

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

REBUTTAL TESTIMONY AND EXHIBIT  
OF  
PAULA GULETSKY  
ON BEHALF OF  
TAMPA ELECTRIC COMPANY

REDACTED VERSION

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1                   **BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

2                                   **PREPARED REBUTTAL TESTIMONY**

3   **OF**

4   **PAULA GULETSKY**

5   **ON BEHALF OF**

6   **TAMPA ELECTRIC COMPANY**

7  
8   **Q.**   Please state your name and business address.

9  
10   **A.**   My name is Paula Guletsky and my business address is 55  
11       East Monroe Street, Chicago Illinois.

12  
13   **Q.**   By whom are you employed and in what capacity?

14  
15   **A.**   I am employed by Sargent & Lundy, L.L.C. ("S&L") as a  
16       Senior Project Manager. S&L is an engineering design and  
17       consulting firm that has exclusively served the power  
18       industry in development, design, construction, and  
19       operations of power generation and distribution  
20       facilities for over 111 years.

21  
22   **Q.**   Please describe your educational background and business  
23       experience.

24  
25   **A.**   I received a Bachelor of Science degree in Chemical

1 Engineering from the University of Kentucky in 1981. I  
2 have served the power industry throughout my entire  
3 career. First, I worked for ABB Environmental Systems  
4 from 1981 to 1991. During my tenure with ABB I served as  
5 a conceptual design engineer, a detail design engineer,  
6 and an engineering manager for coal fired utility  
7 environmental projects. I joined S&L, my present  
8 employer, in 1991 as a project engineer. I have served  
9 as a project manager for 10 years. My experience spans  
10 from project development studies through conceptual  
11 design, detail design, construction, startup, operations,  
12 plant betterment and retrofit. I am a registered engineer  
13 in the state of Wisconsin.

14  
15 **Q.** What is the purpose of your testimony?  
16

17 **A.** The purpose of my testimony is to provide a detailed  
18 description of the independent cost estimates performed  
19 by S&L in August and September 2003 for retrofit at Tampa  
20 Electric's Big Bend and Polk plants to allow for rail  
21 delivery of coal in addition to the existing barge/truck  
22 delivery system. I also address both the numerous  
23 inaccuracies and certain outrageous allegations made by  
24 CSXT's witnesses, Dr. Robert Sansom and Mr. John  
25 Stamberg, regarding the S&L report and their approach to

1 a similar study.

2

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

5

6 A. Yes. Exhibit No. \_\_\_ (PMG - 1) consists of two documents.  
7 Document No. 1 is the engagement letter between Tampa  
8 Electric and S&L for the services to be performed.  
9 Document No. 2 is a project timeline showing specific  
10 tasks and time requirements necessary to retrofit Big  
11 Bend Station so that it may receive coal by rail.

12

13 Q. Please summarize your testimony.

14

15 A. S&L was hired to provide an independent technology  
16 screening analysis including cost estimates to retrofit  
17 the Big Bend and Polk Power stations to allow for rail  
18 delivery of coal. S&L prepared its report in accordance  
19 with S&L's strict engineering standards. Despite the  
20 outlandish allegations by CSXT's witnesses, S&L would  
21 never consider taking any short cuts or making reckless  
22 proposals that would damage its reputation as an industry  
23 leader for professional services. S&L's evaluation of  
24 CSXT's proposal was that while the concept appeared  
25 reasonable, the cost estimates used by CSXT were grossly

1 understated. Similarly, Mr. Stamberg's review and  
2 adjustments to CSXT's proposal omitted and failed to  
3 consider basic project requirements that resulted in  
4 insufficient cost estimates and flawed conclusions. After  
5 reviewing Dr. Sansom's assertions and Mr. Stamberg's  
6 proposals, S&L re-affirms its original estimates, and  
7 dismisses the conclusions reached by both Dr. Sansom and  
8 Mr. Stamberg because they lack the understanding of what  
9 the true costs are for the project.

10  
11 **S&L ENGAGEMENT AND WORK PERFORMED**

12 **Q.** Why did Tampa Electric hire S&L in August 2003?

