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

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

PREPARED DIRECT TESTIMONY

OF

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ON BEHALF OF

TAMPA ELECTRIC COMPANY

Q. Please state your name and business address.

A. My name is Brent Dibner. My business address is Dibner Maritime Associates, LLC, 151 Laurel Road, Chestnut Hill, Massachusetts 02467.

Q. By whom are you employed and in what capacity?

A. I am President of Dibner Maritime Associates, LLC, ("DMA") a firm that I founded in 2002. I am responsible for directing DMA as it provides management consulting services to the maritime industry.

Q. Please describe your educational background and business experience.

A. I earned a Bachelor of Science in Engineering degree in Naval Architecture and Marine Engineering from the

University of Michigan in 1973. In 1977 I graduated from the Harvard Graduate School of Business Administration with a Master's of Business Administration degree.

My professional experience in the maritime industry began during my undergraduate engineering studies. In 1971 I served an apprenticeship in the Small Ship Division of Swan Hunter Shipbuilders in England, and in 1972 I was employed as a trainee engineer at John J. McMullen Associates in New York City. After graduation I worked between 1973 and 1975 as a naval architect and marine engineer at John J. McMullen Associates in New York City and at Israel Shipyards in Haifa, Israel. I was involved in the design of commercial cargo ships and military ships at both employers.

In 1975 I entered the Harvard Business School, and during the summer of 1976 I was employed as a management consultant in the Maritime Group of Temple, Barker & Sloane ("TBS") of Wellesley, Massachusetts, working on various maritime matters. Upon graduation, I joined TBS as a consultant in its Maritime Group. Between 1977 and 2002, I advanced to the position of Vice President and Senior Partner of TBS and its successor, Mercer Management Consulting. Throughout this time, I was

responsible for a substantial portion of the management consulting services that TBS or Mercer provided. I directed the firms' services in the areas of maritime and bulk logistics, with emphasis on bulk shipping and energy production and processing. During the course of my career, I was frequently involved in diverse aspects of maritime transportation and bulk logistics including ocean transportation, bulk port and terminal facility development, inland river transportation, port operations and vessel operations for many clients in the United States and throughout the world.

In 2002, after 25 years at Mercer, I decided to leave the company to continue my focus on the maritime industry. I founded DMA with the support of Mercer and permission to continue to serve past and current clients with the intellectual capital developed during my career. DMA's team of associates serves clients throughout the world.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address the reasonableness and appropriateness of Tampa Electric's Request for Proposals ("RFP") and to present my evaluation of the RFP process and the bids received. My

testimony also describes the current state of the waterborne transportation market and presents my findings and recommendations to Tampa Electric as to how to fulfill its needs for waterborne transportation services. My testimony lists the market rates for each segment of the waterborne transportation network. Finally, my testimony addresses the issue of whether Tampa Electric's benchmark for waterborne coal transportation costs is still useful and sufficient for evaluating the reasonableness of the company's transportation costs.

Q. Have you prepared an exhibit in support of your testimony?

A. Yes, Exhibit No. ___ (BD-1), consists of two documents. Document No. 1 is my report to Tampa Electric, which is entitled, "Assessment of Market Transportation Rates and Costs for Tampa Electric Domestic Marine Coal Delivery." The report includes descriptions of the bid evaluations and my market models along with my recommendations to Tampa Electric. Document No. 2 contains revised pages of my report, which were corrected in December 2003.

Q. By what experience or knowledge are you qualified to assist Tampa Electric in developing its RFP, evaluating

solicitation responses and modeling the market for waterborne coal transportation services?

A. In addition to the responsibilities and experience I described above, in the course of my professional work I have advised and supported shippers and consignees in structuring a variety of transportation arrangements, including coal transportation for electric utilities such as Tampa Electric, Seminole Electric, Houston Power and Light, New England Electric and Virginia Electric Power. My work has included assisting electric utilities estimate coal transportation costs, examine the performance and marine operations of companies that deliver coal to utilities, request and evaluate bid responses, evaluate the potential costs of specific inland barge routes and specific ocean routes, evaluate the costs of specific oceangoing vessels and design services to compete with railroad transportation services. I have also helped carriers successfully bid on long term business, including a bid for more than three million tons per year of municipal solid waste business for the City of New York.

I have prepared testimony and testified before various state and federal bodies. On two prior occasions, my

reports pertaining to Tampa Electric's coal movements have been provided to this Commission. I have appeared before federal courts, the Federal Maritime Commission, the Florida State Pilotage Board and the United States Senate to present my findings on matters related to the maritime industry, economic impacts, economics, antitrust behavior, contract damages and other issues.

Waterborne Transportation Market

Q. What is the current status and economic health of the waterborne coal and dry bulk transportation and terminal industry?

A. I will structure my answer in three parts. First, I will address the inland river industry with an emphasis on the dry bulk sector in general and coal transportation in particular. Secondly, I will address the dry bulk terminal services activity on the lower Mississippi River given the location of the company's sources of coal. Finally, I will address the U.S. flag Jones Act dry bulk transportation segment.

Q. What is the current status and economic health of the inland river dry bulk or coal transportation segment?

A. This inland river dry bulk or coal transportation industry generally finds itself experiencing soft barge demand utilization, which has been created by weaker than expected demand and higher than desired supply. Consequently barge rates and earnings have suffered. The largest and presumably strongest and most stable inland barge company, American Commercial Lines, entered into Chapter 11 bankruptcy re-organization in late 2002, which is indicative of the state of earnings for companies in this industry.

