

# AUSLEY & McMULLEN

ATTORNEYS AND COUNSELORS AT LAW

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

August 22, 2012

HAND DELIVERED

RECEIVED-FPSC  
12 AUG 22 PM 1:50  
COMMISSION  
CLERK

Ms. Ann Cole, Director  
Division of Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

REDACTED

Re: Petition for approval of new environmental program for cost recovery through  
Environmental Cost Recovery Clause by Tampa Electric Company;  
Docket No. 110262-EI

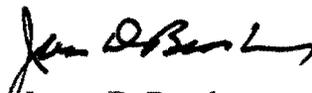
Dear Ms. Cole:

Enclosed is one copy of Tampa Electric Company's response to Staff's Sixth Data Request  
dated August 7, 2012.

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

Thank you for your assistance in connection with this matter.

Sincerely,

  
James D. Beasley

JDB/pp  
Enclosure

cc: Charles Murphy (w/enc.)

DOCUMENT NUMBER-DATE

05760 AUG 22 12

FPSC-COMMISSION CLERK

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REQUEST NO. 1  
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For purpose of Questions 1-4, please refer to TECO's Follow-Up Report – Gypsum Disposal filed August 1, 2012.

1. Referring to Paragraph 6 on page 4:
  - a. Please explain in detail why a liner below the area of the existing storage facility must be installed specifically by April 2015.
  - b. Please identify the relevant environmental rule or regulation that requires activity discussed in No. 1a.
  - c. Please provide the pinpoint legal citation to the rule or regulation identified in No.1b.
  - d. If a liner below the area of the existing storage facility is not installed by April 2015, will TECO violate any environmental rule or regulation?
  - e. If TECO's petition for the new gypsum storage facility is approved by the Commission, when does TECO expect to place the new facility in-service?
  - f. Assuming all the gypsum in the existing facility has been removed, how long will it take to complete the installation project discussed in No. 1a?
  - g. Please explain how TECO will deal with the gypsum stored in the existing facility before starting the installation of the liner, given the in-service date of the proposed new facility described in No. 1e and the April 2015 commencement date of liner installation.
- A.
  - a. The lining of the existing storage area at Big Bend is necessary to ensure continued compliance with the provisions of Chapters 62-520 and 62-522, F.A.C., which require existing installations, with the potential to discharge to groundwater to meet primary drinking water standards. The lining of the existing storage area is also a condition of FDEP Consent Order 00-1275 which requires Tampa Electric to remediate the underlying soil in the storage area to an appropriate depth and install a liner to eliminate the potential for future impacts to groundwater. The completion date of the gypsum project under the approved schedule, including both the remediation and the installation of the liner, is April 1, 2015.
  - b. The lining of the existing storage area at Big Bend is necessary to ensure continued compliance with the provisions of Chapters 62-520 and 62-522, F.A.C.

DOCUMENT NUMBER-DATE

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which require existing installations with the potential to discharge to groundwater to meet primary drinking water standards.

- c. The legal citation for the regulation cited in 1(b), above, is Sections 403.062, 403.063 and 403.087, Florida Statutes; Rules 62-520 and 62-522, Florida Administrative Code.
- d. Yes. Without lining the existing storage area, Tampa Electric could potentially be in violation of Sections 403.062, 403.063 and 403.087, Florida Statutes; Rules 62-520 and 62-522, Florida Administrative Code and the consent order mentioned in Response 1(a), above.
- e. Tampa Electric expects the timeline for the Storage Area Reduced Scope option to be approximately 18 months. This includes 12 months for permitting activities and six months for construction. A delay in the timeframe for permitting could occur based on requests for additional information from respective agencies regarding permits. Tampa Electric is anticipating an in-service date of mid-2014.
- f. It is expected to take six months to complete all activities associated with installing a liner at the existing storage area.
- g. As mentioned in Tampa Electric's response to 1(e) above, the company is anticipating construction of the new storage area to take place as soon as possible for a completion date of mid-2014. Until the new storage area is completed and available for use, Tampa Electric will continue to use the existing storage facility. Since the facility is at its maximum practical capacity, the company is sending some lesser quality gypsum to a landfill and is using best management practices to minimize any dusting. Gypsum produced after the new storage area is placed into service will be transported to the new site and stored there. Off-takers will continue to pick up gypsum from the existing storage area. This will reduce the inventory at the existing site without the need to landfill large amounts of gypsum and will reduce dusting issues at that location. Also, the company intends to use 200,000 tons of gypsum from the existing storage area as a protective layer over the liner for the new storage area. This will be deposited prior to the in-service date of the new storage area and eliminate the need to purchase sand or other material for the required protective layer as well as reduce the gypsum inventory in the existing storage area.