13  
14 **A.** As described in the direct testimony of Tampa Electric  
15 witness Joann Wehle, S&L was commissioned to review the  
16 CSXT proposals and to provide an independent technology  
17 screening analysis including cost estimates to retrofit  
18 the Big Bend and Polk Power stations to allow for rail  
19 delivery of coal in addition to the existing barge/truck  
20 delivery plan. These cost estimates were to be used by  
21 Tampa Electric to evaluate the overall feasibility of the  
22 rail delivery approach to other options for coal  
23 transportation. S&L was asked to perform a technology  
24 screening analysis. Document No. 1 of my exhibit includes  
25 the engagement letter signed by Tampa Electric and S&L.

1 Q. What specific professional experience do you have that  
2 makes you qualified for this type of engagement?

3

4 A. With the exception of two gas turbine projects, my entire  
5 career has been focused on performing screening analysis  
6 and cost estimates, conceptual design and cost estimates,  
7 detailed design and project management of retrofit  
8 capital projects for coal fired utilities and independent  
9 power producers. All of these assignments have included  
10 material handling systems to some degree.

11

12 I have been a project manager at S&L for ten years. As  
13 such, I have demonstrated repeatedly to utility clients  
14 my expertise at assessing a retrofit need, assembling the  
15 appropriate staff within S&L to support the task, and  
16 executing the task on time and to a high standard of  
17 care.

18

19 Q. How did you staff this project?

20

21 A. For this project, I assembled the following key experts  
22 to perform the work:

23

24

25

Sam Madan - Material Handling Specialist and Process  
Owner who has 38 years experience in material  
handling industry.

1 George Bowater - Cost Estimating Specialist who has  
2 32 years experience in the power industry.

3 Bock Yee - Project Manager and Licensed Engineer in  
4 the State of Florida who has 31 years experience in  
5 the power industry

6  
7 The tasks performed were well within our usual and  
8 customary work.

9  
10 **PROJECT PLANNING PROCESS**

11 Q. Please describe the process typically used in planning a  
12 major capital project such as the one proposed by CSXT  
13 for building rail delivery facilities.

14  
15 A. Typically, there is a three-step process used in planning  
16 a major capital project. Technology screening is the  
17 first step. A technology screening, or feasibility study,  
18 serves to identify concepts worthy of additional  
19 consideration. A concept is proposed, a fatal flaw  
20 analysis is performed, a scope of work is identified and  
21 an order of magnitude cost estimate is prepared based  
22 upon the concept and scope of work. A typical technology  
23 screening will take anywhere from one week to three  
24 months depending on the number and complexity of the  
25 concepts analyzed. An estimate accuracy of 15 to 30

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percent is provided.

If a concept is deemed feasible from a technology and cost standpoint, then the next step in planning is the conceptual, or preliminary design. During this phase of project development, engineering studies would be performed to further develop the scope of work and project schedule. Typical engineering studies would include site survey, soil boring, electrical load analysis, inspection of existing structures, tie-in's to existing facilities, and optimization studies. During the conceptual design phase, engineering would begin. Engineering tasks would include: modeling of the system with computer assisted design (CAD) software, preparing the general arrangement drawings, developing heat and mass balances, developing design criteria for the project, developing the engineering and construction schedule, and developing the piping and instrumentation diagrams. Vendor quotations would be solicited for major engineered equipment components during this phase of work. The cost estimate prepared in the conceptual design phase of a project is typically used for establishing capital budgets. An estimate accuracy of 10 to 20 percent is provided. The development of a conceptual design typically requires six months to a year



1 depending on the complexity of the system. Tasks  
2 indicative of the conceptual design stage are what are  
3 alluded to throughout Dr. Sansom and Mr. Stamberg's  
4 testimony.

5  
6 The final stage of project development is detailed design  
7 and the development of a definitive cost estimate. The  
8 estimates prepared in conjunction with this stage of  
9 project development are based upon having 20 to 50  
10 percent of detailed engineering complete and have an  
11 accuracy of 10 to 15 percent.

12  
13 **S&L WORK PLAN AND ESTIMATING STANDARDS**

14 **Q.** Please describe the work plan you followed for this  
15 engagement.

16  
17 **A.** S&L's approach used for this project consisted of four  
18 basic steps: (1) a scope of work was developed based upon  
19 the concept as revised to incorporate errors and  
20 omissions; (2) line items were developed in the cost  
21 estimate for every system, component or commodity needed  
22 for the project based upon the scope of work; (3) for  
23 each line item, a basis was developed to indicate the  
24 quality, size, capacity or materials; and (4) material  
25 and erection costs were prepared for each line item.