While no solvent barge lines with barge and towboat ownership and operations are currently filing public financial statements with the Securities and Exchange Commission, spot rate levels for grain and coal have generally reflected difficult operating conditions. For example, barge earnings tracked through 2001 for the largest coal carrier do not indicate any upward movement during the past eight years.

The overall situation for cargo transportation has been very challenging for barge lines. United States grain exports have been restrained this year by strong exports from China. Low farm prices continue to reduce domestic fertilizer demand, which affects northbound barge

traffic. United States industrial activity that supports northbound activity has also been weaker than in past years. High utility coal stocks have also reduced the demand for some coal transportation.

These forces for weaker barge demand have been compounded by continued growth of the size of covered and open hopper barge fleets. As deliveries of new barges have exceeded scrapping in recent years, the supply of inland barges has increased relative to stagnant or declining demand.

Finally, weak conditions in the industry have led to continued consolidations of barge lines, as some owners seek to exit the industry or avoid massive investments that will be needed to replace aging equipment that was delivered during building booms in the 1970's and early 1980's. Many barges are approaching the end of their useful lives and must be replaced to avoid very high maintenance costs and operating problems.

Q. What is the current status and economic health of the dry bulk terminal services segment?

A. For the dry bulk terminals on the lower Mississippi

River, the conditions described above are affecting export and import volumes. Coal exports have declined. Imports of coal have remained stable but without substantial growth.

Q. What is the Jones Act and the current status and economic health of the U.S. flag Jones Act dry bulk ocean shipping segment?

A. The Jones Act is a federal law that requires that all domestic cargo be carried in vessels that are owned by U.S. citizens, built and registered in the United States and crewed by U.S. citizens. The U.S. flag Jones Act transportation market consists of the demand to move dry bulk cargoes within the country, and the market for those movements has contracted. The larger ships and barges of the types that are most efficient for the trade between Florida and the U.S. Gulf coast were especially affected. Most notably, the volumes of phosphate rock and related fertilizers shipped from Florida to the Mississippi River have dropped sharply. This has led to the liquidation of one fleet of three large dry bulk tug-barge units. Some bright spots for the industry have been increasing tons of petroleum coke moving from several crude oil refining centers to Tampa and Jacksonville and some increased

movements of scrap steel towards a new electric furnace in North Carolina.

U.S. flag Jones Act vessels may also compete to provide transportation for U.S. government-impelled grain export programs (the cargo "preference trades") that donate grain, expedite grain donations or finance grain purchases to developing and less-developed nations. Seventy-five percent of the grain is required to be transported by U.S. flag vessels. In the past decade, the emphasis of the preference trades has shifted toward Asia and away from Central and South America. This has tended to favor larger ships and barges with a cargo capacity greater than 30,000 tons. As a consequence, three new ships have been added--two 50,000 ton capacity ships by Liberty Maritime and one 36,000 ton capacity ship by TECO Transport, all built abroad and modified to meet more rigorous U.S. safety standards. In addition, TECO Transport and one other tug-barge operator modified the connection systems between tugs and barges to permit the tugs to continuously push the barges in all sea states at higher speeds. These modifications have markedly increased the efficiency and capacity of the U.S. flag Jones Act fleet, while also improving the ability of the largest tug-barge units to compete with

ships. The preference trade tonnages have been volatile but have generally supported the existing fleet of barges and ships that participate in that trade, with attractive earnings being realized by vessels. These returns supported the investments described above.

Because of the additional capacity of the previously described new ships and the upgrading of more than 150,000 tons of cargo capacity of large tug-barge units, no new dry bulk barges or ships over 20,000 tons have been ordered from U.S. shipyards in more than 20 years. In addition, there is no near-term prospect for new construction. In 2001, the demand for the domestic market transportation totaled approximately 800,000 tons cargo capacity of ship and barge capacity. Supply of dry bulk barges over 10,000 tons capacity and dry bulk ships amounted to approximately 880,000 tons capacity, and four barges totaling 80,000 tons capacity were inactive. Consequently the market was in almost perfect balance. Since then, the petroleum coke trade to Jacksonville, Florida increased substantially, and the fertilizer trades stabilized. Consequently, the Jones Act fleet is in full employment.

The handful of the largest barges and ships of 30,000 to

40,000 tons capacity qualified for the Jones Act are generally focused on the preference trades, while participating opportunistically in the coastal trades. In recent years, larger, faster and more efficient diesel ships and large tug-barges have been added to the U.S. flag Jones Act and U.S. flag foreign trading fleets, improving efficiencies of the fleet. Older, less efficient ships and barges have been scrapped, sold to foreign owners or deactivated. Other than the Tampa Electric, Progress Energy Florida and Jacksonville Electric coal and petroleum coke trades, bulk movements along the Atlantic Ocean and Gulf of Mexico coasts are primarily composed of limestone, wheat, corn, animal feeds, scrap iron and sugar. In the Pacific, rice and sugar are the greatest bulk movements between Hawaii and the Pacific Coast. Thus, the larger vessels that would be the more efficient options for ocean coal shipping from the Mississippi River to Florida and bulk commodity shipping back to the Mississippi River area have lucrative options to instead service the preference trades described above.

