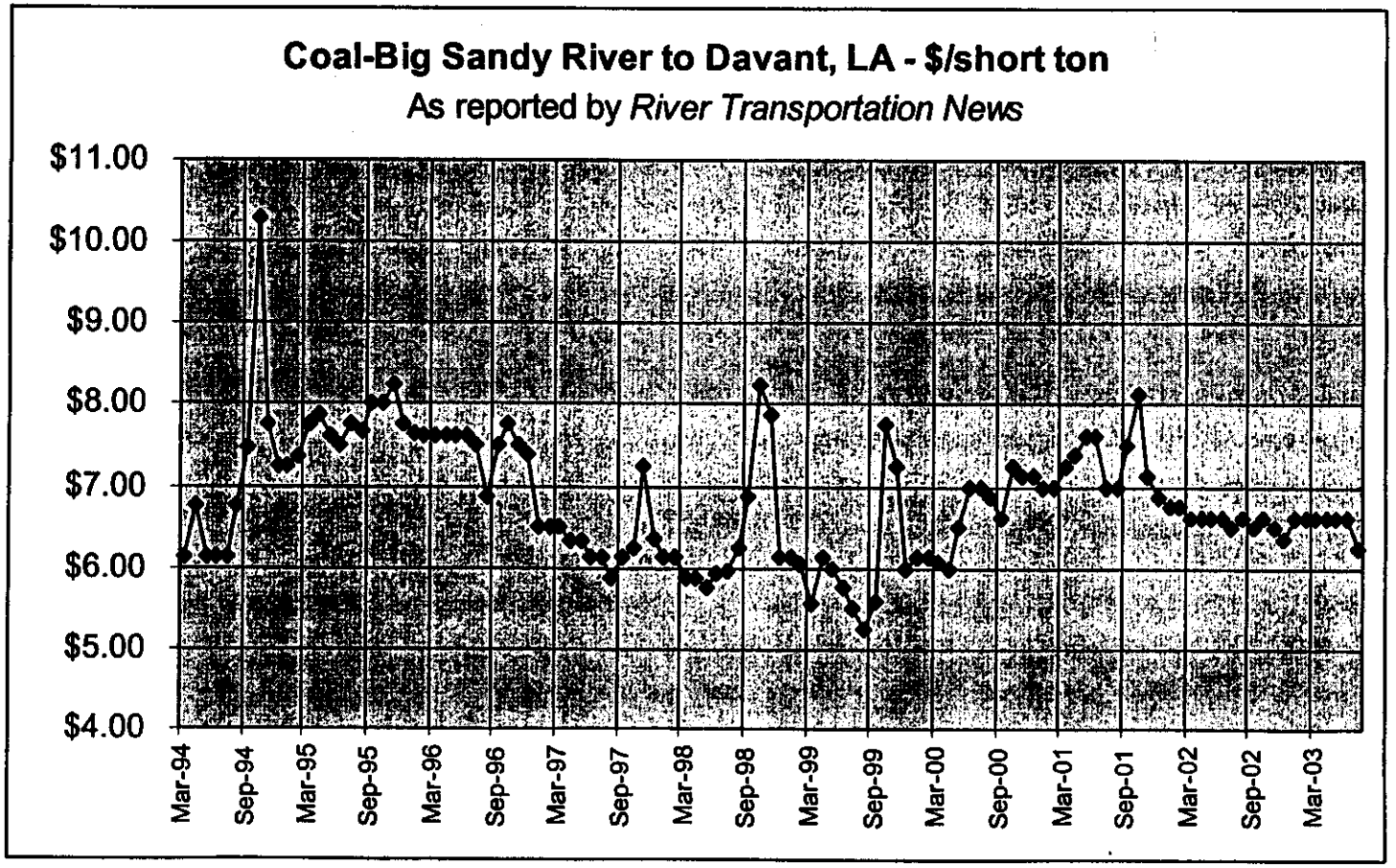
- TECO Transport has met Tampa Electric's needs by combining this volume with additional third party movements of a wide range of commodities
- If and as the volume of Tampa Electric coal declines from the potential contractual maximum of 5 million tons towards as little as 1 million tons, the density of barge activity along the system from the Ohio River valley to the Lower Mississippi will decline
  - It will become more likely that barges will be moved when ready on tows that will be passing loading points
- Because all jumbo open hoppers are virtually identical, Tampa Electric can count on the marketplace during its adjustments to higher or lower levels of demand
  - Some margin of reserve capacity might be contractually required for the carrier to meet TEC-specified fluctuations in activity, but the costs of this reserve capacity are not significant

69

[redacted]

ates - Ohio River/Davant

ast decade, coal rates from the Ohio River to Davant have not increased as a long term
idenced by reported spot rates from Big Sandy

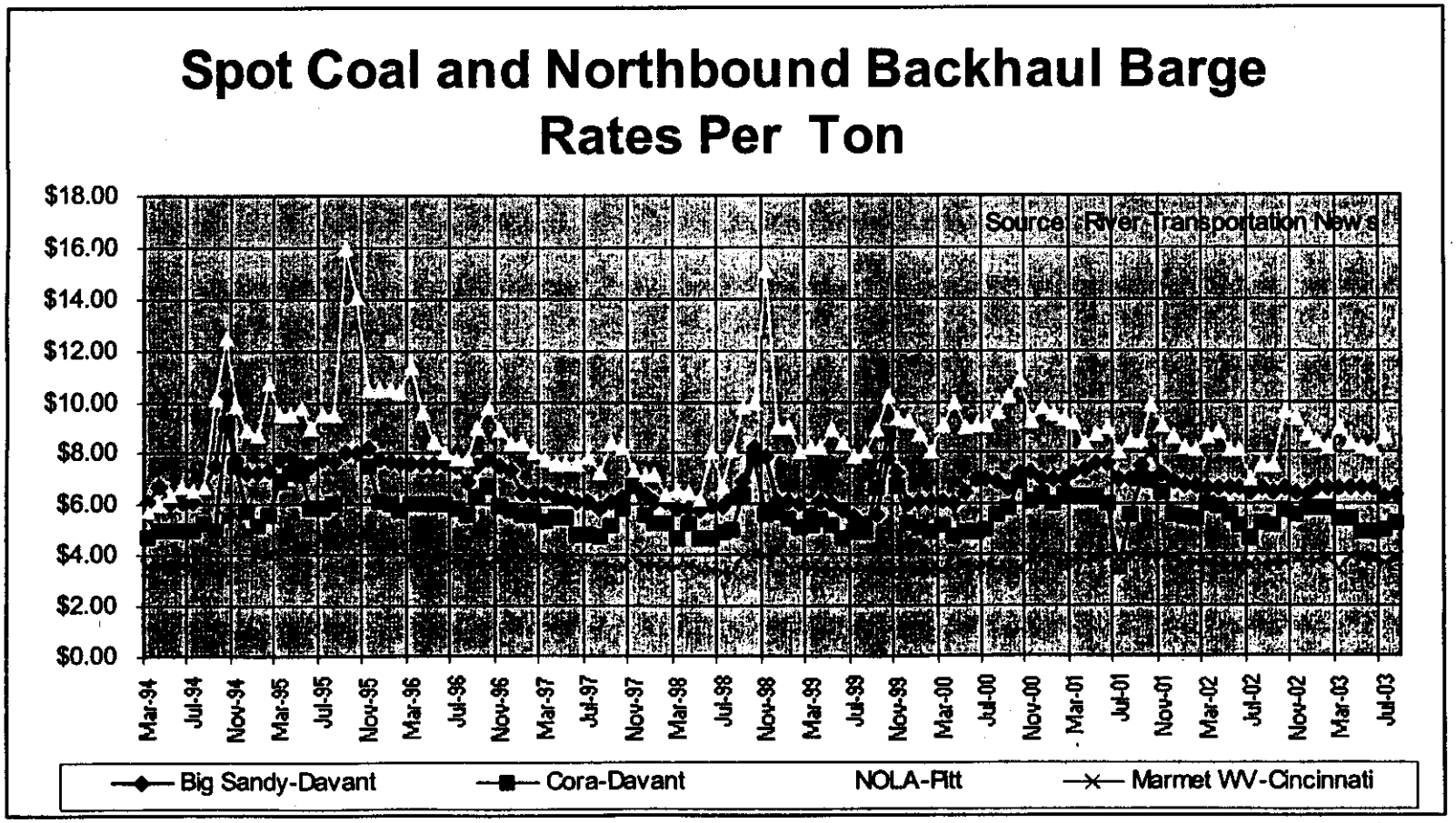


The Big Sandy River is a 7-mile long river at Ohio River MP 317

[redacted]al Market Rates - Inland Rivers

[redacted]s pattern is consistent for several southbound, intra-Ohio-River, and northbound [redacted]vements

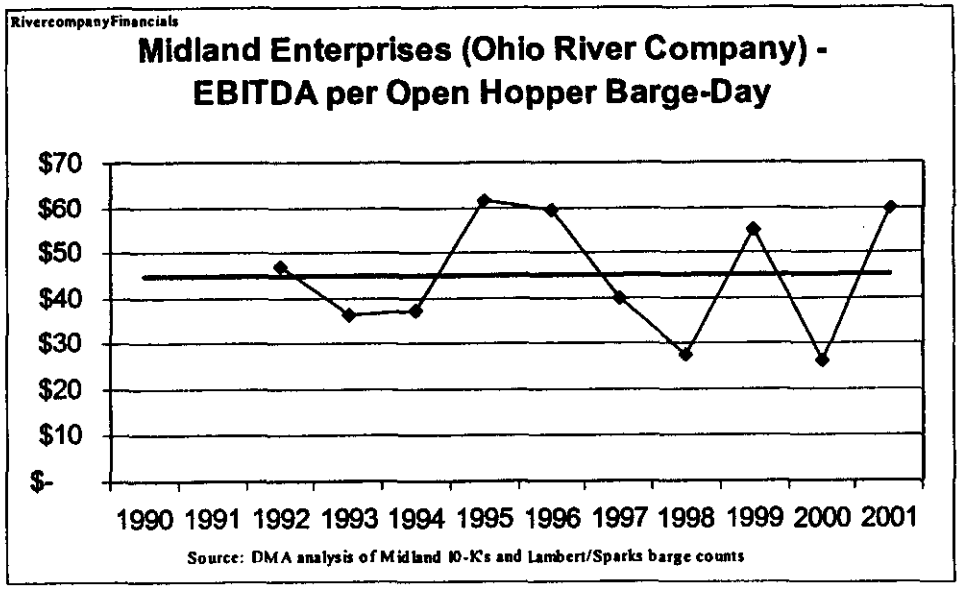
Inland Rivers - Coal Freight Rates
(1993 – 2003 Year-to-Date)



[redacted]pper barge earnings

[redacted]pper fleet EBITDA has fluctuated in recent years for the nation's largest open hopper [redacted]t carrier

- Midland was acquired by Ingram Barge Line in 2002
- Over the 1992-2001 period, the average EBITDA of Midland's relatively modern and predominantly open hopper fleet was about $ 44 per day
- EBITDA per barge-day fluctuated between $ 28 and $ 60 per day during this period
- While 2002 performance will not be reported, the overall barge market was very challenging and we suspect that earnings declined from the $ 60 point
- During this period, the average age of the Midland fleet was approximately 10 years
  - Older fleets would earn less due to maintenance and repair costs



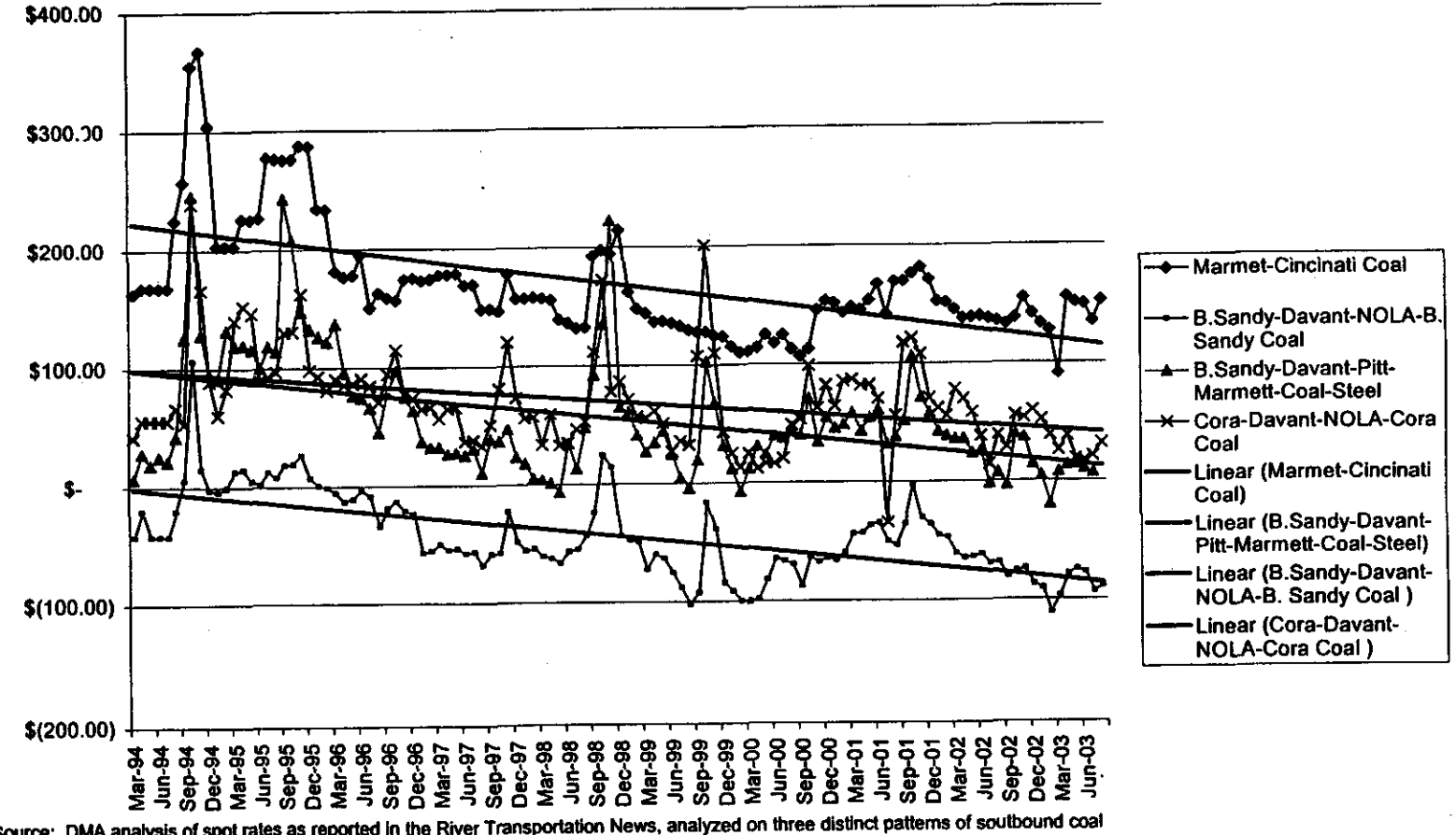
Note: EBITDA is earnings before interest, taxes, depreciation, and amortization and is a measure of operating income