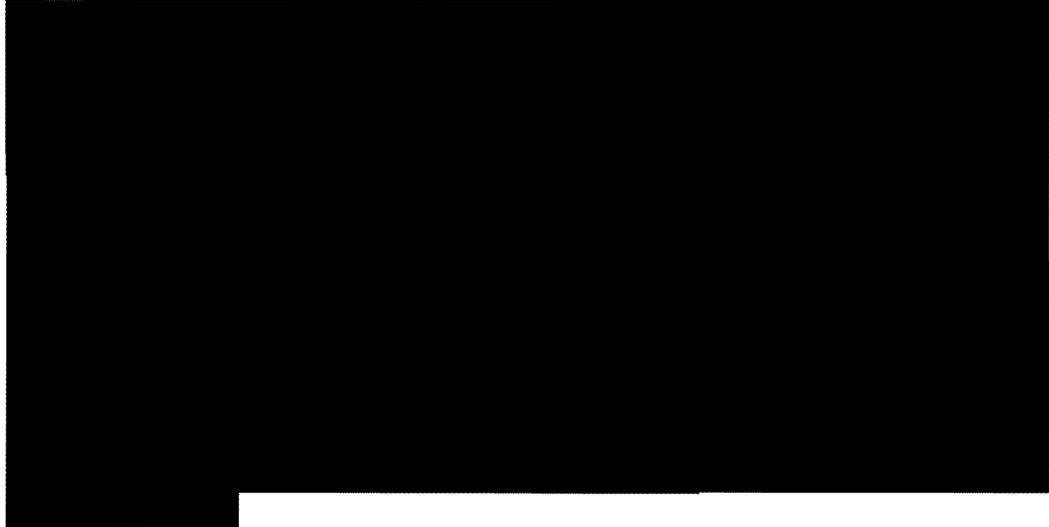
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**2. Referring to Paragraph 8 on page 5:**

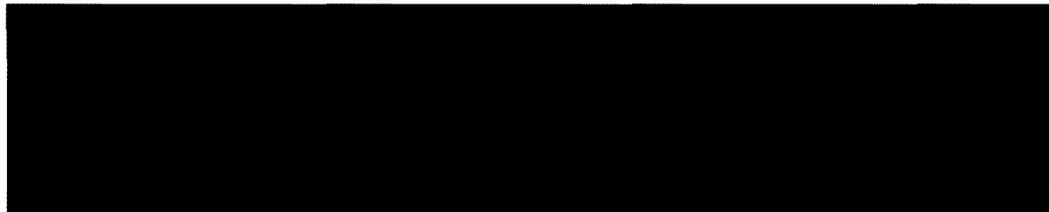
- a. With respect to "the possibility of continued dusting problems" resulting from the elimination of the storage dome and conveyor system from TECO's original petition, please explain how the Company will comply with its "Long-Term Plan of Action" specified in its letter of May 31, 2012, to the Environmental Protection Commission of Hillsborough County (page 19 of TECO's response to Staff's 4<sup>th</sup> data request).
- b. Please explain in greater detail regarding "the increased risk that off-takers may reject gypsum" due to the elimination of the storage dome. Please also explain how significant the risk may be, how TECO will minimize the risk, and what will be the estimated costs associated with the risk and its counter measures.
- c. Please provide detailed information on (1) the benefits pertaining to the dome for the original proposed new storage facility; (2) the potential risks from eliminating the dome; (3) the benefits pertaining to the installation of the conveyor system for the original proposed new storage; and (4) the potential risks from eliminating the conveyor system.
- d. With respect to Exhibit E Capital Cost Breakdown, please identify: (1) the line item(s) containing the cost of the dome; (2) the estimated cost of the dome; (3) the line item(s) containing the cost of the conveyor system; and (4) the estimated cost of the conveyor system.
- e. With respect to the table of "Estimated Annual O&M Expense" and the table "Estimated Initial Capital Investment" contained in Exhibit D, please extend each table by adding two columns: (1) Storage Area Reduced Scope but Keeping the Dome; (2) Storage Area Reduced Scope but Keeping the Conveyor System.
- f. Please explain in detail what accounts for the significant increases in the Estimated Annual O&M Expense of the Reduced Scope versus the Original Scope. Please also identify the major activities, and their associated costs, that contribute to the incremental O&M Expense.
- g. Please identify: (1) NPV of the Storage Area Reduced Scope but Keeping the Dome; (2) NPV of the Storage Reduced Scope but Keeping the Conveyor System.
- h. Will the total project NPV of Storage Area Original Scope be \$49,410,638? (\$45,441,210 + \$3,969,428). Please explain your response.