Q. Please provide an overall assessment of the waterborne transportation market.

A. The inland market is recovering from a slowing economy and increased supply. The largest carrier is in bankruptcy and will either emerge or be liquidated. Rates for this segment cannot fall further and be maintained at lower levels for any sustained period of time. The lower Mississippi River river-to-ocean barge terminal services market is dominated by two major companies that are adjusting to reduced demand, even as many of their costs are fixed. Consequently they are fighting aggressively for business. The ocean segment is in balance, with full employment in the domestic sector and additional demand created by the U.S. government's preference trade programs.

Bid Solicitation

Q Please describe your activities in assisting Tampa Electric with the preparation and issuance of its June 27, 2003 RFP for coal waterborne transportation services commencing in January 2004.

A. My activities involved a review of the RFP and a review of the list of companies that were to be directly invited to bid. I provided Tampa Electric with the names of several additional companies that I felt might be interested in bidding.

Q. In your opinion, did Tampa Electric make the bid known to a wide range of potential suppliers?

A. Yes, I believe so. In total, Tampa Electric directly provided its RFP to 24 potential bidders. Tampa Electric provided notice of the RFP to industry publications, which served to notify other potentially interested bidders who then received copies of the solicitation.

Q. Do you consider Tampa Electric's bid solicitation to be fairly representative of bid solicitations commonly used to secure waterborne coal transportation and terminal services?

A. Yes, I do. The terminology, requirements, conditions, rates of cargo handling, and other operating specifications are ones that are common in the industry and would be familiar and easily understood by prospective bidders. The bid solicitation represents the distinctive requirements of the necessary movements for Tampa Electric's needs--inland barge, inland barge to ocean vessel and U.S. flag Jones Act ocean bulk vessel.

Q. Please describe the three segments of waterborne transportation for which Tampa Electric requested

proposals from service providers.

A. The three segments of waterborne coal transportation requested by Tampa Electric are the inland river barging segment, the inland river-to-ocean vessel terminal segment and the ocean transportation segment. The inland river barge movement takes place on one or more rivers in the greater Mississippi River system. In each move, coal is dumped at a coal-loading dock into a jumbo open hopper barge designed to transit the rivers. A barge of this type is 195 or 200 feet long by 35 feet wide and is typically loaded to a minimum of eight feet of water depth. Such barges have capacities of 1,450 tons at eight-foot drafts and can be loaded with greater tonnages and deeper drafts when river conditions and waterways draft restrictions allow. The barge is pushed to an unloading point on the lower Mississippi River by a towboat. Typically a group of barges are assembled by smaller pushboats into a "tow" of between four and 35 barges depending on the segment of the river being transited. On small rivers with small locks, tows of four barges are common. On the Ohio River, tows of 15 barges are common. On the middle Mississippi River, between its confluence with the Ohio River and St. Louis, tows of 20 barges are common. On the lower Mississippi

River, below the Ohio River, tows of up to 35 barges are common. Obviously, larger and more powerful towboats with larger crews and fuel consumption rates push larger tows. River conditions such as high or low water, ice or fog dictate changes in tow size and speed. Locks in some waterways may impose delays due to congestion or the locking process.

Immediately after the hopper barge is loaded with coal, it is shifted away from the coal dock and tied up at a fleeting area by a shifting tug. From there the barge may be shifted again into a tow that is being assembled at a fleeting site or shifted out into the river to join a passing tow. The barge may remain at a fleeting site for hours or days, awaiting a passing tow or the assembly of a tow. At each junction point between rivers, the barge or the tow may be shifted and re-arranged into a larger or smaller tow.

When the barge is near its destination, it is delivered with other barges to the unloading dock's fleeting area. From there the barge is shifted to the unloading dock for unloading. After unloading, the barge is shifted back to a nearby fleeting site, where it begins the voyage back toward the coal-loading region. If the barge is to be

loaded with a northbound backhaul cargo, the barge may be shifted to a cleaning dock and prepared for that voyage.

Q. Please describe the terminal segment.

A. When the hopper barge is delivered to the ocean terminal, it awaits its turn to be unloaded, as described above. At TECO Terminal in Davant, Louisiana, a continuous bucket unloader that can unload the barge in less than an hour performs unloading. The unloaded coal is conveyed by conveyor belts to one of two places, either directly into a waiting ocean ship or barge that is docked at an adjacent pier or to a storage site where it will be deposited in a specific pile according to its characteristics. After storage, the coal is reclaimed by a reclaimer that rotates to dig up the coal and place it on conveyors for delivery to the oceangoing ship. Custom coal blending that creates a coal type tailored to meet operational and environmental requirements of generating units can then be accomplished by reclaiming coal from more than one pile simultaneously.

Q. Please describe the ocean transportation segment.

A. The ocean transportation segment begins when the coal is

delivered to an oceangoing ship or tug-barge unit. Their own engine propels ships while oceangoing barges are pushed or towed by oceangoing tugs. The size of these vessels may be as large as 45,000 short tons capacity. The coal is dumped into one of several holds in the vessel, and when full, the hold is covered with a large steel hatch cover to prevent water from entering the vessel. The vessel then sails down the Mississippi, sets a course for Tampa Bay, arrives at Tampa Bay, navigates the Tampa Bay channels and eventually docks at Big Bend Station. The coal is used at Tampa Electric's Big Bend and Polk Power Stations. Currently, coal is also delivered by ocean vessel to Gannon Station for use in the Gannon coal-fired units. However, the station is undergoing a repowering to natural gas-fired generation resulting in the complete elimination of coal-fired generation.