[redacted]

pper Barge EBITDA on routes

ce 1994, the operating cash flow from **spot** hopper barge operations has been declining to weak conditions

EBITDA per Barge Day



Source: DMA analysis of spot rates as reported in the River Transportation News, analyzed on three distinct patterns of southbound coal trade to Davant with and without backhauls into the Ohio River Valley

[redacted]

Inland River Sector

nd coal market trends favor larger carriers with portfolios of contracts

- The inland river coal transportation sector has consolidated since 1998, primarily driven by the mergers of AEP and MEMCO in 2001, and Ingram and Midland/Ohio River Company in 2002
- Shorter term up river coal contracts have de-stabilized a once steady utility coal market due to the following:
  - Clean Air Act provisions have altered patterns towards high- and low-sulfur coals
  - Deregulation of utilities has altered generating patterns
  - Competition amongst utilities has intensified
  - Steel industry reformation (Electric Arc, imports of raw- and semi-finished steel, coking furnace closures, ore import patterns) has altered patterns of coking coal demand
  - Loss of substantial volumes of export coal from the Ohio River Valley
- Ohio River Valley utilities are buying larger amounts of transportation under more flexible terms
  - Larger coal carriers are better able to mobilize fleets of barges for new contracts
  - Shorter contracts are creating more frequent contract mobilization and de-mobilization costs that can be very challenging for smaller carriers with limited options and traffic patterns
  - Fewer, larger carriers are competing for business more selectively

[redacted]

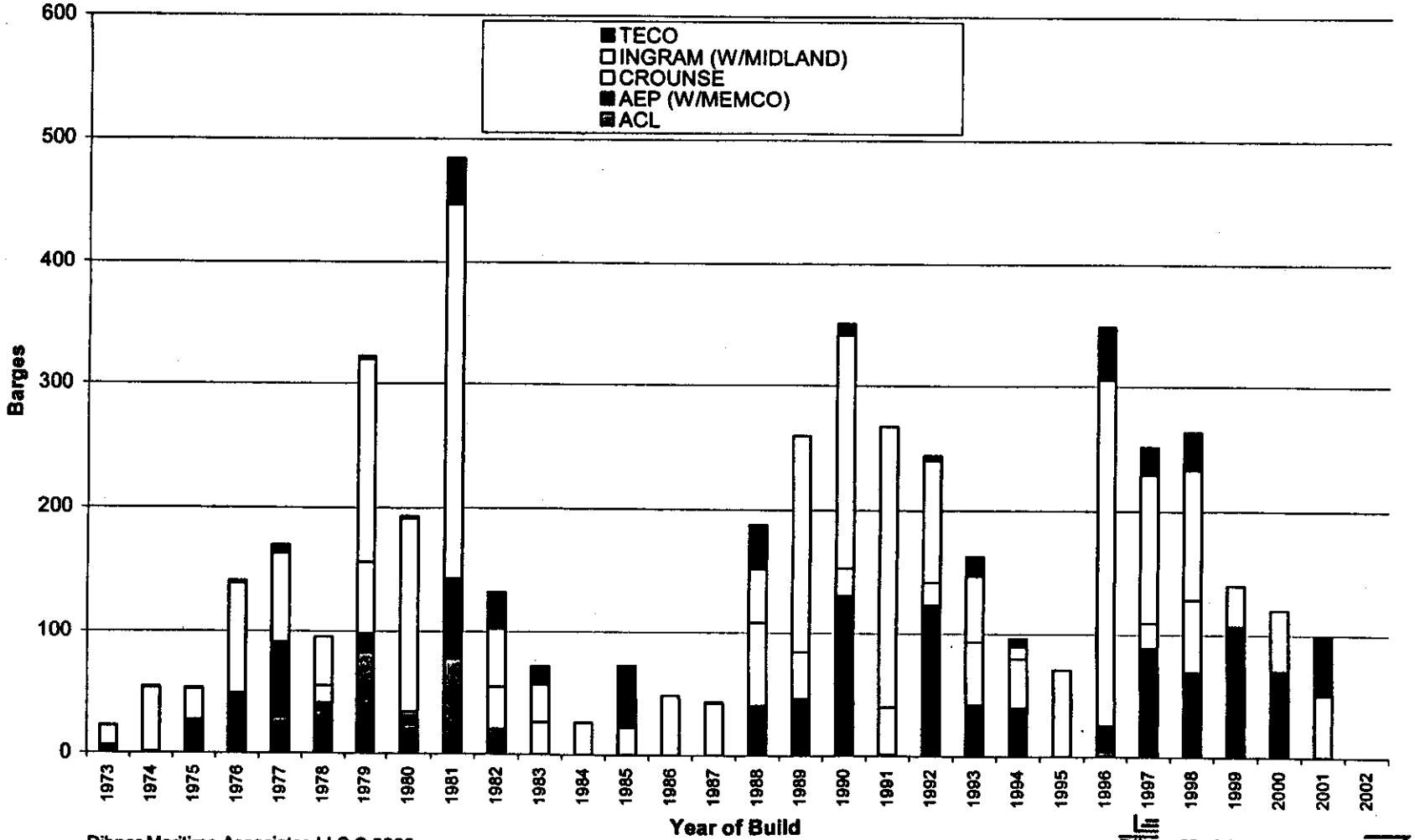
[redacted]l Barge Transport

[redacted]l transportation generally uses newer barges with lower acquisition costs

- In early 2003, the average age of the jumbo (195/200-foot by 35-foot) open fleet was 13.7 years, while the average age of the covered jumbo hopper fleet was 15.8 years
- Open hopper barges generally wear out faster than covered hopper barges because they are exposed to more frequent loadings and discharges, with greater use of mechanical equipment, and are exposed to the corrosive effects of sulfur and moisture at the bottoms of cargo piles
- Utility-owned AEP's fleet averages 8.9 years of age, while TECO's fleet averages 18 years, however:
  - TECO's barges are engaged in longer voyages with fewer loadings and unloadings each year
  - TECO's coal deliveries are unloaded by continuous bucket unloaders, reducing grab bucket damage to the barge bottom and sides
  - TECO's open hopper barges are not subjected to salt and other damaging northbound cargoes
- ACBL uses older barges in the coal trades (25.9 years in early 2003)
  - ACBL has reduced its hopper barge fleet during its Chapter 11 bankruptcy re-organization, taking the opportunity to shed some chartered covered barges that it considers to be high cost
  - ACBL's open fleet is limited in size and its position as an open hopper operator is not substantial.
- Other carriers have varying positions, some with a few contracts, others with only one or two major relationships

[redacted] Profile

Open Hopper Fleet--Major Carriers



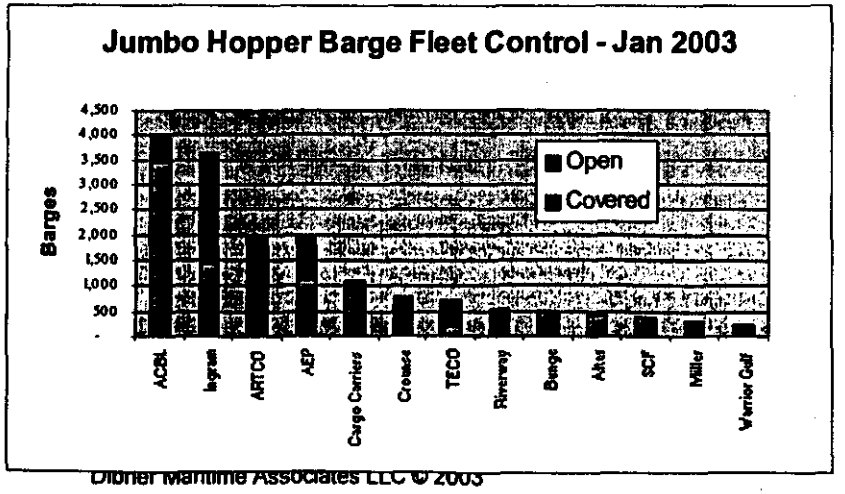
[redacted]

nd Fleet

y two carriers could reasonably have been expected to respond to Tampa Electric's citation – only one of which is solvent

- Ingram, the solvent carrier, did not bid
- ACBL (in Chapter 11 bankruptcy re-organization) bid, but
  - The size of ACBL's surviving barge fleet – including opens is uncertain at this time
  - No clear plan for re-organization is emerging
- AEP is occupied with its own intra-Ohio and Progress Energy Florida activity and would not likely bid as the key provider to another Florida utility
- Crounse is limited to Ohio River Valley movements by a towboat fleet of limited power that cannot operate on the Lower Mississippi with large tows
- Operators of covered barges would incur a $ 400 per barge penalty at IMT due to the problems of working around opened hatch covers that interfere with continuous bucket unloaders

77



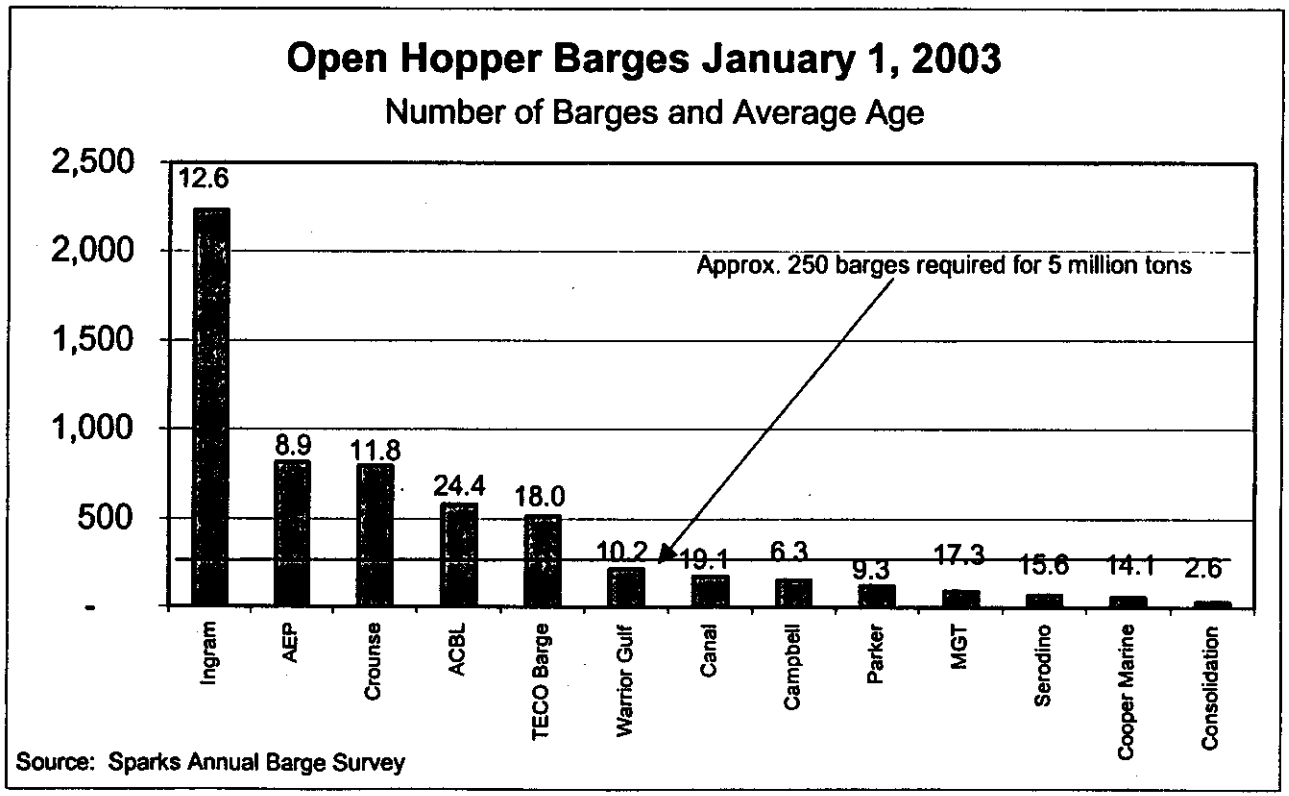
Jumbo Hopper Fleets - Over 200 Barges Total