1 Q. Are the estimating techniques and methods used by S&L  
2 described above an appropriate standard of care for the  
3 type of work performed?  
4

5 A. Yes. S&L is a highly respected worldwide leader in  
6 professional services for the electric power industry  
7 delivering engineering, construction management, and  
8 consulting services. The general engineering guidelines  
9 used in our cost estimating process are derived from the  
10 AACE International Estimating Committee standards. The  
11 cost estimating approach used for the Tampa Electric  
12 project is consistent with the methodology used for  
13 estimates prepared for hundreds of our utility clients,  
14 including Florida Power & Light, Progress Energy of  
15 Florida.  
16

17 Q. Does S&L have any additional corporate standards of care  
18 that are followed?  
19

20 A. Yes. S&L has corporate standards that must be followed,  
21 which help the company maintain its reputation as one of  
22 the global leaders in the field. The work performed by  
23 engineers is measured against these standards to ensure  
24 the services performed meet not only general engineering  
25 guidelines but the higher company standards.

1 **S&L'S EVALUATION OF CSXT PROPOSAL**

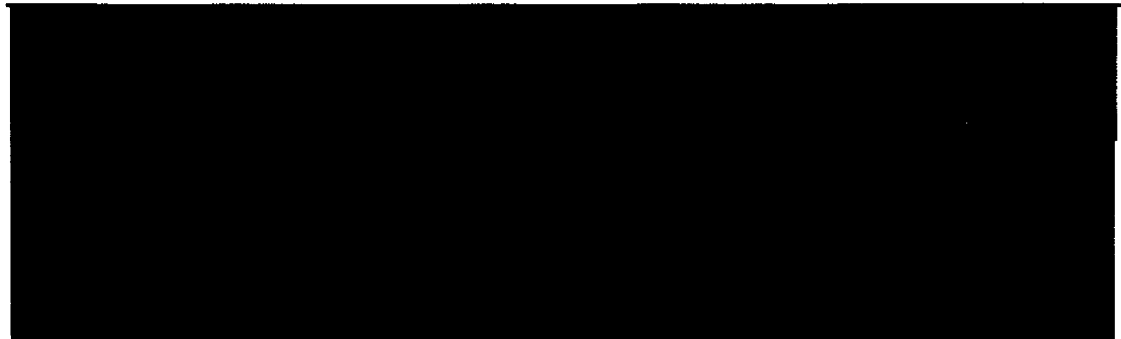
2 Q. Did you consider the retrofit concept proposed by CSXT to  
3 be workable from an engineering standpoint?

4  
5 A. With the changes described in the S&L report to  
6 incorporate errors and omissions by CSXT, the concept  
7 proposed by CSXT may be workable. However, major  
8 environmental impacts associated with rail transportation  
9 - noise, traffic delays, and other inconveniences are not  
10 addressed. These social impacts cannot be readily  
11 quantified because of the variability of human response.  
12 Nevertheless these obstacles are not addressed but could  
13 impact the ability to get the concept accepted by the  
14 local community and agencies.

15  
16 Q. What cost conclusions did you reach as a result of your  
17 screening analysis?

18  
19 A. The cost estimate prepared and proposed by CSXT is  
20 extremely low in all cases. The independent cost  
21 estimates prepared by S&L indicate that the installed  
22 cost of the concept, including all necessary balance of  
23 plant, adjustments and modifications, is four to five  
24 times that proposed by CSXT. S&L's as well as CSXT's  
25 capital cost estimates are summarized in the table below:

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S&L Capital	CSXT Capital
	

**Q.** How could it be that your costs estimates and CSXT's costs estimates are so far apart?

**A.** I do not know how CSXT developed its cost estimates. However, S&L followed the same steps and approach, described above, that it uses for all of its utility screening projects and based on that approach arrived at the estimates it believes to be appropriate for the level of work performed.

**Q.** Dr. Sansom states that the S&L study was "designed to enable TECO to avoid considering CSXT's rail transportation bids rather than to provide an objective analysis of the feasibility of CSXT's proposals." Is this true?

**A.** Absolutely not. Tampa Electric hired S&L to perform an independent and objective assessment of the concept

1 proposed by CSXT. That is what we did.

2 **Q.** Did this engagement require a site visit to Big Bend and  
3 Polk Power stations?