Ships typically have crews of 25 persons and speeds of about 14 or 15 knots (15 to 17 miles per hour). They typically burn heavy fuel oil as their primary fuel. Tug-barges have crews of between 7 and 10 persons, speeds of 6 to 12 knots (7 to 12 miles per hour) and burn diesel fuel. During the past decade, many large tugs and barges have been equipped with connecting linkages to permit the

tug to push the barge at all times, increasing sea speed and reliability.

Q. Tampa Electric's bid solicitation states "Tampa Electric prefers proposals for integrated waterborne transportation services, however proposals for segmented services will be considered." Do you consider this to be a reasonable provision of the bid solicitation?

A. Yes. The Tampa Electric solicitation expresses a preference for an integrated response because such a response is more efficient, simplifies accountability and avoids complex claims within each segment. The Tampa Electric solicitation does, however, also indicate that consideration will be given to proposals for the three segments described above: inland river barging, inland river-to-ocean vessel terminal services and ocean transportation. Bidders also had the option to combine its segment services with the services of one or more other bidders to create an integrated services package managed by a single supplier.

A single provider provides a multitude of attributes and efficiencies. These include:

- Priority scheduling and access to loading and

unloading facilities to ensure an uninterrupted, reliable supply of coal;

- A single responsible party, with absolute control and responsibility and no basis to transfer blame or responsibility, that can delay or even prevent remedial action to resolve long-term or short-term problems, crises, or disruptions;
- A single point of contact for contract administration that eliminates the need to maintain relationships with one or more providers in each of the three major elements of the supply chain (inland river, terminal, and ocean bulk transportation) and the associated costs of doing so;
- A single point for payment; and
- The elimination of complex claims amongst and between the supply chain providers for interference, delay, damage to key facilities, demurrage (delay of barges and ships), despatch (expediting of barges and ships), slow payment of freight or claims, expediting of late or time-critical shipments and other operational factors.

These attributes allow for cost-effective efficiencies and flexibility for Tampa Electric to manage its fuel inventory while balancing costs when all three segments

are needed to transport coal.

Q. The bid solicitation also states "terminal facilities should be accessible to Mississippi River barge traffic and capable of receiving and discharging inland river barges from domestic suppliers in Panamax sized vessels for offshore coal." What purpose is served by such a provision?

A. Tampa Electric relies primarily on domestic coal for its coal-fired units. Consequently, the receiving and discharging of inland river barges from domestic suppliers is logical. In addition, Tampa Electric imports foreign coal for blending with domestic coal and petroleum coke to meet the exacting needs of its Polk Power Station. The primary size of coal shipment from foreign locations is in Panamax-sized ships. These are ships of 60,000 to 75,000 long tons cargo capacity with full load drafts of about 42 feet. The blending process for Polk Power Station is exacting and requires delivery of domestic coals and petroleum coke to the same site as imported coal. The solicitation's requirement is consistent with Tampa Electric's needs.

By co-locating the coal and petroleum coke supplies for

Big Bend and Polk Power Stations at a single location, major efficiencies in inland barge and ocean barge despatch are achieved in the following ways:

- Different types of domestic and imported coal and petroleum coke can be delivered to a single site by inland river and international bulk carriers in sizes up to and including Panamax vessels;
- Domestic grades of coal and petroleum coke can be placed directly into the holds of U.S. flag Jones Act oceangoing ships for movement to Big Bend Station;
- Blended import and domestic coal and petroleum coke can be loaded into multiple holds of a single vessel at a single berth for onward movement to Polk Power Station; and
- Grades of domestic and imported coal and petroleum coke can be placed in a series of co-located coal storage piles for direct loading or blending.

Q. Could the coal blending process for Polk Power Station be performed at a location other than at the terminal facility?

A. I don't believe so. Logically, there are two options for the site for coal and petroleum coke blending: utilize an existing Tampa Electric coal storage site or use a

terminal services facility. Tampa Electric currently has one operating coal storage site at the Big Bend Station. Due to space and configuration limitations, it is not possible to blend the coal for Polk Power Station at the Big Bend coal storage area. Also, at Big Bend Station it is not possible to receive a Panamax vessel, which delivers the imported coal for blending. The storage capacity and flexibility of the existing terminal is much greater than the storage capacity and flexibility at Big Bend Station, and Tampa Electric will need similar capacity and flexibility at any terminal that it may utilize in the future.

Blending domestic coals, imported coals and petroleum coke at a terminal that is accessible to both domestic suppliers from the Mississippi River and foreign suppliers from the Gulf of Mexico provides a single point for all blending. It is a point along the path the domestic coal, which represents the bulk of Tampa Electric's coal use, must travel to reach Tampa Electric's generating stations, with the attendant efficiencies of scheduling, supervision, planning and storage.

Q. In addition, the bid solicitation states "proposals

should represent the entire requirements stated in the solicitation of Tampa Electric's domestic waterborne solid fuel transportation services." Do you consider this to be a reasonable criterion and, if so, why?