	Covered	Open	Total	Comment
ACBL	3,449	580	4,029	Chapter 11
Ingram	1,416	2,229	3,645	
ARTCO	1,949		1,949	Grain trader
AEP	1,125	819	1,944	Utility-owned
Cargo Carriers	1,091	-	1,091	Grain trader
Crounse		799	799	Ohio coal focus
TECO	201	515	716	Utility-owned
Riverway	526		526	Grain focus
Bunge	469		469	Grain trader
Alter	404		404	Grain focus
SCF	378		378	Barge manager
Miller	285		285	Barge manager
Warrior Gulf		219	219	Alabama rivers

Source: Sparks barge survey 2003

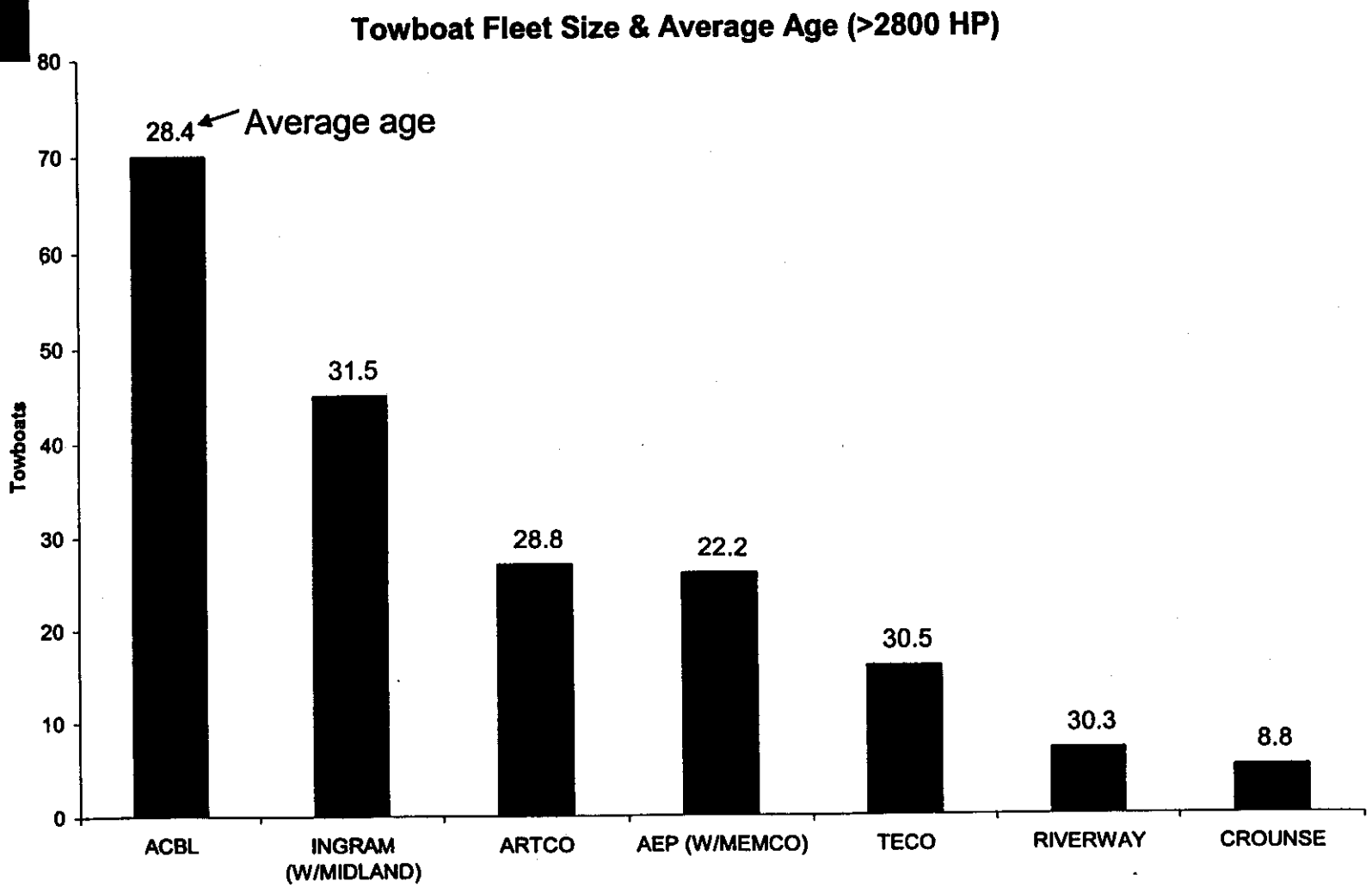
[redacted]n Hopper Age Profile

Open Hopper Jumbo Fleet Average Age – January 2003



78

[redacted]wboat Fleet Age Profile



Source: DMA analysis of U.S. Army Corps of Engineers, Waterborne Transportation Lines of the United States

[redacted]

luation of the ACBL Bid

ACBL bid must be qualified by the uncertainties created by its Chapter 11 bankruptcy
us

- ACBL is the largest inland river transportation company on the greater Mississippi System and has various affiliated companies
- Control of American Commercial Lines (ACL), ACBL's parent company, was acquired from Citicorp Ventures and CSX Corporation in May of 2002 by Danielson Holding Corporation of Chicago, a public company
- ACBL's parent ACL declared bankruptcy on January 30, 2003 seeking protection under Chapter 11
- High debt burdens, difficult river operating conditions, and weak barge rates were the primary causes cited by ACL for the bankruptcy
- By March 2003, ACL announced that it would seek to restructure and/or terminate several contracts including:
  - An Indiana and Kentucky Electric Coop coal transportation contract for 400,000 tons per year largely consisting of coal moving up the Ohio River from Cora, IL to Milepost 560 and expiring in 2008
  - A Chemical Lime Company contract for 400,000 tons of lime moving from Missouri to new Martinsville, WV at MP 129 that would expire in 2004
  - ACL had suggested earlier that these contracts were unattractive and had tried to subcontract them away
  - It is possible that the loss of export coal from the Ohio made these moves untenable as they had been priced as backhaul moves to position barges in this region
  - ACBL is also reported to be losing 1.4 million tons of coal and pet coke to AEP's MEMCO, related to the U.S. Steel Grainite City steel mill
    - This loss will further alter ACBL's patterns and role in the coal and coke trades

08

[redacted]luation of the ACBL bid – contd.

timing, outcome, and viability of ACL's re-emergence from bankruptcy remains very ear

- By May 2003, ACL sought permission from the bankruptcy court to terminate charters on more than 940 hopper barges and various towboats
  - This represented more than 25% of ACBL's inland hopper barge fleet and a larger proportion of that portion of the fleet less than 20 years old
  - ACL sought and received permission to shed some 425 barges acquired from ConAgra as part of its acquisition of the Peavey Barge line, while retaining the freight transportation contracts
- By August 2003, the departure of senior members of the ACL management team were announced and/or evident
  - Furthermore, a maritime investment banking firm was named to assist in potential re-financing or sale
  - Rumors of the possible re-emergence of the company intact, or break-up, or acquisition by managers, or acquisition by others emerged
- As of early September 2003, the future of ACL remains extremely unclear:
- Key concerns include whether a "new ACL" will be:
  - Financially viable and not subject to further bankruptcy re-organization or liquidation
  - Have an adequate fleet of towboats and open and covered hopper barges in good repair to meet customer needs in various markets
  - Maintain economies of scale to perform contracts profitably and reliably
  - Managed by a competent team
  - Capable of re-building its aged and owned fleet as required

[redacted]luation of the ACBL bid – contd.

- Danielson Holding Corporation's filing as Security and Exchange Commission Form 10-Q for the second quarter of 2003 revealed the following discussion of ACL's general prospects:

"The Chapter 11 process presents inherent material uncertainty; it is not possible to determine the additional amount of claims that may arise or ultimately be filed, or predict the length of time that the Debtors will continue to operate under the protection of Chapter 11, the outcome of the Chapter 11 proceedings in general, whether the Debtors will continue to operate in their present organizational structure, or the effects of the proceedings on the business of ACL, the other Debtors and its non-filing subsidiaries and affiliates, or on the interests of the various creditors and equity holder. The ultimate recovery, if any, by creditors and DHC will not be determined until confirmation of a plan or plans of reorganization. No assurance can be given as to what value will be ascribed in the bankruptcy proceedings to each of these constituencies. While it cannot presently be determined, DHC believes it will receive little or no value with respect to its equity interest in ACL. Accordingly, after recognizing its equity in ACL's net loss for the quarter ended March 28, 2003, DHC wrote off its remaining investment in ACL as an other than temporary asset impairment (see Note 3). "

[redacted]luation of the ACBL bid – contd.

- ACBL committed to provide information with respect to:
  - Insurance coverage
  - Five year financial history
- No information on these subjects was included in the package
- The bankruptcy was not addressed or acknowledged
- ACBL indicated that it operated more than 350 open hoppers, including approximately forty 245-foot "super" jumbo barges that are dedicated to the Cajun/Louisiana Generating LLC station on the Lower Mississippi River
  - This suggests that ACBL is operating about 310 open hoppers at present
  - It appears that the ACBL jumbo open hopper fleet has decreased substantially and rapidly because the Sparks *Barge Fleet Profile* of March 2003 indicated that the company had 582 jumbo open hoppers with an average age of 25.9 years
  - The condition, number, availability and commitment of ACBL to its open hopper fleet and business is unclear

[redacted]

luation of the ACBL bid – contd.

e ACBL bid response includes bids that are close to, but slightly below, rates that vide full and long term compensation

- Given ACBL's situation – both in terms of bankruptcy, re-organization, fleet re-sizing, and the potential sale of some or all of the company, the bid cannot be viewed without some concern for its long term viability
- Given the age of ACBL's surviving open jumbo hopper fleet, the opportunity cost for these super-annuated barges is very low, but not sustainable
- The age of the ACBL open jumbo fleet implies that even in the absence of all of the bankruptcy issues, problems in fleet performance are possible, with high barge rejection rates due to condition and water
- ACBL's demand that Tampa Electric transport not less than 1 million tons of coal provides steady guarantee throughout the five-year contract period, that is simpler and more efficient than meeting the full requirements for inland transportation, that could decline from as much as 5 million tons to as little as 1 million tons
  - As ACBL proposed, it has no re-marketing and re-deployment risk
  - Tampa Electric's range of demand imposes much more complex demands on the inland carrier
- Consequently, DMA concludes that while the ACBL rates are indicative of the low side of long-term rates –
  - TEC should not accept the proposal by any carrier to handle 1 million tons minimum
  - The ACBL bid provides too little basis to be awarded this contract given the tactical, operational, and strategic risks it faces

[redacted]nd River Transport Costs and Rates

- DMA's analysis considered a number of key factors in arriving at target freight rates
  - Location of terminals for which bids were solicited and TEC's current projected freight volumes from some of these
  - The effect of variations in total volume as defined by the solicitation
  - Implications of using dedicated and non-dedicated tows
- The analysis considered impacts and alternatives and strived to achieve a balance of costs and benefits reflective of the inland barge marketplace and constraints of the Tampa Electric coal requirement
- Historically, long and large dedicated tows were possible for a 7.5-8.5 million ton annual volume . However, DMA considered alternative towing arrangements that achieve efficiencies without fully dedicated tows because of the possibility of declining tonnage
  - All large barge lines operate mixed and dedicated tows enabling them to create full and efficient tows to the greatest extent possible
- The 'partially dedicated tow' methodology for the full volume (approx. 4 million tons) was ultimately selected after a rigorous assessment of the "fully dedicated tow" option
  - TEC's patterns of distance and volume drive costs until efficiency is substantially degraded
  - At the point at which efficiency is substantially degraded, it is assumed that TEC barges are placed on third party tows to achieve a portion of the efficiency created by the full volume of traffic and scale economies on the Ohio River

85

[redacted]nd River Transport Costs and Rates

Fully dedicated towboats would:

- Incur unreasonably high costs due to the infrequency of tows and the resulting longer barge waiting times at the Ohio/Mississippi interchange points
- Incur longer barge waiting time for tows at the loading and unloading dock
- Incur higher costs driven by the lack of density if and as TEC inland barge tonnage is reduced, such that only inclusion of TEC's loads on non-dedicated tows would be efficient

The partially dedicated tow methodology:

- Allocates costs to each coal-loading point origin assuming that a full tow can be made from that location the required number of times per year
  - The average tow size is equal to typical tow sizes achieved on each part of the river system
- Assigns barge and towboat waiting times based on the total passing towboat activity in each river region
  - Lower Ohio River
  - Middle Ohio River
  - Lower Mississippi River
  - Upper Mississippi River
- Imposes limitations on barge costs caused by waiting for passing towboats by assuming that in such cases, barges will be placed on non-dedicated tows
- Employs 30-barge tows from Cook to Davant on the Lower Mississippi River
- Allocates towing costs per ton using the weighted average of all barges in each tow