4  
5 **A.** After reviewing the concept and plan and after having  
6 discussions with Tampa Electric personnel, we felt that a  
7 site visit would not be required. We have extensive  
8 experience in the design of material handling systems  
9 specifically as they fit into a power plant system. We  
10 have extensive experience in retrofit of major systems  
11 into existing and operating facilities. We understood the  
12 concept presented to the level necessary to perform our  
13 work task. A visit to the site was neither required nor  
14 the best use of the time available to perform the work.

15  
16 **Q.** Do you agree with Mr. Stamberg, the consultant hired by  
17 CSXT, that the infrastructure improvements and estimated  
18 costs of these modifications were reasonable?

19  
20 **A.** No, I do not. The cost breakdown provided with the CSXT  
21 proposal did not provide enough detail of the  
22 infrastructure assumptions. It did not appear from the  
23 costs provided that adequate infrastructure was included  
24 in the CSXT estimate.

25

1 Further, the descriptions and calculations provided by  
2 Mr. Stamberg in his testimony confirm that inadequate  
3 utility grade new equipment and infrastructure costs were  
4 used. Although not all of the cost differences are due  
5 to infrastructure, some examples of errors and omissions  
6 in CSXT's estimate include:

- 7 1. Lack of HVAC to ventilate the unloading pit and  
8 transfer houses.
- 9 2. No extension to the fire protection loop for the new  
10 system.
- 11 3. Lack of temporary coffer dam and dewatering for pit  
12 construction
- 13 4. Non-use of enclosed conveyors when transporting coal  
14 over an open water canal.
- 15 5. No inclusion of electrical hardware and commodities  
16 required for interface with the existing facility.
- 17 6. Inadequate steel and foundation allowance for design  
18 to meet the requirements of Florida's building code.

19  
20 **Q.** Did S&L use engineering drawings and design  
21 specifications in performing their analysis?

22  
23 **A.** Yes. S&L was provided with adequate plant reference  
24 drawings and data to perform the work. Additionally,  
25 S&L's efforts were supported by an on-site team of

1 engineers at Tampa Electric. Many telephone conferences  
2 and individual telephone calls were held to exchange  
3 information. Documents were interchanged electronically  
4 as evidenced by the correspondence included in the  
5 appendix to S&L's report.  
6

7 **Q.** Did this engagement require you to discuss with CSXT the  
8 cost estimates in their bid?  
9

10 **A.** No. S&L did not require discussions with CSXT because we  
11 understood the concept they proposed. Discussions with  
12 them regarding their cost estimates would not have been  
13 appropriate since we were hired to provide an independent  
14 assessment of costs based upon S&L's knowledge and  
15 experience.  
16

17 **Sansom's and Stamberg's Testimony**

18 **Q.** Please identify any deficiencies you observed in Mr.  
19 Stamberg's estimates.  
20

21 **A.** Examples of deficiencies to CSXT's and Mr. Stamberg's  
22 estimate include, but are not limited to, the following  
23 errors and omissions:

- 24 1. The conveyor prices included are not consistent  
25 with utility grade system component costs.

- 1           2.    The rapid discharge pit size, method used to  
2           determine the cost estimate for the coffer dam  
3           needed, and pit erection costs are understated  
4           based on design requirements.
- 5           3.    Mr. Stamberg states that HVAC included in S&L's  
6           report is unnecessary. The HVAC systems listed are  
7           ventilation systems for the underground pit and  
8           enclosed transfer house. Ventilation of these areas  
9           is a National Fire Protection Association (NFPA)  
10          guideline.
- 11          4.    Upgrades to the plant electrical supply and  
12          distribution systems are not addressed. It is  
13          unlikely that the existing facility can accommodate  
14          the addition of over 60 motors without the purchase  
15          of new motor control centers, an additional  
16          electrical building and a transformer.
- 17          5.    Other required balances of plant upgrades are not  
18          addressed. These include upgrades to the plant  
19          control system to monitor operations of the new  
20          equipment, extension of the fire protection loop,  
21          storm water and coal runoff grading upgrades, and  
22          relocation and interconnect with plant services.
- 23          6.    Project indirect costs such as engineering,  
24          procurement, construction management, insurance,  
25          and permit fees are not identified.