A. Yes, I do. Because of the decision that Tampa Electric must make regarding Big Bend Station's future fuel use under Tampa Electric's Consent Decree, there is the potential for significant declines in the volume of Tampa Electric's future demands for coal transportation and terminal services as represented in this solicitation. The previously discussed advantages of dealing with a single supplier of integrated services also apply to a single supplier for a particular segment; and in addition, planning for these potentially smaller volumes is made more complex if more than one vendor provides services for Tampa Electric's requirements. In that situation, a supplier's perspective is likely to be that the business is more uncertain. Therefore, the supplier would likely charge a premium to provide services. In addition, smaller volumes are unlikely to qualify for the efficiencies or economies of scale that result from a supplier managing greater volumes. Thus, dividing requirements among vendors is likely to result in a greater cost to Tampa Electric as well as increased

challenges to scheduling and planning fuel deliveries.

Q. Based on your knowledge of the waterborne coal and dry bulk transportation and terminal industry, do you believe that any of the above-described requirements or criteria as stated in the bid solicitation would have discouraged waterborne transportation providers from submitting creative and innovative bids for all or portions of Tampa Electric's coal transportation and terminal needs beginning in 2004?

A. No, I do not. The requirements are straightforward and pertain to volumes and tonnage, rates of loading and discharge, amounts and types of storage, scheduling, demurrage, standards of cargo hold clean up, and other customary requirements for coal transportation for utilities.

Q. Did Tampa Electric's bid solicitation fairly and adequately inform those in the waterborne coal and dry bulk transportation and terminal industry as to the needs of Tampa Electric beginning in January 2004?

A. I believe that the bid adequately informed industry participants, consistent with the limitations of Tampa

Electric's own knowledge of future coal consumption levels and the specific docks at which coal will be loaded.

Bid Evaluation Process

Q. How did you evaluate the bids that Tampa Electric received in response to its bid solicitation?

A. Tampa Electric received two waterborne transportation services bids and two rail transportation bids. DMA evaluated the two waterborne transportation bids.

Q. Please describe the bids that Tampa Electric received in response to its request for proposals for waterborne coal transportation services ("RFP")?

A. Tampa Electric received four bids--two bids for rail transportation and two bids for waterborne transportation services. The testimony of Tampa Electric witness J. T. Wehle addresses the two rail transportation bids, while my testimony addresses the two waterborne transportation bids. Of the two waterborne transportation bids, one is for inland river transportation and the other is for terminal services. Neither bid proposed to provide an integrated package of services, and only the bid for

terminal services proposed to accommodate the volume Tampa Electric will require. Tampa Electric did not receive any bids for the ocean transportation segment.

Q. Please describe how you evaluated the inland river transportation bid.

A. I took into account several factors when evaluating this bid. The inland river transportation bidder has been in Chapter 11 bankruptcy status since late January 2003. Although Tampa Electric requested financial and insurance information, the bidder never provided the information nor addressed the bankruptcy in its proposal. Therefore, my evaluation included a review of limited publicly available information that pertains to the bankruptcy. I obtained information showing that the bidder may be reorganized, broken up or liquidated. The bidder has requested to restructure or terminate contracts. I also learned that the bidder's fleet size has decreased dramatically. These factors, along with the age of the bidder's existing fleet, which raises an additional concern regarding its fleet's performance, resulted in my determination that there are unavoidable and significant risks to engaging in a contractual relationship with this bidder.

The bid for inland river transportation also offered to provide transportation for only one million tons per year, approximately 20 percent of Tampa Electric's stated maximum annual requirements. Given the bidder's failure to provide a proposal that meets Tampa Electric's full requirements or to provide financial information, in conjunction with the fact that the bidder is in Chapter 11 bankruptcy status, I recommended rejecting the inland river transportation bid.

Q. Were you able to gain any market insight based upon this one bid?

A. Yes. Since the bidder is a large company, and the volumes it proposed to serve are substantial, I considered it worthwhile to continue analyzing the terms of the bid. While there may be differences from a true, valid market bid due to the bidder's financial status and contracted fleet size, I believe that the bid still serves as a practical market indicator. Therefore, I evaluated the bid to determine the reasonableness of its rates for the one million tons per year that it offered to transport.

I compared the bid to the current rates paid by Tampa

Electric for inland river transportation and to rates that have been developed by DMA using proprietary models. My evaluation of the bid, the models, and my recommendations are described in greater detail below.

Q. Please describe the bid Tampa Electric received for terminal services.

A. As I indicated, the bid for terminal services proposed to accommodate the volume Tampa Electric will require. DMA examined the bid with respect to its terms, conditions, facility features, performance, conformance and capacity to meet Tampa Electric's requirements.

In general, the terminal segment has very high fixed costs because the cost to build and maintain a terminal is substantial, as is the cost of maintaining staff to operate a facility 365 days per year, 24 hours per day. The only major variable costs are electricity to operate the systems and operating and maintenance costs for the machinery and equipment.