98

[redacted]and River Transport Costs and Rates

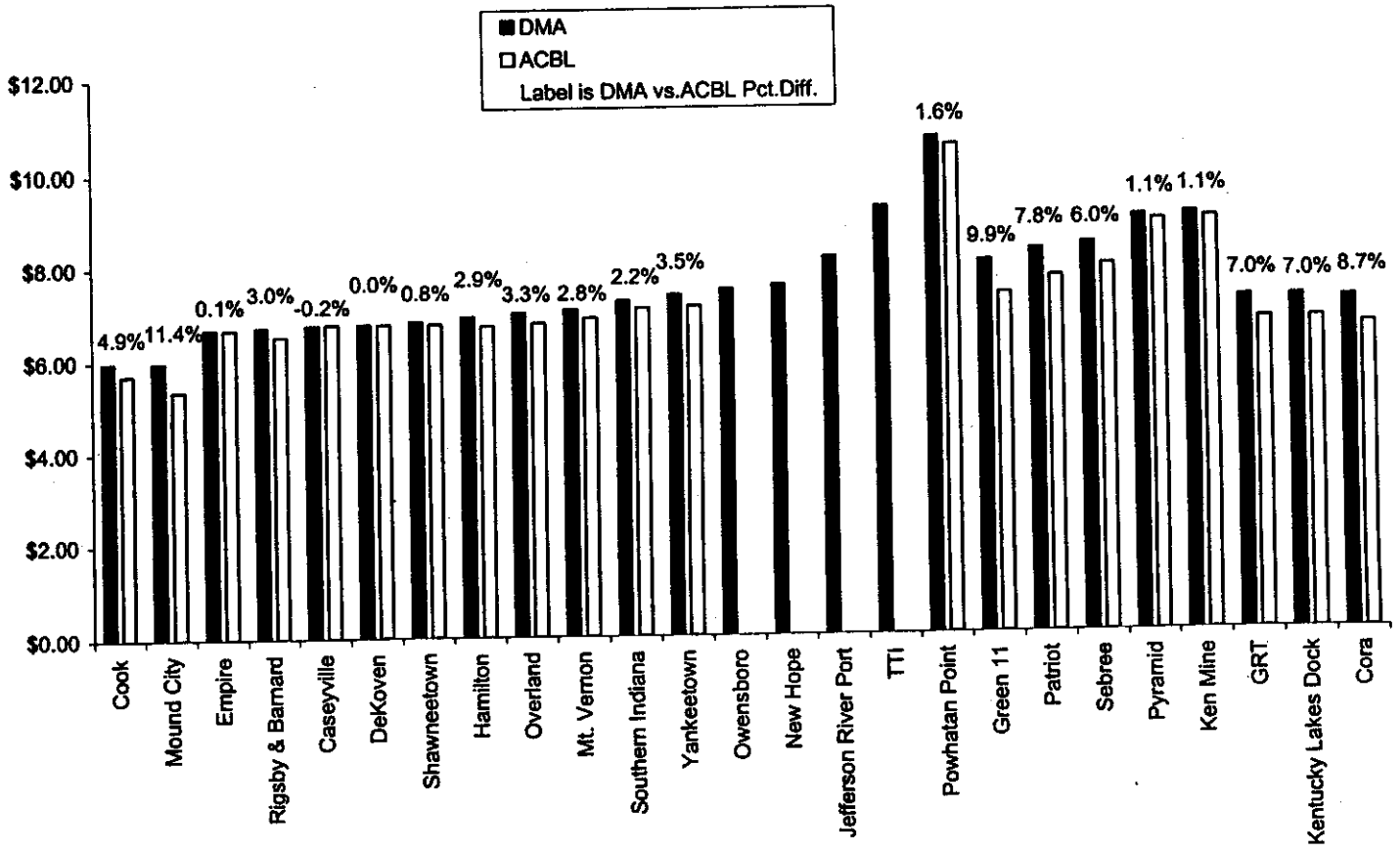
- The model determines target freight rates by building up costs for each barge during the length of a voyage
  - Capital costs—barge and towboat
  - Variable barge operating costs
  - Variable barge voyage costs incurred on each voyage
  - Variable towboat costs—operations and fuel
- Critical factors that affect the unit (per ton) cost of transportation are:
  - Tons loaded per barge
  - Size of the tow on each river and river segment
  - Barge time waiting for a tow
  - Barge handling time for loading, unloading, and at interchange points
  - Towboat speed and fuel consumption
  - Towboat waiting time for barges

[redacted]

nd River Transport Costs and Rates

results of this analysis are close to but consistently higher than ACBL's bid

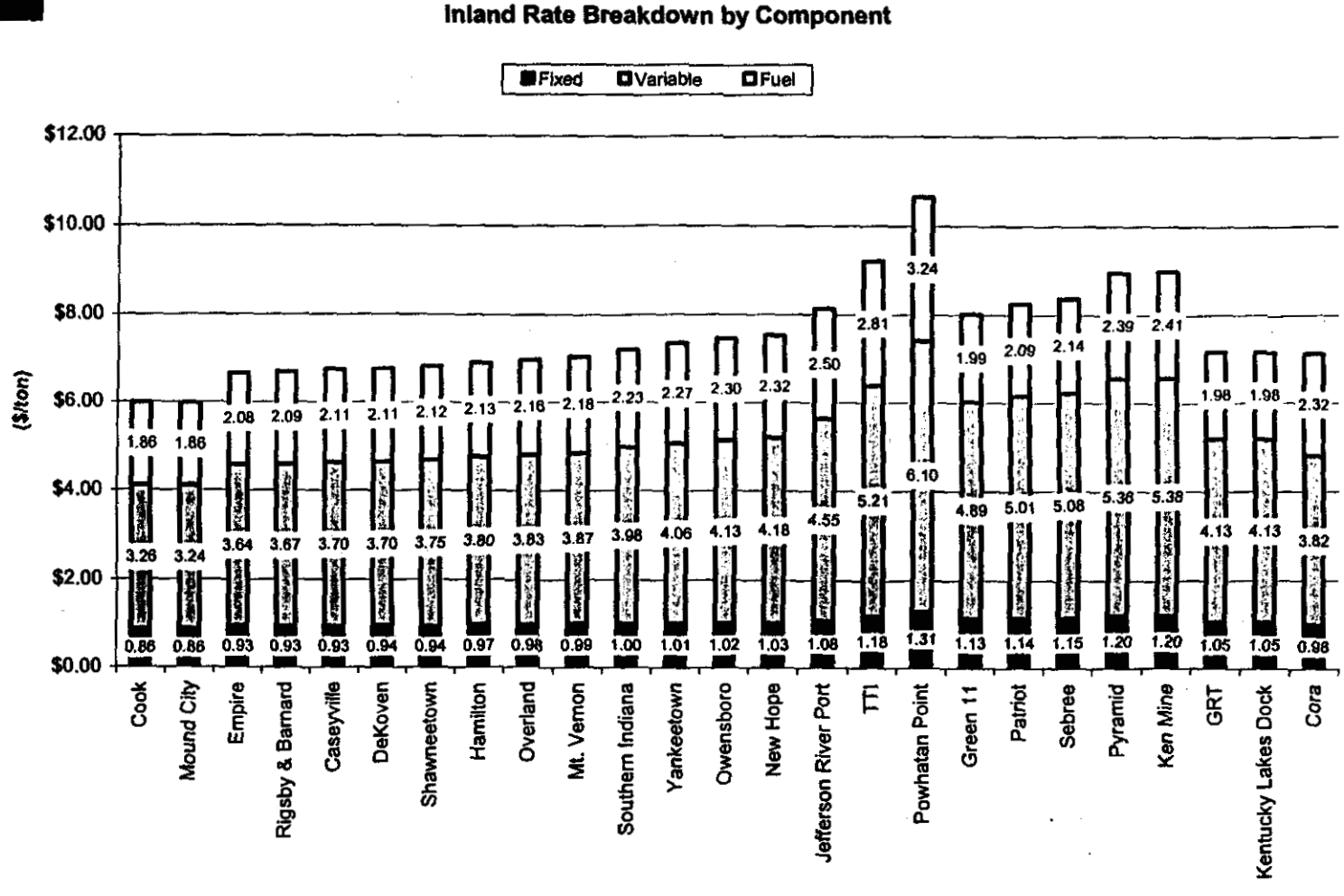
Inland Freight From Solicitation Docks at Nominal Volumes: DMA Model vs. ACBL Bid



88

[redacted]

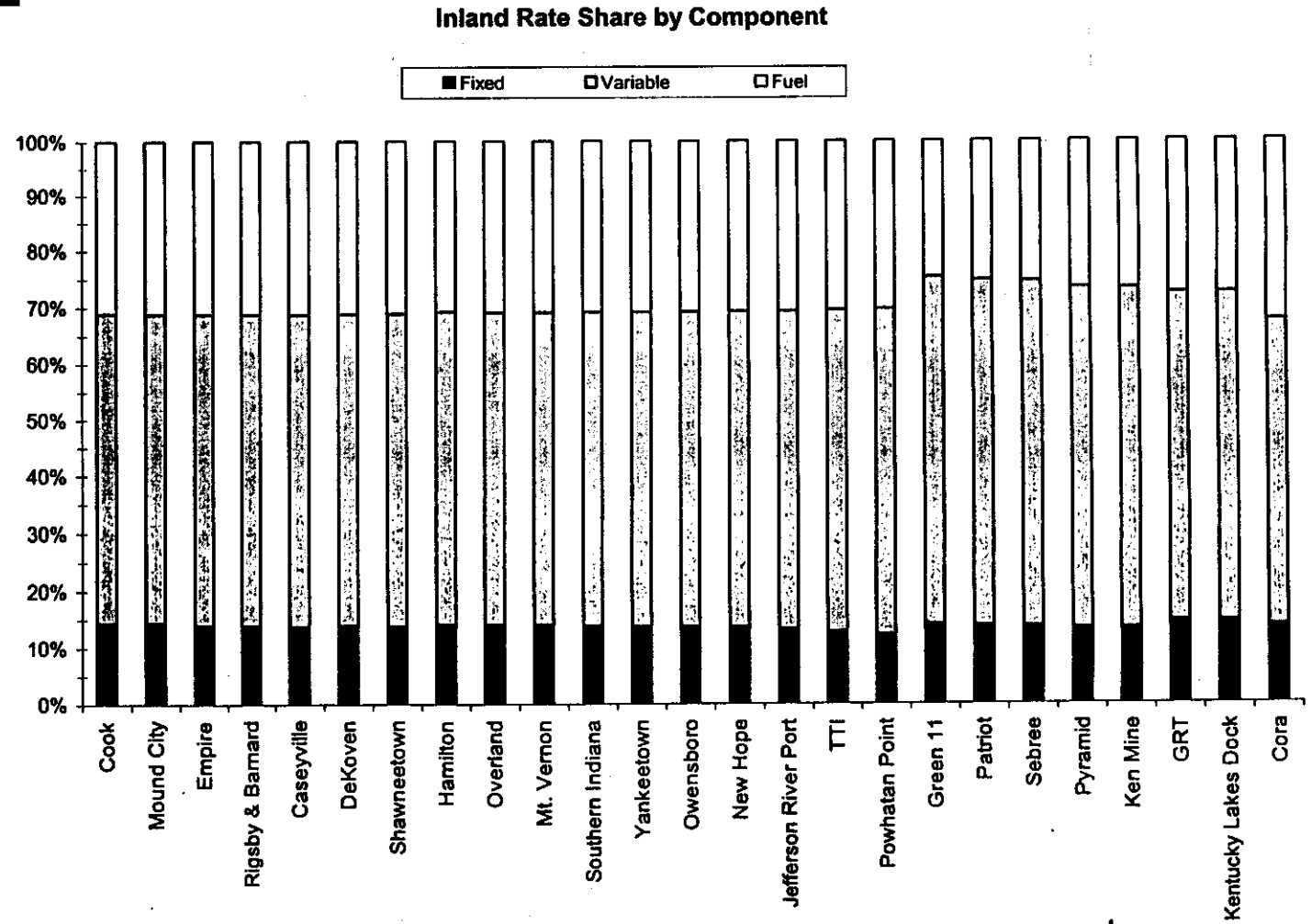
nd River Transport Costs and Rates
akdown by cost component



[redacted]

and River Transport Costs and Rates

re of rate by cost component

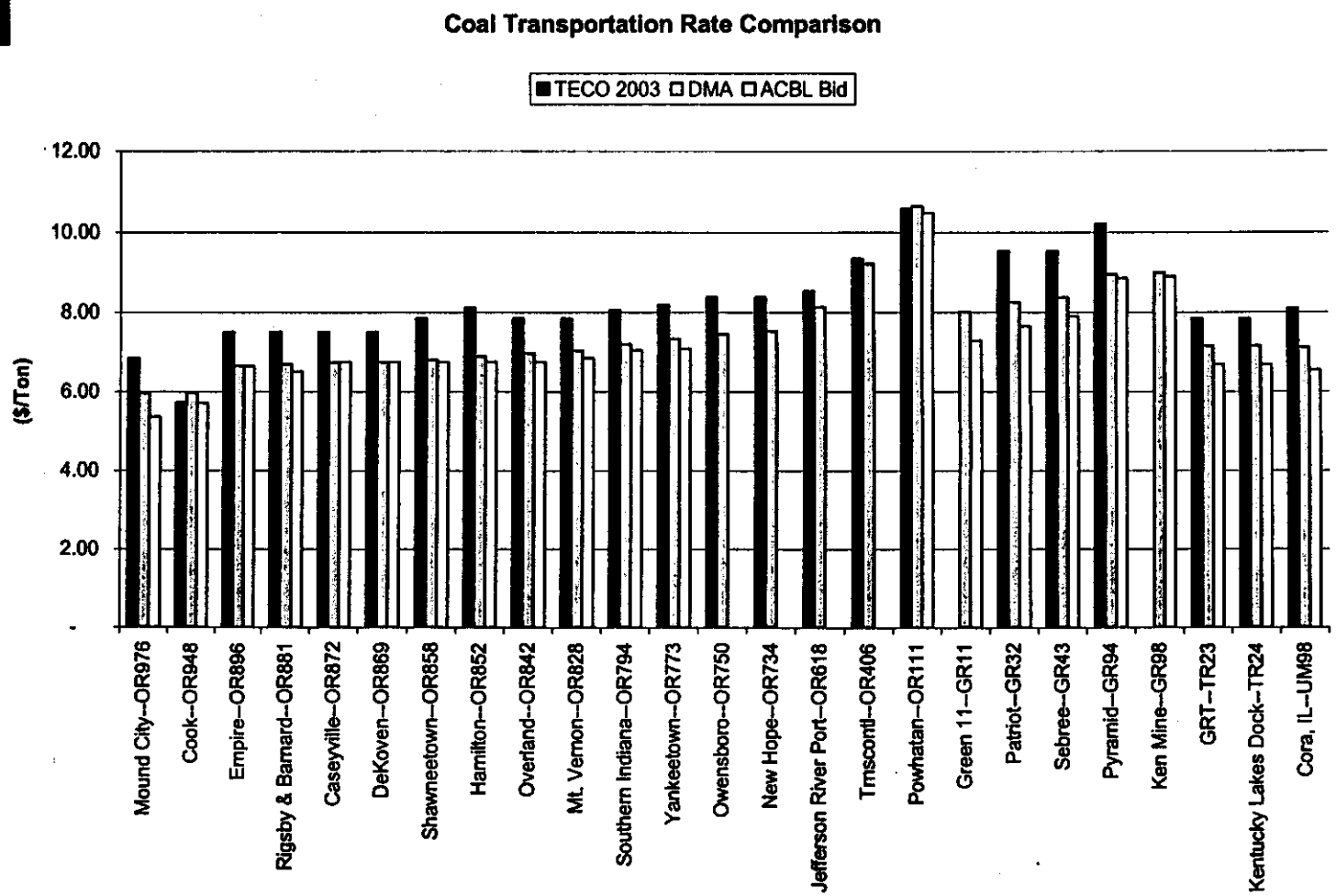


90

[redacted]

nd River Transport Costs and Rates

rates paid to TECO Transport in 2003 are slightly higher than the rates suggested by analysis