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- i. Will the total project NPV of Storage Area Reduced Scope be \$57,172,727? (\$18,635,384 + \$38,537,343). Please explain your response.
  - j. Given the Storage Area Original Scope NPV, Storage Area Reduced Scope NPV, the transportation savings of the Storage Area Original Scope over the asset life, the potential risks resulting from eliminating the conveyor system and dome, please provide a detailed explanation that justifies eliminating the conveyor system and the dome from the original scope of the proposed facility.
- A.**
- a. In Tampa Electric's informational letter to the Environmental Protection Commission of Hillsborough County ("EPC"), the reference to a "Long-Term Plan of Action" is Tampa Electric's intention of utilizing the new storage area. The new storage area is farther away from the residents, located northeast of the existing facility, which will significantly reduce or eliminate the impact of "continued dusting problems." While the "Long-term Plan of Action" specified in the letter to the EPC refers to the dome and conveyor, the company believes that the Reduced Scope option can be permitted in an environmentally acceptable manner.
  - b. The risk associated with potential off-takers rejecting gypsum due to the elimination of the storage dome has to do with the moisture contained in the gypsum. [REDACTED]
- [REDACTED]
- [REDACTED] During normal operations, Tampa Electric provides National with re-claimed gypsum from its uncovered storage areas. Exposed areas are open to the elements and as a result, surface gypsum that initially did not exceed the moisture content can absorb water from rainfall and exceed the maximum moisture content. This risk is at its highest during summer months when the rainfall is at its highest.



The second risk for meeting the moisture specifications of the National agreement is the storage area's exposure to rainfall. To mitigate this risk without the use of a dome, Tampa Electric will use various pile management techniques to improve water drainage and to minimize moisture seeping into gypsum. To improve water drainage from the gypsum piles, the piles are tightly packed to improve their ability to shed water and to eventually reduce the gypsum moisture content [REDACTED]. Gypsum naturally creates a protective shell that minimizes the intrusion of water when exposed to rainfall. Additionally, water intrusion occurs when the pile is disturbed to remove gypsum and the disturbed area is exposed to the elements. To minimize this potential risk, Tampa Electric only removes material from a small area. The pile management techniques described above are not only used for moisture management but are also used for dust mitigation; as such, there is no significant increase in the costs.



In addition, the company can be exposed to landfill expense associated with the gypsum not taken.

c.



Elimination of the dome increases the risk that moisture content may raise above the allowed level

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in gypsum. The consequence of this risk is influenced by several factors and is outlined in the response to Staff's Sixth Data Request, No. 2(b), above.

The conveyor system included in the original scope provided several benefits. The conveyor would transport gypsum from the point of production to the new storage area on a continuous basis without the need for manual intervention (i.e., loading, trucking, unloading). The conveyor would transport gypsum above the public road (Wyandotte Rd.) thereby avoiding interference with traffic or the risk of vehicle accidents. The conveyor design is a pipe conveyor that encloses the gypsum during transport greatly reducing the potential for nuisance dusting emissions.

There are risks associated with eliminating the conveyor from the proposed project. Relying on trucking to transport gypsum to the new storage area creates the potential for service interruptions due to trucking contractor non-performance as well as the potential for traffic accidents on public roads. It would also increase nuisance dust emissions from loading, transporting and unloading trucks.

Additionally, the following administrative controls will need to be set in place to mitigate the potential for dust emissions.

- Speed limits designed to minimize dust emissions;
- Robust tarp securing procedures;
- Avoidance of material transport on unpaved areas; and
- Watering of roads to minimize dust emissions.

- d. The following line items contain the dome: Construction Activities, Engineering Major Equipment, Project Construction Management and Contingency with an estimated cost of \$4,690,000.

The following line items contain the cost of the conveyor system: Construction Activities, Engineering Major Equipment, Project Construction Management and Contingency with an estimated cost of \$24,057,000.

- e. Please see the tables below that reflect the revised Estimated Annual O&M Expenses and Estimated Initial Capital Investments.

Please note that the estimate of O&M expenses for the original scope included only the incremental costs for conveyor maintenance. In order to accurately assess and compare the O&M costs between the Original Scope and other options, Tampa Electric expanded its original O&M costs in its Original Scope option from an incremental to a more comprehensive basis to include additional

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components of O&M costs. These revised costs are reflected in column "Storage Area Revised Original Scope."