In a weakened terminal market like today's, I expect rates to be restrained. This was reflected in the terminal bid received. I took the terms and conditions

of the bid and compared them to the current terms and conditions Tampa Electric pays to provide a complete market perspective on terminal service rates and market conditions. As a result of my analysis, I concluded that the rates in the terminal bid are competitive and should form the basis for my recommended rates. Because Tampa Electric's annual volumes may vary several-fold over the term of the contract, the ratio of coal that is directly transferred from a river barge to an oceangoing vessel versus coal that is stored prior to ocean transportation will vary. Therefore, I adjusted the base rate for the full range of annual tonnages. The rate for each throughput level, my detailed evaluation of the bid and my recommendations are described in greater detail in my final report.

Market Analyses

Q. In addition to evaluating the bid responses, what methodology did you use to establish the appropriate market rates for waterborne coal transportation services?

A. I relied on two customized, proprietary market models for this purpose, as well as various supporting analyses and information. One model evaluated the costs and market for the inland river barge movements from various coal

loading points. The other model evaluated ocean coal transportation between loading points on the Gulf of Mexico and Tampa Bay to establish market rates, while considering the freight rates for available equipment during the next five years.

Q. Please describe your model used to evaluate the market for the inland river barge movements from various coal loading points.

A. Notwithstanding the limited responses to Tampa Electric's RFP, my methodology recognized that the inland barge transportation market is a large and multi-faceted one. Several major coal carriers operate nearly 6,000 open hopper barges and have created a market with spot and period market dynamics. These dynamics have shifted in recent years as Ohio River Valley utilities have bought larger amounts of transportation under more flexible terms. These shorter contracts create more frequent contract mobilization and de-mobilization costs that are challenging for smaller carriers with limited options and traffic patterns. In contrast, larger carriers are better able to mobilize fleets of barges for new contracts, encouraging consolidation that has left fewer, larger carriers competing in the market.

While not all aspects of rates, utilization, contract coverage and costs are transparent, my methodology estimated the costs of every movement of coal from barge loading origin to barge unloading destination with reasonable accuracy and meaning. Since these rates were consistent and similar to prevailing rates and barge earnings, there was a basis to conclude that these costs reflect market rates.

Utilizing this information, I developed market rates based upon each origin point that Tampa Electric expects to use for domestic purchases over the contract period. I compared the bidder's rates to the market rates for verification that they are reflective of the market for inland river transportation. I concluded that indeed they are similar to market rates.

Q. How did you establish appropriate market rates for inland river barge transportation of coal?

A. To determine rates for inland river barge transportation of coal to Davant, Louisiana from 25 locations on the Ohio, Green, Tennessee and upper Mississippi rivers, I utilized my model, which captures the physical requirements for moving each barge load of coal, with

operating parameters typical of the barge industry. The model tracks the time required for each activity in each barge's voyage, the resources employed and the cost for each activity and resource. The cost components of a voyage include variable voyage costs (*i.e.*, making and breaking tows, fleeting and shifting); fixed costs (*i.e.*, barge hire and towboat capital cost recovery); and fuel costs. Variable barge voyage costs are driven by the number, type and duration of activities performed by or for a barge along its route; how many times it is moved for loading or to make or break a tow; and the amount of time it spends waiting for a tow at the load dock, integration points along the way and discharge dock. Other non-voyage variable costs are determined by the number of days required for a barge to complete a voyage, the number of towboat days it employs, the size of the towboats and the respective daily cash operating costs for towboats and barges (*i.e.*, costs for towboat crews, insurance, stores and supplies, maintenance and repair, general and administration, and barge maintenance and repair). Towboat costs are straightforward and obtainable from U.S. Army Corps of Engineers guidelines while barge hire costs are market-driven. To determine the appropriate barge hire, I analyzed several years of financial data as well as freight rate indicators,

employing proprietary models developed by DMA. The model assumes a daily barge hire rate of [redacted] 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

vary under a number of scenarios and determined that Tampa Electric must be able to benefit from the efficiencies of the inland system. If its barges were to move only in dedicated tows, rates would be unreasonably high, especially if tonnages decrease in the latter part of the contract period. I concluded that the appropriate scenario is the "partially dedicated tow", in which Tampa Electric-specific barges move in dedicated tows as long as justifiable by coal volumes. When volumes drop to where costs and operating profiles are misaligned with those of the larger river system, the model assumes that Tampa Electric-specific barges will join passing tows and incur costs in accordance with those tows. For each loading dock, the model generates subtotals of fixed, variable and fuel costs and total cost. The total cost is divided by the number of tons that can be loaded in the barge at each dock to determine a rate in dollars per ton.

My recommended inland river transportation market rates are very close to those of the bid and are based on an analysis of each movement from origin to destination at rates that will provide for reasonable returns expected by a supplier. There are some differences between the recommended rates and the bid, but these can be

attributed to differences between the bidder's strategy and models and the model that DMA employed. As I mentioned above, the bidder is in Chapter 11 bankruptcy status, and their open hopper business is in a state of apparent rapid contraction in terms of fleet size and contracts. The company may also be broken up or liquidated due to its financial condition. Therefore, the forces and considerations behind this bidder's proposal may reflect factors and forces that are not consistent with an ongoing business strategy, so the proposal cannot on its own determine the market for these services.