[redacted]

and River Transport Costs and Rates

ed on available Tampa Electric forecasts and the most practical operating profile, DMA
ommends the following market rates for each point of origin

Terminal	Mile Post	Current TECO	DMA Model	Change
Green 11	GR11		$8.01	
Patriot	GR32	$9.53	$8.24	($1.29)
Sebree	GR43	$9.53	$8.37	($1.17)
Pyramid	GR94	$10.21	$8.95	($1.26)
Ken Mine	GR98		$8.99	
Powhatan Point	OR111	$10.59	$10.65	$0.06
TTI	OR406	$9.34	$9.20	($0.14)
Jefferson River Port	OR618	$8.52	$8.13	($0.39)
New Hope	OR734	$8.38	$7.53	($0.85)
Owensboro	OR750	$8.38	$7.45	($0.93)
Yankeetown	OR773	$8.18	$7.34	($0.84)
Southern Indiana	OR794	$8.06	$7.21	($0.85)
Mt. Vernon	OR828	$7.85	$7.04	($0.81)
Overland/Camp Dock	OR842	$7.85	$6.97	($0.88)
Hamilton	OR852	$8.12	$6.90	($1.22)
Shawneetown	OR858	$7.85	$6.81	($1.04)
DeKoven	OR869	$7.51	$6.75	($0.76)
Caseyville	OR872	$7.51	$6.74	($0.77)
Rigsby & Barnard	OR881	$7.51	$6.69	($0.82)
Empire	OR896	$7.51	$6.65	($0.86)
Cook	OR948	$5.72	$5.98	$0.26
Mound City	OR976	$6.84	$5.96	($0.88)
GRT	TR23	$7.85	$7.16	($0.69)
Kentucky Lakes Dock	TR24	$7.85	$7.16	($0.69)
Cora	UM98	$8.10	$7.12	($0.98)

92

[redacted]and River Transport Costs and Rates

[redacted]le the precise sources of coal will be determined through Tampa Electric's purchasing [redacted]gram, the average inland river cost may be on the order of $ 7.47, based on the average [redacted]l regions of interest to Tampa Electric

- Tampa Electric would buy coal from point further away from Davant because it can achieve overall reductions in costs per btu
- By having the flexibility to buy in several regions, Tampa Electric gains purchasing power

Terminal	Recommended	Current	River	Milepost
Patriot	$8.24	$9.53	Green	32
Powhatan Point	$10.65	$10.59	Ohio	111
Southern Indiana	$7.21	$8.06	Ohio	794
Overland/Camp Dock	$6.97	$7.85	Ohio	842
Shawneetown	$6.81	$7.85	Ohio	858
DeKoven	$6.75	$7.51	Ohio	869
Cook	$5.98	$5.72	Ohio	948
Cora	$7.12	$8.10	Upper Miss.	98

Average	$7.47	$8.15	per short ton

93

[redacted]

nd River Transport Costs and Rates

components of the total rates form the basis for quarterly adjustments

Components of Recommended Rates ($/Ton)

	MP	DMA Recommendation	Fixed	Variable	Fuel
Green 11	GR 11	$8.01	$1.13	$4.89	$1.99
Patriot	GR32	$8.24	$1.14	$5.01	$2.09
Sebree	GR43	$8.37	$1.15	$5.08	$2.14
Pyramid	GR94	$8.95	$1.20	$5.36	$2.39
Ken Mine	GR98	$8.99	$1.20	$5.38	$2.41
Powhatan Point	OR110.8	$10.65	$1.31	$6.10	$3.24
TTI	OR406	$9.20	$1.18	$5.21	$2.81
Jefferson River Port	OR618	$8.13	$1.08	$4.55	$2.50
New Hope	OR734	$7.53	$1.03	$4.18	$2.32
Owensboro	OR750	$7.45	$1.02	$4.13	$2.30
Yankeetown	OR773	$7.34	$1.01	$4.06	$2.27
Southern Indiana	OR794	$7.21	$1.00	$3.98	$2.23
Mt. Vernon	OR828	$7.04	$0.99	$3.87	$2.18
Overland	OR842	$6.97	$0.98	$3.83	$2.16
Hamilton	OR852	$6.90	$0.97	$3.80	$2.13
Shawneetown	OR858	$6.81	$0.94	$3.75	$2.12
DeKoven	OR869	$6.75	$0.94	$3.70	$2.11
Caseyville	OR872	$6.74	$0.93	$3.70	$2.11
Rigsby & Barnard	OR881	$6.69	$0.93	$3.67	$2.09
Empire	OR896	$6.65	$0.93	$3.64	$2.08
Cook	OR948	$5.98	$0.86	$3.26	$1.86
Mound City	OR976	$5.96	$0.86	$3.24	$1.86
GRT	TR23	$7.16	$1.05	$4.13	$1.98
Kentucky Lakes Dock	TR24	$7.16	$1.05	$4.13	$1.98
Cora	UM98	$7.12	$0.98	$3.82	$2.32

Dibner Maritime Associates LLC

[redacted] Coastal Terminal Service Rates

[redacted]

ewater Terminal Rates

r services are limited to two major players

- TECO Terminals (Davant) and IMT are the two existing terminals:
  - Large scale facilities
  - Aged asset bases
  - High base volumes
  - Limited interferences for additional coal traffic
  - Down river locations for large ships
- There are no other terminals on the Lower Mississippi River that have the facilities and space to unload coal barges and Panamax ships at high sustained rates, to store large volumes of coal in multiple piles, and to load ocean-going ships and barges with coal at high rates

96

[redacted]minal Bid

International Marine Terminals - Terminal Bid

Commodity/Terms	Transfer Operation	Bid Rate - $/ton
Coal/Pet Coke	Barge to Vessel	$ 2.00 ($1.75 in 1998)
Coal/Pet Coke	Barge to Ground to Vessel	$2.50 ($ 2.50 in 1998)
Import Coal	Vessel to Storage to Vessel	$ 4.00 ($ 4.25 in 1998)
Transfer Rate	Barges emptied to "blade clean" standard	Fixed - 5 Years
Fuel/Labor Escalation		None
Sampling Fee		$ .11/ton (free in 1998)
Barge Fleeting/Handling Fee		$ .20/ton (None in 1998)
Storage Charge (If met min. annual volume)		None
Vessel Load/Discharge Terms		
Loading Rate	30,000 MT WWD SHINC	12 Hrs. WWD SHINC
Discharge Rate	15,000 MT WWD SHINC	12 Hrs. WWD SHINC
Plaquemines Port Tax	Included	$ 400 per barge charge to unload covered hopper barges (approx. $ .25 per ton)
Barge Discharge Terms	3 days guaranteed after first 0700 hrs	
Discharge Open Hopper to Ground	5 days	
Storage	1.4 million tons, 8 piles, fee after March 1, 2009	

97

[redacted]

ewater Terminal Rates

l Exports from the Lower Mississippi have languished

- Coal export levels have been restrained by many factors including
  - Weak European demand for steam and met coal
  - A strong dollar that has restrained exports
  - Aggressive sales of Colombian coal into US coastal utilities has restrained demand
  - The Far East is increasing use of Australian, Far Eastern, and western US coal
  - Panama Canal limits size of ships to 55,000 tons of cargo
  - US ports have only gradually increased to the "Baby Cape" size of 100-125,000 dwt, limiting US competitiveness to the Far East

98

[redacted]ewater Terminal Facilities

TECO Terminal and IMT facilities are generally similar in overall capability

TECO Terminal

- Two berths with three positions capable of handling ships:
  - Berth No. 1 with 1,851 linear feet of berthing space and 50-70 feet of water, one fixed and one travelling loader
  - Berth No. 2 with 1,164 linear feet of berth space and 50 feet of water, for unloading ships and for direct vessel-to-barge and barge-to-vessel transfers
- Two Barge unloading stations with continuous bucket unloaders:
  - No. 1 with 1,200 linear feet of mooring space
  - No. 2 with 1,250 linear feet of mooring space
- Ground storage in two locations for more than 4.4 million short tons of material
  - Each equipped with stacker and reclaimer
  - 9,700 tons/hour rated combined stacking
  - 9,000 tons/hour rated combined reclaiming
- Two riverside barge fleeting (tie-up) locations
  - Shore moorings for 242 loaded barges
  - Mooring dolphins (piles) for 160 empty barges
- One mid-stream ship mooring location for an ocean vessel

IMT Terminal

- Three berths with three positions capable of handling ships:
  - Shiploader Wharf with 1,044 linear feet of berthing space and 46 feet of water – traveling loader
  - Bulk Commodity Wharf with 1,271 linear feet of berthing space and 40 feet of water for cargo transfers of bulk cargoes – stationary loader
  - Crane Wharf for direct (barge-to-ship or ship-to-barge) transfer with 1,271 linear feet of berthing space and 46 feet of water – 2 cranes (one direct, one to storage) – level luffing crane
- One barge unloading station with continuous bucket unloader
  - Rated at 5,000 tons per hour
- Ground Storage in one location for 1.3 million tons on 50 acres with 107 additional acres available for expansion
  - Two combination stacker/reclaimers
  - 12,000 tons/hour rated combined stacking
  - 10,600 tons/hour rated combined reclaiming
- One riverside barge fleeting location
  - Mooring dolphins for 104 barges
  - 2 buoys to moor barges

99

[redacted]ewater Terminal Rates

[redacted]resent the tidewater market is very weak due to low export coal levels

- 2002 coal exports from the Mississippi River were 0.7 million tons, down from 5 million tons in 1998 , and 40% less than 2001
  - The reduced volumes of traffic are increasing the fixed costs per ton handled, even though weak demand would argue for lower rates
- These figures compare with the IMT quotation of $ 2.00 per ton for direct barge-to-ship transfer and $2.50 for barge-to-ground-to-ship transfer
  - The flexibility and service requirements of TEC are significant and this might justify pricing above the nominal ship unloading marketplace
- Dockage, mooring line-handling for ships, tugboat service to dock and undock ships and ocean barges, and inland river barge shifting and fleeting costs are excluded from the basic terminal rate because they are considered part of the coastal or inland barge transport segments`

[redacted]quired Terminal Activity

- Up to 1,000,000 tons of imported coal to be handled from Panamax sized vessels at tons per hour
  - Unloaded on Lower Mississippi River
  - Transferred directly to ocean vessels or stored on ground
  - Blended to TEC specifications
  - Loaded on ocean vessels after storage
- Balance of coal will be delivered by inland barge to the facility

101

[redacted]e Recommendation

- The IMT rates may be considered a legitimate indication of the current market and TECO Transport should be offered the opportunity to meet or beat this pricing
- The terminal rate charged for each month should be established at the rates shown below, based upon the tonnage shipped coastwise, and reflecting the time that coastal vessels are at the terminal and available for direct barge-to-coastal vessel transfer
- Rates on any import cargo should be at the proposed IMT tariff
- *This rate is to be fixed for the duration of the contract*

Tons Shipped Per Year	Tons Shipped Per Month	Coastal Loads Per Year	Cstl Loading - Hours Per Year	Coastal Loading - Pct of Year	Calculated Rate Per Ton
5,500,000	458,333	220	4,400	50.2%	$ 2.25
5,000,000	416,667	200	4,000	45.7%	2.27
4,500,000	375,000	180	3,600	41.1%	2.29
4,000,000	333,333	160	3,200	36.5%	2.32
3,500,000	291,667	140	2,800	32.0%	2.34
3,000,000	250,000	120	2,400	27.4%	2.36
2,500,000	208,333	100	2,000	22.8%	2.39
2,000,000	166,667	80	1,600	18.3%	2.41
1,500,000	125,000	60	1,200	13.7%	2.43
1,000,000	83,333	40	800	9.1%	2.45

Coastal Loading Rate		30,000	tons per day
Average Coastal Load	25,000	tons	
Direct Barge-to-Coastal Vessel		$	2.00 per ton
Via Ground to Coastal Vessel (from storage)		$	2.50 per ton
Barge Fleeting/Handling Fee*		$	0.20 per ton
Total Rate at Maximum Tonnage			**$2.45**

*Added to the appropriate loading charge

102

CONFIDENTIAL

Dibner Maritime Associates LLC

[redacted]stal Transport Rates and Costs

[redacted]

npa Electric Ocean Coal Transportation

npa Electric's ocean movements are performed by ocean vessels because Tampa is accessible by the sea