1 Q. Were errors and omissions caused by Mr. Stamberg's  
2 limited access to Big Bend?  
3

4 A. No. Mr. Stamberg's errors and omissions are not the  
5 result of his not visiting the Big Bend site. Any  
6 experienced system design firm would understand and  
7 account for these requirements based on the plan drawing  
8 provided by Tampa Electric and the known physical  
9 location of the plant.  
10

11 Q. On page 11 of Mr. Stamberg's testimony he states that  
12 only four adjustments are required to CSXT's 2 to 5.5  
13 million ton proposal to correct the deficiencies. Do you  
14 agree with that assessment?  
15

16 A. No. While Mr. Stamberg's adjustments do increase the  
17 amount of infrastructure improvements needed from the  
18 original CSXT proposal, they do not address a complete  
19 design and cost estimate. Additionally, the adjustments  
20 that were proposed by Mr. Stamberg have significant flaws  
21 and omissions including:

22 1. The long conveyor installed cost was increased from  
23 the CSXT proposed \$3.1 million to \$4.2 million,  
24 which represents an increase of over 30 percent.  
25 However, the cost is still too low because the

1 equipment proposed is for light duty service and  
2 inappropriate for use in utility service.  
3 2. The rapid discharge pit size is too small and  
4 shallow for the equipment. Resultantly, the coffer  
5 dam size and depth is also lacking.  
6 3. The added dust suppression equipment costs are too  
7 low. The S&L estimate is based upon actual quotes  
8 for similar service on other projects currently in  
9 the design and procurement phase. The basis of Mr.  
10 Stamberg's estimate is unknown.

11  
12 **Q.** Is S&L familiar with the conveyor manufacturers Mr.  
13 Stamberg references on pages 18 and 19 of his testimony?

14  
15 **A.** FMC and Continental Conveyors are well known conveyor  
16 suppliers, however, S&L is not familiar with Cubic  
17 Storage Systems, Inc. as a system supplier for the  
18 utility market. S&L does not consider a quotation from  
19 this entity to be a credible data point.

20  
21 **Q.** Mr. Stamberg provides budgetary quotes from two known  
22 conveyor manufactures, plus Cubic Storage Systems, Inc.,  
23 as the primary basis for his estimates on the long  
24 conveyors. Do you consider his quotes to be accurate?

25

1 **A.** No. None of the budgetary prices developed by the  
2 conveyor manufacturers are firm prices based on materials  
3 and equipment suitable for the conditions at the site.  
4 For the budgetary price obtained from FMC by Mr.  
5 Stamberg, the following disclaimer appears in large  
6 letters:

7

8 **Pricing provided as Budgetary only. Exact**  
9 **pricing will require further scope**  
10 **development, specification review and site**  
11 **analysis. Final pricing to occur prior to**  
12 **order acceptance.**

13

14 When asked for budget pricing without the benefit of full  
15 specifications, vendors can only respond by quoting  
16 unrealistically low prices without regard to actual site  
17 conditions and the design standards demanded by the  
18 application. The information provided by the vendors with  
19 their quotes is very limited. Therefore it is impossible  
20 to determine how many other site-specific design  
21 requirements are not included in their prices.

22

23 **Q.** Do you have an example of how the quote provided by FMC  
24 could change if more complete design specifications were  
25 provided?

1   **A.**   Yes. Upon review of the quote provided by FMC to Mr.  
2           Stamberg, it appears that the equipment quote is for a  
3           light duty conveyor that does not meet the standard of  
4           care for a critical utility component. More information  
5           on design specifications would reveal:

6           1.   The conveyor speed of 750 revolutions per minute  
7                (rpm) is higher than the industry recommended  
8                practice of 600 rpm. The increased speed of the  
9                conveyor contributes to higher dusting, coal  
10              spillage and undue wear on the component. To obtain  
11              the same throughput of the conveyor at a slower  
12              speed, a 60 inch conveyor is required rather than  
13              the 54 inch conveyor quoted.

14          2.   Single coat enamel painting is insufficient due to  
15              corrosion. A minimum of two, but usually three,  
16              coat painting system should be specified for utility  
17              grade service. The Big Bend coal field is bordered  
18              on three sides by the salt waters of Tampa Bay which  
19              adds to the corrosive effects of the semi-tropical  
20              weather that is typical of Central Florida.

21          3.   C series idlers are too light duty for this  
22              application. D-series idlers are recommended.