Q. What are your recommended inland river transportation rates?

A. The market inland river transportation rates that I recommended comprise a fixed and a variable component. The fixed component covers the capital charges that assure appropriate returns on the debt and equity portions of capital investment. The variable component includes charges to cover all other costs, including charges for shifting barges to and from loading and discharge docks, fleeting, cleaning, maintenance and repairs, towboat crewing, general and administrative expenses and fuel. The fuel charge is described

separately, and it is based on the estimated cost of fuel to transport coal. The allocation of the rate into fixed and variable components is appropriate because it places the risk and responsibility on the operator for the variable costs of which it is aware when the contract is arranged or that it has some ability to control during the contract period. The fixed component is the portion of the rate that enables the operator to earn a profit on the equipment, based on its ability to use barges and towboats efficiently. The variable component consists primarily of costs that are under the control of the operator and which can be expected to change during the duration of the contract. Other variable costs are incurred by the use of outside service providers, for example, costs for shifting or fleeting. These charges tend to follow macroeconomic trends; hence they are adjusted by the price indices.

Q. How did you establish appropriate market rates for waterborne coal transportation terminal services?

A. I did not create or rely upon a market model of the terminal segment because the company received a bona fide bid for its full requirements of terminal services, and the rates quoted can be viewed as representing the market

for those services. I determined that the bidder possesses the facilities, capacity, and financial strength to fully meet Tampa Electric's requirements, and I regarded its bid as being valid and meaningful. The rates were also generally consistent with prior rates tendered by the bidder and market indications gleaned by DMA for bulk terminal services. Consequently, its bid can be deemed to reasonably represent the market. Therefore, the rate structure of the terminal bid was used with no modifications, as outlined later in my testimony.

Q. Please describe your second model and how you established appropriate market rates for the ocean segment of the waterborne coal transportation services.

A. A critical factor in establishing market rates for the ocean segment is a consideration of the opportunities to transport other domestic dry bulk and U.S. export dry bulk preference cargoes. As I explained in my direct testimony, preference trades are U.S. government-impelled grain export programs that donate grain, expedite grain donations or finance grain purchases to developing and less-developed nations. These types of hauls tend to be more lucrative than coal hauls. It is imperative that

the earnings potential for ocean shipping vessels be considered. This represents an opportunity cost of deciding to serve Tampa Electric's needs. In fact, I believe that because these alternative opportunities are lucrative and in high demand, Tampa Electric did not receive a bid to provide ocean transportation. Therefore, my methodology considered market pricing for the ocean transportation system as the rates that vendors would require to transport all of the 5.5 million tons that Tampa Electric established as its maximum annual volume, taking into account the domestic and foreign-trading marketplaces in which these vessels operate and the amounts that they are capable of earning in those trades.

I considered the earnings potential for ocean shipping vessels. I defined earnings as the net funds that would be expected or required to be earned by each vessel after deducting voyage expenses for port, cargo handling, canal, and fuel expenses. The net earnings (termed "time charter equivalent" earnings) of vessels allowed me to calculate the total amounts that vessels would require to carry coal from the existing terminal in Davant, Louisiana to Tampa Electric's Big Bend Station. This provided a context in which to view and understand the

maximum ocean rate.

A maximum time charter rate was defined by the observed patterns of earnings of vessels in the preference trades. I analyzed more than 135 preference voyages of U.S. flag Jones Act vessels between the years 2000 and 2003 to estimate time charter earnings for the full range of differently sized vessels. The pattern of time charter earnings was used to establish a trend curve by which each size vessel could have a preference time charter rate assigned to it.

Next, I established the market rate of the core fleet of TECO Transport barges currently used to serve Tampa Electric's needs. It was defined as the average of the minimum and maximum time charter rates for those vessels. This rate represents the average rate needed to move the maximum volume of coal. The large, efficient barges currently dedicated to Tampa Electric's ocean transportation needs keep rates low in comparison to the spot rates that would prevail if Tampa Electric were forced to go to the tight ocean transportation marketplace, which would result in the use of smaller vessels, if adequate capacity could be found.

DMA examined two key marketplaces for U.S. flag Jones Act dry bulk vessels--the domestic dry bulk market and the government-impelled dry cargo market. First, to assess the general state of the dry bulk market, DMA evaluated the transportation demand in 2001 for all dry bulk commodities moving along the coasts. Because all of this business is unregulated and privately negotiated, no public disclosures of rates or earnings are available. However, using total tonnage and distances, and the role of ships versus barges, the demand for barges was found to be approximately 806,000 capacity tons. The fleet of ships and barges over 10,000 tons cargo capacity, which is the size that are primarily engaged in these trades and are most competitive, totaled about 880,000 capacity tons, with only four barges that total 80,000 capacity tons idled and one large barge with cargo capacity that exceeds 35,000 tons without access to a push-linked tug. Thus, the market is essentially in balance, while smaller barges are providing some additional minimal capacity at higher rates. Consequently, I was able to conclude that barges certified for ocean service and married to appropriately equipped tugs are generally busy in the domestic market.

Second, DMA considered the U.S. government preference

cargo trades that reserve export shipments donated or granted by governments for transportation by U.S. flag ships. DMA analyzed more than 135 individual voyages by ships and barges to estimate their net time charter earnings to gain insight into the earnings of specific vessels. Based on the overall trend, a preference cargo earnings rate was assigned to each ship and tug-barge unit presently serving Tampa Electric's needs, as well as to a range of key vessels controlled by other carriers.