- Transportation of coal from Davant to Tampa Electric's Tampa Bay power plants cannot be performed by inland barges
- The Gulf Intracoastal waterway extends eastward from New Orleans Harbor via the highly congested Inner Harbor Lock only as far east as St. Marks, FL, 426 miles east of New Orleans
  - Access to Tampa from this point requires an ocean passage of more than 240 nautical miles
  - Inland hopper barges are not designed, sized, or certified for such movements
    - Hopper barges are not designed to be towed at sea and cannot be pushed in waves
  - Even if inland hopper barges were to be used at sea, the risks of sinking would be very high
  - Delays at the Inner Harbor Lock add substantial delays and costs to any tow transiting the lock
  - The total transit by the coastline – supposing it were possible – would be some 666 nautical miles, compared to some 456 by sea
- The economics of eastward towing on the Gulf Intracoastal Waterway is also very poor
  - Tows are limited in size to not more than four hopper barges - 6,000 tons
  - Costs per ton mile increase as tow size is reduced
- In recent years, eastbound coal movements from the Mississippi River to utility plants east of New Orleans have virtually ceased

104

[redacted]

mpa Electric Ocean Coal Transportation

- *Progress Energy Florida established a marine delivery system that is similar to Tampa Electric's but limited in scale and draft*
  - Deliveries to the Crystal River for Florida Power are performed by 462-foot ocean-going tugs and barges with drafts of less than 20 feet with capacities of approximately 18,000 short tons, pushed and towed by tugboats with about 4,500 hp at speeds of 6-7 knots
  - By comparison, Tampa Electric is able to deliver coal at drafts up to 34 feet (to Big Bend) in cargo lots of up to 39,000 short tons, by ships and by ocean-going tugboats with up to 7,000 hp at speeds up to 10-12 knots

105

[redacted]**mpa Electric is paying freight rates that are below alternative rail rates**
other US-flag capacity exists to meet a third of Tampa Electric's projected requirements
he 2004-2008 period

- TECO Transport has invested in the nation's largest fleet of dry bulk ships and ocean-going barges, with sizes and economies that are not replicated by any other operator
  - These benefits are extended to TEC ratepayers through the historical rate structure
  - These benefits are extended to TEC ratepayers through the future rate structure
- New tug-barge units cannot provide transportation in a declining and uncertain market for less than $ **10.50** per ton
- The marginal supply of barges in the 15,000 short ton capacity class would incur fully utilized costs of more than **$ 9.09** per ton if trading on the TECO Davant-to-Big Bend route with sufficient reserve capacity to meet a 37.5% range from minimum to maximum tonnage
  - This rate represents a marginal cost to support a TECO contract at the threshold at which several barges exist
  - Many of these barges are actively engaged in other activity
- TECO Transport meets Tampa Electric's needs for up to 5.5 million tons of coal transportation within the context of an 18 million coastal US-flag dry bulk marketplace and an additional 2-4 million tons per year of government-impelled export grain

106

[redacted]ean coal transportation to Big Bend

- No ocean transportation bids were received
  - Consistent with the extremely limited number of barges that are of sufficient size to compete with TECO Transport's ocean-going fleet
- TECO Transport operates the only multi-vessel fleet of US-flag Jones Act ships and tug-barge units over 20,000 short tons capacity in the nation
- Only two large barges over 25,000 short tons capacity are in service at this time
  - Both of these barges are actively engaged in domestic and government-impelled preference grain trades
  - One ship and one integrated tug-barge (ITB) unit, both over 25,000 short tons are committed to industrial customers and utilities
    - The ship is a self-unloader substantially committed to Public Service Electric and Gas
    - The ITB is committed to the sugar trade between Hawaii and the US Pacific coast
- No other ships or barges are configured for and active in bulk cargo transportation in the Jones Act trade
- The ocean movement of coal from the Lower Mississippi to the Big Bend Station therefore falls to the capacity and economics of the TECO Ocean fleet

[redacted]

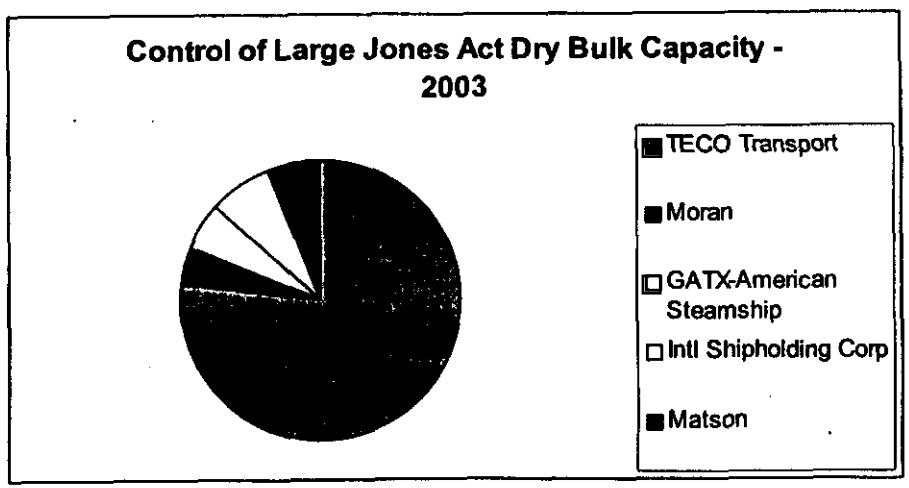
mpa Electric Ocean Coal Transportation

y one large tug-barge unit exists to compete on scale and all non-TECO Transport sels are occupied in the preference and/or domestic trades

Jones Act Drybulk Ships and Ocean-going tug-barges over 20,000 short tons capacity at full draft

	Ships	Tug-Barges	Total	Capcity ST	Ave Cap	Comment
TECO Transport	3	12	15	462,000	30,800	Active in domestic and preference trades
Moran		1	1	27,000	27,000	Active in domestic and preference trades
GATX-American Steamship		1	1	34,000	34,000	Active in domestic and preference trades
Intl Shipholding Corp		1	1	43,000	43,000	Coal-fired self-unloading collier, 66% of capacity committed to foreign-US coal trade
Matson		1	1	37,000	37,000	ITB primarily committed to Hawaiian sugar trade to US, some preference

Source: DMA based on US Army Corps, American Bureau of Shipping information



[redacted]

mpa Electric Ocean Coal Transportation

ply and demand for dry bulk vessels over 10,000 dwt are in precise balance

- The market is tight and rates reflect this situation
- Since the 2001 (the year that the latest detailed data is available for), the petroleum coke trade to Jacksonville has increased significantly, adding to demand under attractive market conditions
- Vessel owners occupy contractual niches that are rewarding, some for decades
- Older, less efficient equipment has been forced out of the market
- While TECO Transport retains some backup capacity to assure that it can meet Tampa Electric needs under any circumstances, the entire fleet is busy and enjoying this situation
- Some of the dry bulk fleet participates in the preference trades
- Some 10 – 20 smaller dry bulk barges also participate in the business on a limited basis, spending most of their time in specialized short-haul and low-volume movements

[redacted]

mpa Electric Coal Transportation

mpa Electric coal accounts for less than 35% of Jones Act demand which requires more n 800,000 dwt to meet all of the nation's needs

2001 US Coastwise Dry Bulk Transportation Demand

	Tons (mm)	Ton-Miles (mm)	Ave Dist	Pct Backhaul	Ave Size	Trips	Port Days	Barge Tons (000)	Pct Barge	DWT Reqd	Pct of Demand
Coal	12,854	8,194	637	0%	23	559	2	9,679	75%	377,238	47%
Coal Coke	16	10	625	0%	23	1	2	16	100%	509	0%
Petcoke	666	959	1,440	0%	35	19	2	374	56%	34,581	4%
Phos Fertilizer	179	140	782	85%	25	7	3	169	94%	5,143	1%
Potassic Fertilizer	13	14	1,077	50%	23	1	3	13	100%	556	0%
Fertilizers	1,414	1,238	876	80%	23	61	3	1,253	89%	43,717	5%
Pulp and Waste	46	70	1,522	0%	5	9	3	41	89%	3,631	0%
Iron & Steel Scrap	404	363	899	0%	5	81	3	388	96%	21,913	3%
Aluminum ore	273	185	678	0%	5	55	3	273	100%	12,332	2%
Non Ferrous ore	15	12	800	0%	5	3	3	15	100%	767	0%
Limestone	1,603	706	440	75%	20	80	3	1,601	100%	41,043	5%
Phosphate rock	1,736	1,517	874	90%	23	75	3	1,735	100%	61,776	8%
Clay	8	8	1,000	0%	5	2	5	2	25%	385	0%
Salt	48	79	1,646	0%	5	10	5	30	63%	3,771	0%
Wheat	176	327	1,858	0%	14	13	6	154	88%	18,434	2%
Corn	35	68	1,943	0%	20	2	6	34	97%	4,070	1%
Rice	68	190	2,794	0%	20	3	6	24	35%	7,271	1%
Soybeans	6	13	2,167	0%	20	0	6	6	100%	779	0%
Grain mill products	502	807	1,608	0%	15	33	6	488	97%	50,443	6%
Animal feeds	110	285	2,591	0%	15	7	6	35	32%	10,928	1%
Sugar	1,223	1,813	1,482	0%	18	68	6	1,042	85%	106,689	13%
	21,395	16,998	794			1089		17,372	81%	805,975	100%

Source: DMA analysis of Army Corps of Engineers Waterborne Commerce Statistics

[redacted]

mpa Electric Ocean Coal Transportation

fleet totals 800,000 tons of active capacity

JONES ACT US-FLAG DRY BULK BARGES OVER 10,000 SHORT TON DEADWEIGHT

Operator	Barge	Ship	DWT	Cargo Holds	Cargo Gear	Comment
TECO		Cynthia Fagan	40,853	Dry bulk holds		Pet coke and preference
TECO		Judy Litrico	32,100	Dry bulk holds		Pet coke and preference
TECO		Shiela McDevitt	36,900	Dry bulk holds	Cranes 4x25	Jax Coke
TECO	Marie Flood		37,768	Dry bulk holds		Preference
TECO	Barbara Vaught		19,256	Dry bulk holds		TEC and grains
TECO	Peggy Palmer		37,700	Dry bulk holds		TEC
TECO	Gayle Eustace		36,659	Dry bulk holds	Dry bulk-Grabs	TEC
TECO	Pat Cantrell		36,906	Dry bulk holds		Pet coke
TECO	Doris Guenther		25,506	Dry bulk holds		Preference
TECO	Mary Turner		42,400	Dry bulk holds	Dry bulk-conveyor	TEC
TECO	Diana T		28,000	Dry bulk holds	Dry bulk-conveyor	TEC
TECO	Louise Kirkpatrick		19,256	Dry bulk holds		Inactive in class
TECO	Thelma Collins		19,256	Dry bulk holds		Inactive not in class
TECO	Wanda Wheelock		19,256	Dry bulk holds		Inactive not in class
TECO	Dana Dunn		25,839	Dry bulk holds	Dry bulk-conveyor	Inactive not in class
TECO	Diane Ludwig		22,944	Dry bulk holds		Inactive in class
Allied Towing	Sugar Express		14,500	Dry bulk holds		Dedicated to sugar
Allied Towing	ATC-12000		12,000	Dry bulk holds		
Allied Towing	ATC-350		12,000	Dry bulk holds		
Allied Towing	Jonathan		14,500	Dry bulk holds		
Dixie Carriers	DXE 1800		18,000	Dry bulk holds		
Dixie Fuels	Amy Thompson		17,300	Dry bulk holds		Progress Egy Coal
Dixie Fuels	Louise Howland		17,400	Dry bulk holds		Progress Egy Coal
Dixie Fuels	Mickey Birdsall		17,300	Dry bulk holds		Progress Egy Coal
Dixie Fuels	Miss Dott-O		17,400	Dry bulk holds		Progress Egy Coal
GATX/AmShip	American Freedom		39,000	Dry bulk holds		Coastal and preference
Gateway	G.T. Bulkmaster		10,000	Dry bulk holds		
Moran	Virginia		27,000	Dry bulk holds		Puerto Rico grains
Moran	Portsmouth		14,700	Dry bulk holds		Preference
Moran	Somerset		14,700	Dry bulk holds		Preference
Moran	Bridgeport		14,000	Dry bulk holds		Northeast coal
Moran	Carolina		23,000	Dry bulk holds		Commit to scrap
Candies Offshore	COV Atlas		15,000	Dry bulk holds		
Candies Offshore	COV Zeus		17,360	Dry bulk holds		
Matson	HSTC-1		37,101	Dry bulk holds	Cranes 4x25	Dedicated to Pac. Trades
Intl Shipholding		Energy Independence	36,000	Dry bulk holds	Belt and boom unloader	PG&E's USGenNew England (2/3)
Express Marine	Thames		17,920	Dry bulk holds		
Total			886,780			

Source: DMA compilation from US Army Corps, American Bureau of Shipping, US Coast Guard, and commercial literature

111

[redacted]**ference Trade Analysis**

preference trade provides a timely and relevant basis to understand the earnings ential of ships and barges

Key: VESSEL – (Voyages Analyzed) $ Average/Average without lowest TC rate

TECO FLEET

ATB DIANE LUDWIG - (2) $ 11,979/$ 14,957

ATB GAYLE EUSTACE - (1) $ 13,793

TB LOUISE KIRKPATRICK - (2) $ 18,651/$ 23,800

ATB MARIE FLOOD - (4) $ 23,091/$31,456

ATB PAT CANTRELL - (2) $ 19,453/$ 26,222

ATB PEGGY PALMER – (1) 15,887

SHIP CYNTHIA FAGAN - (6) $ 22,914/$ 22,830

SHIP JUDY LITRICO - (2) $ 21,859/$ 2

(By way of comparison and reference, the US Army Corps. of Engineers operating cost estimates for 1999 set forth total fixed costs for 25,000 dwt and 60,000 dwt US-flag bulk carriers at about $ 27,000 and $ 33,000 per day. Both ships were assumed to be 7 years old)