23          4.   A design based on a dry environment is not  
24              appropriate. The conveyors are not housed in a dry  
25              environment. They are to be located outside, in

1 close proximity to Tampa Bay. All components of the  
2 system must be designed for outdoor service.  
3 Additionally, all electrical components must be  
4 designed for either waterproof/dustproof or  
5 explosion proof service.

6 5. The idler spacing of five feet increases the loading  
7 on the idlers and the sag between the idlers which  
8 contributes to dusting along the conveyer. Industry  
9 experts that set conveyor guidelines, Conveyor  
10 Equipment Manufacturer Association ("CEMA"),  
11 recommend a maximum of four feet idler spacing.

12  
13 Besides the incorrect design assumptions, FMC's quote  
14 excludes key components including the foundation design  
15 and supply, the head discharge boxes, and electrical  
16 requirements.

17  
18 After all of these errors and omissions are addressed,  
19 the quote received from FMC is more reflective of the  
20 quote provided by S&L. To further validate the adequacy  
21 of the database used in the cost estimate S&L provided,  
22 we benchmarked the bid coal conveyor costs provided to us  
23 by FMC for a new coal plant service. The bid received  
24 from FMC, that was prepared to an S&L specification for  
25 standard utility service, was higher than our database

1 estimate but within the error band. Specifically, the  
2 FMC quote was 10% higher than the S&L model predicted.

3

4 **Q.** Do you agree with the timeline Dr. Sansom created and  
5 states that Tampa Electric should have followed?

6

7 **A.** No. Dr. Sansom's timeline is incredibly unreasonable.  
8 S&L has determined that just over 24 months is required  
9 from the start of engineering studies and conceptual  
10 design through startup of the retrofit design. Further,  
11 S&L would recommend that six weeks of float be built into  
12 the schedule to account for unforeseen events. That would  
13 bring the timeline to a 26 month span. A shorter time  
14 span for execution would significantly increase project  
15 costs due to premiums paid for expedited delivery and  
16 labor overtime.

17

18 Also, it is unrealistic to expect any organization to  
19 authorize the start of conceptual engineering immediately  
20 upon receipt of a proposal as Dr. Sansom suggests. It is  
21 our experience that utility clients would require a  
22 minimum of two months to review the proposal and obtain  
23 the necessary approvals to move forward with engineering  
24 studies and conceptual design work that would cost  
25 \$500,000 or more.

1 I have included as Document No. 2 of my exhibit a much  
2 more realistic timeline. My timeline, excluding the six  
3 weeks of contingency time, shows that the rail delivery  
4 retrofit at Big Bend Station starting with project  
5 authorization through startup and testing would take a  
6 minimum of 24 months, not 17 months as Dr. Sansom  
7 suggests.

8  
9 **S&L's Cost Estimate**

10 **Q.** CSXT criticizes your study and asserts the study was  
11 prepared hastily and therefore, inaccurately. Do you  
12 agree?

13  
14 **A.** Absolutely not. S&L was able to prepare an analysis and  
15 order of magnitude cost estimate within a three week  
16 period because of our extensive knowledge on the subject.  
17 S&L has a single focus; we perform consulting and design  
18 engineering services exclusively to the power industry,  
19 and as a result, routinely prepare estimates for these  
20 systems. As an example, S&L has recently performed over  
21 100 new coal power plant studies, which include estimated  
22 costs for similar equipment and which form the capital  
23 cost basis for new plant decisions. We are currently in  
24 the detailed design and construction phase of 15 utility  
25 material handling systems. The project management,

1 material handling and cost estimating specialists used in  
2 the performance of the study prepared for Tampa Electric  
3 perform this type of analysis exclusively on power plant  
4 systems and have over 100 years of collective experience  
5 in fossil power plant design. We would not have accepted  
6 the assignment had we felt the time constraints were  
7 unreasonable.

8  
9 **Q.** Dr. Sansom, in his summary on page 7 of his testimony,  
10 alleges S&L "failed to include many obvious steps that  
11 such analysis should include, such as evaluating permit  
12 conditions." Do you agree?

13  
14 **A.** Not at all. This allegation reflects a lack of  
15 understanding of the process. It is not typical or  
16 customary to evaluate permitting in detail as part of a  
17 technology screening analysis. Permitting issues are  
18 performed in the second stage of capital project  
19 planning, which is the conceptual or preliminary design  
20 phase.