A minimum time charter rate was established by considering the embedded costs and values of the vessels, using depreciated replacement costs based upon remaining lives and related reconstruction costs. The reconstruction cost estimates were based on known recent life extensions and capacity expansion programs costs. These capital costs were combined with ship operating costs for crew, stores and supplies, insurance, repairs and maintenance and administration and management to determine the minimum required time charter rate.

The recommended rate for ocean shipping includes a fixed component and a variable component. The fixed component recovers the capital cost of establishing and maintaining a fleet of vessels dedicated to serving Tampa Electric's

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 [redacted] 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

petroleum coke from refineries in east Texas. This was necessary because Tampa Electric contracts for a significant portion of its petroleum coke needs from this region. DMA selected the current core fleet vessel that has a time charter rate closest to the average rate of the core fleet vessels because it is representative of the market price for the size of the vessel used. I then calculated the required rate for that vessel to transport the product from Texas to Big Bend Station.

Q. What conclusion did you reach regarding the ocean segment?

A. As a result of my analysis, I concluded that no existing fleet or combination of Jones Act dry bulk barges or ships other than the TECO Transport fleet is capable of competitively serving Tampa Electric's needs from a capacity and price standpoint. All of the other fleets and combinations of vessels are committed to hauling other products in the dry bulk market and the government-impelled preference trades. Therefore, my analysis has determined that the appropriate market rates for the ocean segment are based upon the continued use of the TECO Transport fleet and reflect the capital, operating and opportunity costs of those vessels.

Q. How should the various components of the contract charges be escalated during the contract period?

A. I recommended that the inland segment and the ocean segment have similar contract price escalation methods. Fixed charges must be included to assure the desired level of capacity, plus the incremental rate per ton to actually move cargo. An appropriate portion of the incremental charge is for fuel, which should be indexed to the Platts Gulf Coast Waterborne No. 2 Oil - Low index. The balance of the incremental portion should be linked to the Consumer Price Index and Producer Price Index. The rates do not include escalation of the fixed component.

Q. Please summarize the recommendations you made to Tampa Electric regarding the fulfillment of its waterborne coal transportation services needs as a result of your evaluation of the bid responses and your market simulations and analyses.

A. Regarding the bids, I considered the river segment bid to be non-conforming. Given the bidder's failure to provide a proposal that meets Tampa Electric's full requirements or to provide financial information, in conjunction with

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 [redacted] per ton. This is [redacted] 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 [redacted] 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 [redacted] per ton, which includes a [redacted] fleeting charge. The market rate for ocean transportation of Tampa Electric's maximum annual requirements of 5.5 million tons is [redacted] per ton. These rates total to the [redacted] 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

the specific CPI and PPI indices used to escalate the variable components. In addition, in December 2003, I discovered offsetting calculation errors in the ocean transportation model. The errors were corrected and I provided Tampa Electric with the revised ocean segment rate information along with revisions to my original report. The revised are pages 62 through 66 and 68. All revised pages are provided as Document No. 2 of my exhibit. The errors raised the total ocean market rate by $0.03 per ton. The amounts of the fuel, fixed and variable rate components were also revised, with resulting greater percentages for the fixed and fuel components and a reduced percentage for the variable component. The errors also raised the separate market rate that I calculated for the ocean transportation of petroleum coke from refineries in east Texas by $0.02 per ton.

Q. Please describe the calculation errors that were corrected.

A. There were a few items that, while properly reflected in the assumptions and descriptions in my report, were incorrectly modeled. These items included the calculation of the average timecharter rate, the tons of

coal typically carried by the fleet that serves Tampa Electric, sea speeds and free unloading time at Big Bend Station and the associated delay time assumption. The use of the median vessel as the basis of the rate for shipments from east Texas was also incorrectly modeled.

Q. Did the methodologies you employed in determining the ocean segment market rate change?

A. No, they did not.

Q. Please describe your final report.

A. I have summarized the results of my evaluation, analyses and recommendations above. My final report is the document that I provided to Tampa Electric, which is attached as Document No. 1 of my exhibit. The report provides the results of my analysis, detailed information about my analyses and recommendations and descriptions of my methodologies and supporting background information. In addition, as previously stated, Document No. 2 of my exhibit contains the pages of my report that were revised in December 2003.

Transportation Benchmark

Q. In your opinion, should the Commission continue to rely upon an averaging of rail rates paid by Florida municipal utilities as a form of benchmark or market surrogate to assess the reasonableness of the costs that Tampa Electric pays for coal transportation and terminal services?

A. Yes. I agree that the rail rates utilized and the calculation established by the Commission to evaluate Tampa Electric's waterborne transportation costs serve as a valid benchmark and should be relied upon for that purpose, as has been done by Tampa Electric in prior years. Rail transportation is the only competitive alternative to waterborne transportation for Tampa Electric to transport the volume of coal it requires. The methodology in place utilizes rail rates as the company's and the Commission's best available approximation of the next best alternative. I am not aware of a better alternative for comparison for the purpose of evaluating Tampa Electric's actual waterborne transportation costs.

Q. Does this complete your testimony?

A. Yes, it does.

EXHIBIT TO THE TESTIMONY OF

BRENT DIBNER

DOCUMENT NO. 1

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

PAGES 53 THROUGH 130 ARE REDACTED FOR CONFIDENTIALITY PURPOSES

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

PAGES 132 THROUGH 138 ARE REDACTED FOR CONFIDENTIALITY PURPOSES