OTHER US-FLAG VESSELS – JONES ACT QUALIFIED

ATB ENERGY FREEDOM – (2) $ 25,426/$ 26,888

TB PORTSMOUTH – (4) $ 17,294/$ 18,169

ITB HSTC-1 – (1) $ 30,469

OTHER US-FLAG VESSELS – NOT JONES ACT QUALIFIED (BUILT ABROAD)

SHIP OVERSEAS HARRIETTE – (7) $ 24,421/$ 26,458

SHIP OVERSEAS MARILYN – (7) $ 24,189/$ 25,788

SHIP LIBERTY GLORY- (3) $ 15,701

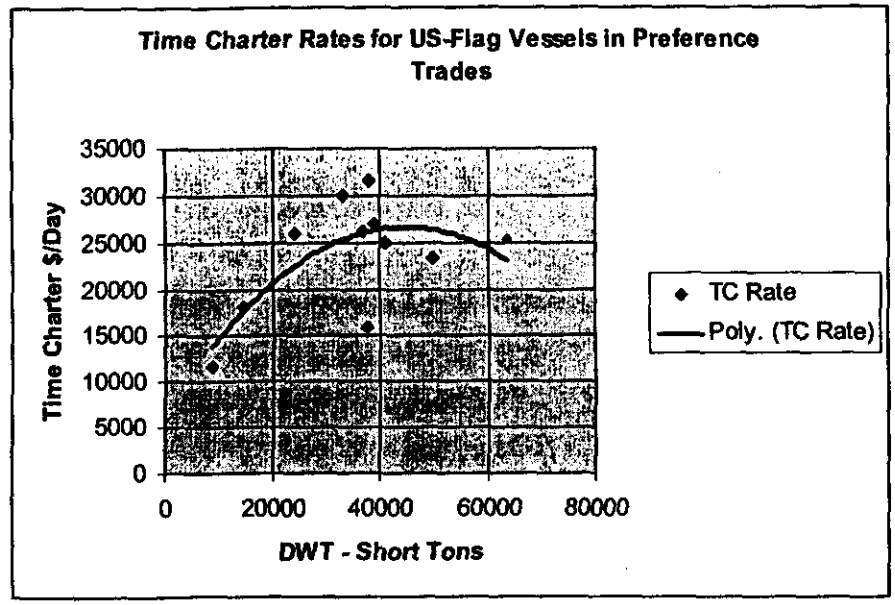
SHIP LIBERTY PANAMAX CLASS – (21) $ 25,287

SHIP LIBERTY GRACE – (3) $ 22,961/$ 23,305

Source: DMA analysis of more than 135 preference fixtures between 2000 and 2003, to develop net time charter (daily) earnings based upon revenues and deduction of estimated fuel, port, canal, loading, discharge costs, commission costs for each voyage at prevailing fuel prices. Particulars of these vessels are presented in Appendix D.

[redacted]mpa Electric Ocean Coal Transportation
[redacted]nings in the preference trade provide an indication of earnings

- The preference trades suggest that earnings peak for ships and tug-barges in the 40,000 dwt size
- This reflects their fit with large preference cargo lots and their ability to avoid excessive canal transit and lightering costs relative to larger ships of up to 64,500 dwt



[redacted]

mpa Electric Ocean Coal Transportation

Flag Jones Act barges earn less than the estimated preference potential for various sons

- The preference trade is seasonal, generally increasing in the autumn as the harvest and the end and beginning of the Federal fiscal year occur
- The trade tonnage varies in activity each year, driven by budgets and program funding, as well as international crises
- Ships and barges compete for cargoes that limit the number of cargoes available to Jones Act vessels
- Many Jones Act vessels are fully occupied in Jones Act domestic coastwise trades
- Some Jones Act vessels are engaged in other specialized voyages from time to time

[redacted]mpa Electric Ocean Coal Rates

- DMA calculated the minimum required time charter earnings of each of the seven TECO Transport tug-barge units that are categorized as "core" to Tampa Electric's coal movements
  - Earnings were based on depreciated replacement value, remaining life, and an overall return on capital
  - Allowances for some rehabilitation of older barges was allowed
  - All operating costs were built up to determine the rates for Davant-to-Big Bend deliveries
- These minimum rates were then averaged with the preference rates, providing a mid-point between the minimum value and the maximum value
- Tampa Electric's requirement for 5.5 million tons of coal was then costed based on the required freight rates, starting with the lowest cost vessel and its annual delivery capacity, and increasing to the next higher rate and its annual delivery capacity
  - Although seven vessels are in the core fleet, about 4.7 vessels are required to meet this demand
- The rate was determined as the average rate needed to move the maximum volume of coal
  - Some vessels required rate is above the average cost and some below
  - This provides TECO Transport with flexibility, but ensures that the time charter rates are an average
- In the absence of TECO Transport's large and efficient barges, actual rates would be higher, reflecting tight utilization of smaller barges with higher cost structures – even assuming that enough barge capacity could be assembled to meet Tampa Electric's requirements

115

[redacted]mpa Electric Ocean Coal Transportation

roximately 4.67 of the seven barges assigned to the Tampa Electric core pool are essary to move the maximum volume

- To transport 5.5 millions tons, the average market rate is $ 7.98

Rate Build-Up and Composition

Barge	Est Rate	Capacity/Yr	Tons/Yr 000	Cum Tons	Cum Cost $ 000's	Ave Rate	Rate to Est
Doris Guenther	$ 7.01	1,178	1,178	1,178	8,257.78	$ 7.01	$ 0.97
Peggy Palmer	7.90	1,207	1,207	2,385	17,793.08	7.46	$ 0.08
Gayle Eustace	8.30	1,797	1,797	4,182	32,708.18	7.82	$ (0.32)
Diane Ludwig	8.36	866	866	5,048	39,947.94	7.91	$ (0.38)
Diana T	8.76	672	452	5,500	43,907.46	7.98	$ (0.78)
Mary Turner	9.41	1,051	-	5,500	excluded from analysis		
Barbara Vaught	10.67	866	-	5,500	excluded from analysis		
		000 tons		000 tons			

Source: DMA analysis of TECO Transport Ocean required rates

116

[redacted]mpa Electric Ocean Coal Transportation

escalation factors are based on the composition of the vessels required

- The fixed component is 35% of the total

Composition Per Ton

	Fuel	Fixed	Variable	Total
Doris Guenther	0.69	2.57	3.76	7.01
Peggy Palmer	1.00	3.06	3.84	7.90
Gayle Eustace	0.59	2.76	4.95	8.30
Diane Ludwig	1.13	3.37	3.87	8.36
Diana T	1.49	1.81	5.46	8.76
Mary Turner	1.17	3.07	5.18	9.41
Barbara Vaught	1.06	4.05	5.56	10.67
Weighted Avg.	**0.860**	**2.803**	**4.323**	**7.986**
Component Share	**11%**	**35%**	**54%**	**100%**

Source: DMA analysis

117

[redacted]

mpa Electric Ocean Coal Transportation

alternative rate in the event that Tampa Electric acquires pet coke from East Texas ners is $ 10.88 per ton

- This rate is based on loading at one of three terminals in the Port Arthur/Beaumont area
- This rate is based on the time charter earnings of the barge PEGGY PALMER to Big Bend at the same daily time charter rate
  - The PEGGY PALMER was chosen because its required rate is closest to the Davant-Big Bend average
- The escalation composition of this movement is:

Components of Costs	per ton	
Fuel	1.52	14%
Fixed	4.17	38%
Variable	5.19	48%
	10.88	100%

118

Dibner Maritime Associates LLC

VII. Rate Summary

[redacted]

e Summary

average total recommended rate is $17.90, $0.79 less than the comparable current rage rate of $18.69

	Current	Recommended	
Inland	$8.15	$7.47	per short ton
Ocean	8.32	7.98	
Terminal	2.22	2.45	
Total Rate	$18.69	$17.90	

- Adjustment to these rates should be calculated quarterly according to the fixed, variable, and fuel components presented in each section
  - No adjustments will be made to the terminal rate
- Variable component to be adjusted by dividing the 3-month average of the Consumer Price Index and Producer Price Index for the period by the indices' values at the beginning of the contract period and multiplying the result by the variable cost components presented in this report
- Fuel component to be adjusted by dividing the average Platts Oilgram Gulf Coast Waterborne No. 2 Fuel Oil Price - Low for all days for which a price is reported in the quarter by the fuel cost component presented in this report

120

Dibner Maritime Associates LLC

Appendices

[redacted]pendix A: Glossary

- ATB – Articulated Tug-Barge – an ocean-going tug and barge that is equipped with a mechanical connection between tug and barge that permit the tug to continuously push the barge at higher speed than can be achieved by towing the barge behind the tug
- Bareboat charter – a rental arrangement, usually
- Charter – a rental agreement for a ship. Can take many forms, the most typical being a rate per day (time charter) for a period of time, with all additional costs for fuel, port expenses, and cargo handling being borne by the charterer and not the vessel owner/operator
- Class – the comprehensive technical certification of a vessel for intended service on oceans or other waters by a classification society, based upon inspections afloat and in drydock, maintenance records, and design features
- Coastwise – cargo moving from one port to another via the open sea
- Covered Hopper Barge – an inland hopper barge with steel or fiberglass covers that protect weather sensitive cargoes such as grain, fertilizer, sugar, cement, some types of steel, and lime
- Deadweight – the carrying capacity of a ship or barge in tons. Technically deadweight includes the weight of fuel, water, lube oil, supplies, and the crew, which are usually a small percentage of the deadweight. On barges, virtually all deadweight is cargo.
- Demurrage – time-based fees paid by a part to the vessel owner for delaying or detaining the vessel beyond a specified period of time
- Draft – the distance a vessels extends down into the water

[redacted]

ppendix A: Glossary

- Dry Bulk Carrier – a ship or barge designed with one or more large open cargo holds that is designed to carry a large volume of granular bulk cargo. As distinct from tankers for bulk liquids, freighters or containerships for merchandise
- Fleeting – the service of mooring barges before or after loading, while en route, or as they await cleaning or repairs
- Gear – cranes or other equipment on an ocean-going ship or barge to unload or load cargo. Typically electro-hydraulic cranes that can lift grab buckets are fitted on some dry bulk ships.
- Government-impelled "Preference Trades" – Federally-controlled grain and cooking oil export programs that are administered by the Departments of State and Agriculture to assist developing and and less developed nations with a combination of grants and loans to provide food aid. Some programs are tied to charities, others to various legislation. All programs reserve 75% of the trade for US-flag ships or qualified tugs and barges. Transportation services are conducted by competitive bidding in most cases.
- Gulf Intracoastal Waterway – a narrow 10-foot deep channel running along the coast of the Gulf States as far east as St. Marks, FL for inland barges and towboats
- Hopper barge – a river barge with a large space to carry granular cargoes in a single compartment

[redacted]**pendix A: Glossary**

- ITB – Integrated Tug-Barge – an ocean-going tug and barge that mechanically locked together with no movement and operate as a single unit all the time, effectively as a ship
- Jones Act – a Federal law requiring that all cargo moving within the nation be transported in ships that are –built, -owned, - managed, - crewed, and - registered in the United States
- Jumbo – inland river barges 195 feet long by 35 feet wide, or 200 feet long by 35 feet wide
- Lock – a dam-like structure that forms a pool of water that is relatively slow-flowing and deep to support navigation, usually in a river system that runs towards the sea. Lock chambers determine the maximum number of barges and towboat(s) that can transit in a single lock operation
- Making or breaking a tow – the process of sorting, assembling, and lashing barges together, or the reverse
- Open Hopper Barge – an inland hopper barge with no covers. Used to carry coal, coke, scrap, gravel, and other weather-insensitive cargoes
- Preference Trade – see "Government-impelled….."
- Shifting – moving a barge or ship from one berth to another, usually within a port area
- Short ton – a ton of 2,000 pounds
- (a) Tow – a towboat pushing one or more inland river barges that are lashed together

[redacted]

pendix A: Glossary

- Time charter – a contract for the rental of a vessel, typically expressed in dollars per day. Includes the vessel and crew, ready to operate as instructed. Fuel, port costs, canal fees, and cargo handling costs are additional.
- Towboat – a square-bowed vessel designed to push barges on the inland river system. Towboats of different powers are deployed on various waterways, consistent with the size of tows
- Tug-Barge – an ocean-going tug and ocean-going barge not equipped with ATB or ITB technology. In most sea conditions, the tug must tow the barge at a slower-than-pushing speed
- Tugboat – a ship-shaped vessel designed to push or tow a large ocean barge during a sea passage

[redacted]

ppendix B: Inland Model Description
v Operations

- Cook fleet/Metropolis, IL will serve as the place to build Lower Mississippi tows
- Coal barge loadings reflect drafts at docks and locks, and barge fleet characteristics
  - 1,600 tons at locked Ohio River load points
  - 1,500 tons from the two Green River docks
  - 1,640 tons at the downriver docks when lock transits are seasonally not required
- Tow sizes also reflect average practices for maximum tow sizes:
  - 4 barges on Green River
  - 8 barges on Tennessee River
  - 15 barges on the Ohio River to Cook
  - 30 barges on the Lower Mississippi
  - 20 barges on the Middle Mississippi River
- Towboat sizes are based on customary practices as determined by tow size and river operating conditions
  - 8,400 on the Mississippi River
  - 5,600 on the Ohio River
  - 1,800 on the Green and Tennessee Rivers
- Barges wait for towboat pick-up in accordance with the volumes that are moving, up to a three-day maximum Towboats wait 0.75 hour per barge when making or breaking tow
- A delay factor of 15% is added to the total cycle time of each tow
- All barges are assumed to be unloaded to "tractor standard" and are not cleaned further
- The costing was performed using Tampa Electric times to load and discharge
  - DMA used a total of 7.5 total port days, resulting in a 1.5-day demurrage beyond the 6.0 "free days" called for in WB-2004