21  
22 **Q.** CSXT criticized S&L for not obtaining vendor quotes. Was  
23 that a flaw in your analysis?

24  
25 **A.** No it was not. Because S&L's sphere of work is electric



1 power plants and distribution, we have extensive, current  
2 cost databases with power plant components. It is not  
3 our practice to solicit budget estimates from suppliers  
4 at this phase of work. If, based on the screening phase,  
5 the project were to be considered further, we would  
6 typically obtain cost estimates from major suppliers,  
7 design criteria would be established, and a cost estimate  
8 with an accuracy of plus or minus ten percent would be  
9 prepared. Vendor quotes were not necessary for purposes  
10 of this engagement since our database is comprehensive  
11 and appropriate for this analysis.

12  
13 **Q.** CSXT alleges the S&L study is not reliable because you  
14 did not consider the possible use of available facilities  
15 from Tampa Electric's Gannon site, freed up by the  
16 closure of the coal-fired plant. What is your response?

17  
18 **A.** S&L did not evaluate the reuse of existing assets at  
19 Tampa Electric's Gannon site and rightfully so; the  
20 screening process focused on the Big Bend and Polk  
21 stations only. It is customary to perform optimization  
22 studies of the type suggested by CSXT in the conceptual  
23 design phase, not in the screening phase of project  
24 development. It is not usual and customary in a screening  
25 evaluation to assume that 20+ year old assets not

1 currently at the facility may be reused. It has been my  
2 experience that the reuse of existing assets is typically  
3 more costly than using new equipment. In this particular  
4 case it would be more pronounced since older assets would  
5 have to be disassembled, relocated, and brought up to  
6 code.

7  
8 However, S&L did consider the reuse of existing  
9 facilities at Big Bend Station during the screening  
10 phase. Upon review of the limestone pit drawings, we  
11 determined that it was unlikely that the pit was long  
12 enough to accommodate quick discharge coal unloading  
13 space requirements. Further, it would be imprudent to  
14 assume that this 25 year-old structure could be modified  
15 to the extent necessary without evaluation of the  
16 structural integrity of the facility both in its current  
17 and modified configuration.

18  
19 **Q.** Apparently Dr. Sansom found great humor in the fact that  
20 22 of the 38 cost items identified in the S&L report were  
21 multiples of \$70,000. Because of this, he suggests your  
22 report is "worthless." How do you respond?

23  
24 **A.** It is usual and customary for a cost estimate used in the  
25 screening process to have line items rounded to the

1 nearest \$10,000. For a \$10 million project, rounding to  
2 a \$10,000 level represents one-tenth or .1 percent of the  
3 total project cost. To observe this rounding and leap to  
4 the conclusion that the study is "worthless" is absurd.

5  
6 **Q.** The foundation costs in the S&L report are much higher  
7 than what is reflected in CSXT's and Mr. Stamberg's  
8 proposal. What could account for the variance?

9  
10 **A.** S&L's foundation costs are not a function of concrete  
11 quantities alone. Foundation costs include excavation,  
12 forming of the foundation, rebar detailing, fabrication  
13 and delivery, concrete and labor. The S&L estimate  
14 provides foundation costs for three transfer houses, the  
15 conveyor pedestals, the rapid discharge pit, and conveyor  
16 tunnel.

17  
18 **Q.** Doesn't Mr. Stamberg account for these additional  
19 foundation costs?

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21 **A.** Again, it appears that the estimates used by Mr. Stamberg  
22 either omit or grossly understate foundation costs. For  
23 example, even if one were to use the rapid discharge pit  
24 he recommends, he estimates excavation costs to be  
25 \$2,000. That amount would not even cover the costs of

1 bringing in the necessary machinery to perform the  
2 excavation.

3  
4 **Q.** What basis did S&L use to design and estimate the cost of  
5 the rapid discharge pit?

6  
7 **A.** The basis of estimating the rapid discharge pit costs was  
8 consistent with S&L standards and industry practice.  
9 Detailed design drawings from an existing S&L project  
10 with a similar conveyor width were used to establish  
11 quantities. Labor rates used were from the S&L database  
12 which is updated yearly by region using the similar  
13 industry guidelines as described by Dr. Sansom and Mr.  
14 Stamberg in documents I reviewed. Additionally, S&L  
15 rates were further benchmarked and validated with actual  
16 cost data collected during the execution of the Gannon  
17 re-powering project. The cost of the foundations for the  
18 transfer houses and conveyor pedestals was benchmarked  
19 from data on existing designs of similar size and weight  
20 constraints.