126

[redacted]pendix B: Inland Model Description
[redacted]w Costs

- Barge hire is $50/day and includes the capital and fixed operating costs of operating the barge (insurance, documentation, supervision, maintenance, and repair)
  - Calculated by DMA based on historical earnings and operating costs
  - Of this, $33 is a fixed capital cost and $17 represent variable operating costs
- Towboat cost per hour is the non-fuel cost of employing the towboat and is based upon US Army Corps. of Engineers (COE) data and varies with the horsepower of the towboat
  - 8,400 HP: $292 per hour of which $49 per hour is fixed capital cost
  - 5,600 HP: $220 per hour of which $33 per hour is fixed capital cost
  - 1,800 HP: $70 per hour of which $11 per hour is fixed capital cost
- Fuel consumption is based on the installed horsepower of the towboat and operating characteristics of the river, using COE data and DMA analysis
  - 8,400 HP: 250 gallons per hour
  - 5,600 HP: 112 gallons per hour
  - 1,800 HP: 60 gallons per hour
- Barge handling charges are based on interviews, published rates, and industry knowledge regarding customary discounts
  - Make/break tow: $60 per barge
  - Shifting: $100 per hour
  - Fleeting: $18 per day
- G&A costs based on DMA analysis of operator financial filings
  - $0.74 per loaded barge mile

[redacted]

ppendix C: Ocean Rate Background
CO Transport Cargo Activity and Fleet Deployments

- **Tampa Electric Coal – Core Fleet**
  - *Carrying the majority of coal and pet coke delivered to TEC power plants. Operating in conjunction with wet phosphate trading as a backhaul to the Mississippi River*
  - ATB GAYLE EUSTACE
  - TB MARY TURNER
  - TB DIANA T
  - *Carrying TEC coal and dry fertilizer from Tampa to various destinations in Louisiana and Texas*
  - TB PEGGY PALMER
- **Grain Trading**
  - *Carrying grains and feed mill products to Tampa, San Juan Puerto Rico and other locations*
  - TB BARBARA VAUGHT
- **In-Class Reserve Status**
  - LOUISE KIRKPATRICK
- **Out-of-Class Reserve Status**
  - DIANA LUDWIG
  - WANDA WHEELOCK
  - DANA DUNN
- **Pet Coke Trading**
  - *Carrying petroleum coke from East Texas and the Lower Mississippi River to utilities in Jacksonville, FL. Occasional TEC voyages when export scheduling permits*
  - Ship SHIELA MCDEVITT
  - ATB PAT CANTRELL
- **Preference Grain Trading**
  - *Carrying government-impelled grains cargos (donated or financed) to developing and less developed nations under State Department and/or Department of Agriculture programs. Occasional TEC voyages when export scheduling permits.*
  - Ship JUDY LITRICO
  - Ship CYNTHIA FAGAN
  - ATB MARIE FLOOD
  - ATB DORIS GUENTHER
- **Other Trading**
  - *Domestic and international voyages not listed above are handled by the fleet consistent with scheduling*

Abbreviations: ATB = articulated tug/barge unit (tug and barge mechanically linked) TB – tug usually tows barge at sea

[redacted]

pendix C: Ocean Rate Background
CO Ocean Fleet

- The TECO Ocean fleet was evaluated with respect to:
  - The technical (configuration, speed, power, cargo handling), cargo capacity (cubic volume, tonnage capacity) and operating characteristics of the ships, ocean tugs, and ocean-going barges in the fleet
  - The operating costs for crew, stores, supplies, repair, drydocking, insurance, and management
  - The voyages costs for fuel (propulsion at sea and generating), tugs and pilots
  - The capital costs and values of the vessels considering:
    - Depreciated replacement costs
    - Earnings potentials in the preference trades based on competitive economics
    - Capital invested in major reconstruction and expansion projects
    - Acquisition costs where relevant
  - The sale and leaseback of four ocean barges and three oceangoing tugs by TECO to financial institutions
  - The age, remaining service life expectations, and classification society inspection/approval status of each vessel
  - All aspects of this analysis were performed based on publicly-available information about TECO Transport, some scheduling information provided by Tampa Electric, and general industry knowledge
    - Information about TECO Transport's costs and financial performance is limited

[redacted]pendix C: Ocean Rate Background
[redacted]CO Ocean

- TECO Ocean's business was evaluated with respect to:
  - Major third-part business commitments for:
    - pet coke for other utilities
    - Grain and grain products to consignees in Puerto Rico
    - Wheat and grain mill products to consignees in Tampa
    - Wet phosphate rock to Louisiana
    - Dry phosphate fertilizers to Louisiana and Texas
    - Government-impelled preference grain shipments
  - Technical features required for these commitments including:
    - Sizes and features necessary to compete with other vessels in preference and domestic trades
    - Shipping limitations (typically draft, length, and breadth)
    - Low air draft to fit under bridges in Tampa to deliver grain

DOCKET NO. 031033-EI
FILED: JANUARY 5, 2004

EXHIBIT TO THE TESTIMONY OF

BRENT DIBNER

DOCUMENT NO. 2

REVISED PAGES TO THE "ASSESSMENT OF MARKET TRANSPORTATION RATES AND COSTS FOR TAMPA ELECTRIC DOMESTIC MARINE COAL DELIVERY" REPORT

[redacted]

ckground

npa Electric's contract structure with TECO Transport incorporates fixed, variable, and charges

- Fixed and variable rates for each origin point
- Two components of full rate structure
  - Fixed component provides a return on capital (for barges, towboats, ships, and tug boats)
  - The variable component covers all costs that are not related to capital recovery:
    - On-board operating costs (crew, stores & supplies, insurance, maintenance & repair)
    - General management expenses
    - Voyage expenses (e.g. shift boats, tugs, pilots, dockage, fleeting, wharfage)
    - Cargo expenses (hold cleaning, etc.)
    - Fuel cost separately adjusted for changes in fuel price
      - Keyed off of Platts Oilgram Gulf Coast Waterborne No. 2 Fuel Oil Price - Low
      - Permits more effective hedging against fuel price fluctuations
- Escalation of variable costs with the average of the Consumer Price Index-All Items Less Energy (CPI) and Producer Price Index-Industrial Commodities Less Fuels (PPI)

132

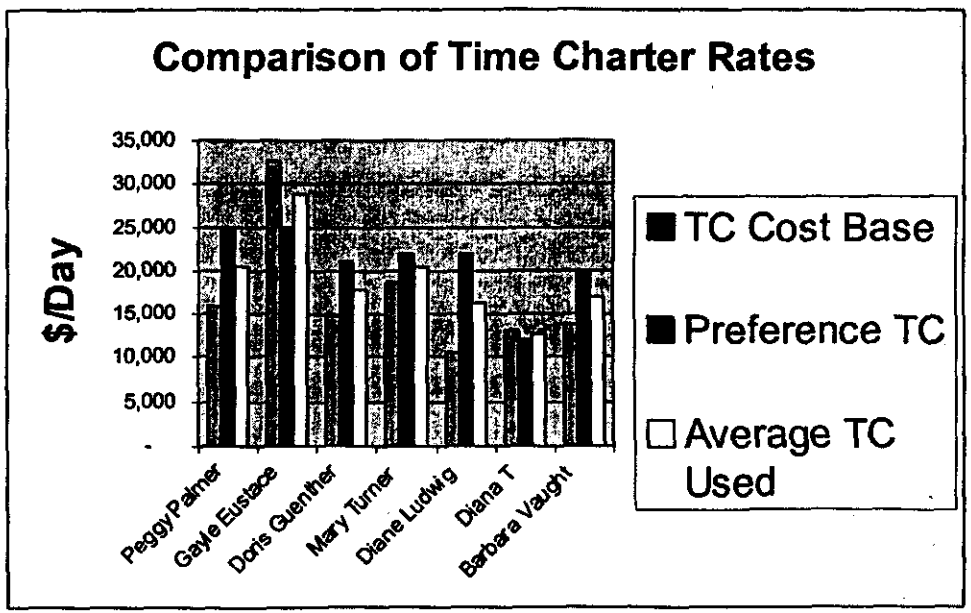
[redacted]**mpa Electric Ocean Coal Transportation**

Flag Jones Act barges generally earn less than the estimated preference potential for ous reasons

- The preference trade is seasonal, generally increasing in the autumn as the harvest and the end and beginning of the Federal fiscal year occur
- The trade tonnage varies in activity each year, driven by budgets and program funding, as well as international crises
- Ships and barges compete for cargoes that limit the number of cargoes available to Jones Act vessels
- Many Jones Act vessels are fully occupied in Jones Act domestic coastwise trades
- Some Jones Act vessels are engaged in other specialized voyages from time to time

133

CONFIDENTIAL



[redacted]

mpa Electric Ocean Coal Rates

- DMA calculated the minimum required time charter earnings of each of the seven TECO Transport tug-barge units that are categorized as "core" to Tampa Electric's coal movements
  - Earnings were based on depreciated replacement value, remaining life, and an overall return on capital
  - Allowances for some rehabilitation of older barges was allowed
  - All operating costs were built up to determine the rates for Davant-to-Big Bend deliveries
- These minimum rates were then averaged with the preference rates, providing a mid-point between the minimum value and the maximum value
- Tampa Electric's requirement for 5.5 million tons of coal was then costed based on the required freight rates, starting with the lowest cost vessel and its annual delivery capacity, and increasing to the next higher rate and its annual delivery capacity
  - Although seven vessels are in the core fleet, about 4.7 vessels are required to meet this demand
- The rate was determined as the average rate needed to move the maximum volume of coal
  - Some vessels required rate is above the average cost and some below
  - This provides TECO Transport with flexibility, but ensures that the time charter rates are an average
- In the absence of TECO Transport's large and efficient barges, actual rates would be higher, reflecting tight utilization of smaller barges with higher cost structures – even assuming that enough barge capacity could be assembled to meet Tampa Electric's requirements

1134

[redacted]mpa Electric Ocean Coal Transportation

roximately 5.5 of the seven barges assigned to the Tampa Electric core pool are essary to move the maximum volume

- To transport 5.5 millions tons, the average market rate is $ 8.01

CONFIDENTIAL

Rate Build-Up and Composition

Barge	Est Rate	Capacity/Yr	Tons/Yr 000	Cum Tons	Cum Cost $ 000's	Ave Rate	Rate to Ave
Peggy Palmer	7.47	1,111	1,111	1,111	8,292.86	$ 7.47	$ 0.54
Gayle Eustace	7.66	1,447	1,447	2,558	19,376.17	$ 7.57	$ 0.35
Doris Guenther	8.05	877	877	3,435	26,440.75	$ 7.70	$ (0.04)
Mary Turner	8.09	1,024	1,024	4,459	34,726.73	$ 7.79	$ (0.08)
D Ludwig	8.73	756	756	5,215	41,321.32	$ 7.92	$ (0.72)
Diana T	9.58	560	285	5,500	44,052.98	$ 8.01	$ (1.58)
Barbara Vaught	11.35	585	-	5,500	44,052.98	$ 8.01	$ (3.34)
		000 tons		000 tons			

135

[redacted]

mpa Electric Ocean Coal Transportation

escalation factors are based on the composition of the vessels required

- The fixed component is 49% of the total

CONFIDENTIAL

Composition Per Ton

	Fuel	Fixed	Variable	Total
Peggy Palmer	0.99	3.72	2.75	7.47
Gayle Eustace	0.67	4.25	2.74	7.66
Doris Guenther	0.86	3.85	3.34	8.05
Mary Turner	1.05	3.66	3.38	8.09
D Ludwig	1.14	4.14	3.44	8.73
Diana T	1.59	3.01	4.98	9.58
Barbara Vaught	1.20	5.75	4.39	11.35
Weighted Avg.	**0.950**	**3.890**	**3.170**	**8.01**
Component Share	**11.9%**	**48.6%**	**39.6%**	**100%**

136

[redacted]mpa Electric Ocean Coal Transportation

[redacted]alternative rate in the event that Tampa Electric acquires pet coke from East Texas [redacted]ers is calculated $ 10.90 per ton

- This rate is based on loading at one of three terminals in the Port Arthur/Beaumont area
- This rate is based on the time charter earnings of the barge DORIS GUENTHER to Big Bend at the same daily time charter rate
  - The DORIS GUENTHER was chosen because its capacity encompasses the average tonnage and its speed positions it to handle the longer trip efficiently
- The escalation composition of this movement is:

CONFIDENTIAL

137

Components of Cost

	Per Ton	Pct of Total
Fuel	1.30	12%
Fixed	5.19	48%
Variable	4.41	40%
Total	10.90	100%

[redacted]**e Summary**

average total recommended rate is $17.93, $0.76 less than the comparable current rage rate of $18.69

	Current	Recommended	
Inland	**$ 8.15**	**$ 7.47**	**per short ton**
Ocean	**8.32**	**8.01**	
Terminal	**2.22**	**2.45**	
Total Rate	**$ 18.69**	**$ 17.93**	

- Adjustment to these rates should be calculated quarterly according to the fixed, variable, and fuel components presented in each section
  - No adjustments will be made to the terminal rate
- Variable component to be adjusted by dividing the 3-month average of the Consumer Price Index-All Items Less Energy and Producer Price Index-Industrial Commodities Less Fuels for the period by the indices' values at the beginning of the contract period and multiplying the result by the variable cost component presented in this report
- Fuel component to be adjusted by dividing the average No. 2 Oil Contract Price-Low posted in Platt's Oilgram for all days for which a price is reported in the quarter by the fuel cost component presented in this report

138