21  
22 Upon review of the hand calculations (undated and  
23 unsigned) provided by Mr. Stamberg, it appears that the  
24 pit width and depth used is substantially smaller than a  
25 final design would require. Also, there is no indication

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that the associated underground conveyor tunnel is included in the concrete estimate.

Specifically I have identified the following errors made by Mr. Stamberg:

1. Mr. Stamberg's outside dimension for the pit is 12 feet compared to S&L's outside dimension of 29 feet. S&L's design estimates four foot wall thickness to overcome hydraulics. This allows 21 feet internal wall to wall space to provide room for the conveyor and maintenance access to both sides.
2. The pit depth was estimated at 25 feet compared to S&L's pit depth of 40 feet.

Finally, the S&L pit size estimate is based upon the actual as-built design of an existing structure of similar service and same size conveyor. It includes all required access to and from the pit for normal maintenance and emergency evacuation. Mr. Stamberg's design is 54 percent of the size the pit required for the equipment and maintenance access. It also excludes quantities required for the subsequent conveyor tunnel.

Q. Does this complete your testimony?

1 A. Yes, it does.

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EXHIBIT NO. \_\_\_\_\_  
TAMPA ELECTRIC COMPANY  
DOCKET NO. 031033-EI  
(PMG-1)  
DOCUMENT NO. 1

EXHIBIT TO TESTIMONY OF  
PAULA M. GULETSKY

DOCUMENT NO. 1

"S&L ENGAGEMENT LETTER"

**From:** Ralph Painter  
**To:** gregory.a.anderson@sargentlundy.com; paula.m.guletsky@sargentlundy.com  
**Date:** 8/27/03 2:26PM  
**Subject:** Tampa Electric Company w.o 1758420-2. CSXT rail coal delivery proposal evaluation

August 27, 2003

Mr. Gregory Anderson  
Senior Vice President  
Sargent and Lundy, LLC

Please consider this e-mail your authorization to provide assistance in performing a technical evaluation of the attached proposal from CSX Transportation, Inc. to provide rail delivery of coal to Tampa Electric Company's Big Bend and Polk Power Station. This authorization is on a time and material basis not to exceed \$20,000 per the current continuing services agreement between Sargent and Lundy and Tampa Electric Company.

The MSWord Document attached, Scope.doc, contains an outline of the elements of the evaluation. Those that are primarily Sargent and Lundy's responsibility are marked "S&L" and those that are primarily Tampa Electric's responsibility are marked "TE." The scope document includes a milestone schedule. The final report is required by September 5, 2003.

The Adobe PDF files are copies of the CSX Transportation proposal and followup documents dated 07/30/03 and 08/11/03. Of course, CSXT's proposal is confidential.

A conference call to kick off this activity is schedule for today at 2:30 PM Central time between Ms. Paula M. Guletski, Mr. Denis Barrette and myself.

Mr. Eugene Zakis was very helpful in initiating this activity.

Thank you for your assistance.

Sincerely,

Ralph D. Painter, Jr.  
Manager- Generation Engineering  
Tampa Electric Company  
(813) 641-5224.

**CC:** Barrette, Denis; Black, Charles R.; eugene.zakis@sargentlundy.com; Shelnut, Charles



REDACTED

EXHIBIT NO. \_\_\_\_\_  
TAMPA ELECTRIC COMPANY  
DOCKET NO. 031033-EI  
(PMG-1)  
DOCUMENT NO. 2

EXHIBIT TO TESTIMONY OF  
PAULA M. GULETSKY

DOCUMENT NO. 2

"RAIL DELIVERY RETROFIT TIMELINE"

EXHIBIT NO. \_\_\_\_\_  
DOCKET NO. 031033-EI  
TAMPA ELECTRIC COMPANY  
(PMG-1)  
DOCUMENT NO. 2  
PAGE 1 OF 1

DOCUMENT NO. 2  
TO PAULA M. GULETSKY'S TESTIMONY  
ARE CONFIDENTIAL AND HAVE  
BEEN REDACTED FROM THIS  
PUBLICLY FILED VERSION