**Estimated Annual O&M Expense**

Year	Storage Area Original Scope	Storage Area Revised Cost Original Scope	Storage Area Reduced Scope	Storage Area Reduced Scope with Dome	Storage Area Reduced Scope with Conveyor
2012	\$0	\$8,949,690	\$8,949,690	\$8,949,690	\$8,949,690
2013	\$0	\$74,961	\$74,961	\$74,961	\$74,961
2014	\$0	\$1,884,606	\$2,102,747	\$2,102,747	\$1,884,606
2015	\$77,000	\$764,954	\$1,440,016	\$1,449,968	\$755,002
2016	\$154,000	\$857,386	\$1,313,759	\$1,333,663	\$837,481
2017	\$256,000	\$974,620	\$1,319,410	\$1,352,498	\$941,532
2018	\$359,000	\$1,093,472	\$1,348,479	\$1,394,880	\$1,047,070
2019	\$359,000	\$1,110,151	\$1,378,666	\$1,425,068	\$1,063,750
2020	\$359,000	\$1,127,350	\$1,409,670	\$1,456,072	\$1,080,949
2021	\$359,000	\$1,145,926	\$1,394,828	\$1,441,230	\$1,099,525
2022	\$360,000	\$1,164,252	\$1,425,766	\$1,472,297	\$1,117,721
2023	\$360,000	\$1,181,482	\$1,448,219	\$1,494,750	\$1,134,951
2024	\$360,000	\$1,200,264	\$1,493,732	\$1,540,262	\$1,153,734
2025	\$360,000	\$1,218,661	\$1,524,871	\$1,571,401	\$1,172,130
2026	\$360,000	\$1,237,491	\$1,557,256	\$1,603,786	\$1,190,960
2027	\$361,000	\$1,257,599	\$1,587,742	\$1,634,402	\$1,210,939
2028	\$361,000	\$1,277,866	\$1,633,084	\$1,679,744	\$1,231,206
2029	\$361,000	\$6,776,372	\$7,145,302	\$7,191,961	\$6,729,712
2030	\$361,000	\$10,509,667	\$10,893,700	\$10,940,360	\$10,463,007
2031	\$362,000	\$10,555,932	\$10,946,933	\$10,993,722	\$10,509,143
2032	\$362,000	\$11,011,659	\$11,430,178	\$11,476,967	\$10,964,869
2033	\$362,000	\$11,268,144	\$11,704,885	\$11,751,674	\$11,221,355
2034	\$362,000	\$11,472,693	\$11,925,332	\$11,972,121	\$11,425,904
2035	\$363,000	\$8,353,176	\$8,663,515	\$8,710,433	\$8,306,258
2036	\$363,000	\$1,423,407	\$1,412,499	\$1,459,417	\$1,376,489
2037	\$363,000	\$1,446,631	\$1,443,469	\$1,490,387	\$1,399,712
2038	\$364,000	\$1,449,567	\$1,453,322	\$1,500,369	\$1,402,520

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Year	Storage Area Original Scope	Storage Area Revised Cost Original Scope	Storage Area Reduced Scope	Storage Area Reduced Scope with Dome	Storage Area Reduced Scope with Conveyor
2039	\$364,000	\$1,460,440	\$1,472,285	\$1,519,332	\$1,413,392
2040	\$364,000	\$1,485,891	\$1,506,005	\$1,553,052	\$1,438,843
2041	\$364,000	\$1,492,224	\$1,520,788	\$1,567,836	\$1,445,176
2042	\$365,000	\$1,504,998	\$1,541,198	\$1,588,375	\$1,457,821
2043	\$365,000	\$1,530,073	\$1,575,100	\$1,622,277	\$1,482,896
2044	\$365,000	\$1,555,811	\$1,609,858	\$1,657,035	\$1,508,634
2045	\$366,000	\$1,376,329	\$1,438,595	\$1,485,901	\$1,329,022
2046	\$366,000	\$1,398,513	\$1,470,202	\$1,517,508	\$1,351,207
2047	\$366,000	\$1,421,244	\$1,502,561	\$1,549,868	\$1,373,938
2048	\$367,000	\$1,445,591	\$1,535,750	\$1,583,185	\$1,398,156
2049	\$367,000	\$1,469,183	\$1,569,399	\$1,616,834	\$1,421,748
<b>NPV</b>	<b>\$3,969,428</b>	<b>\$35,230,856</b>	<b>\$38,537,343</b>	<b>\$38,944,396</b>	<b>\$34,823,802</b>

**Estimated Initial Capital Investment**

Year	Storage Area Original Scope	Storage Area Reduced Scope	Storage Area Reduced Scope with Dome	Storage Area Reduced Scope with Conveyor
2011	\$1,772,000	\$1,832,000	\$1,832,000	\$1,832,000
2012	\$9,023,000	\$2,404,000	\$2,404,000	\$2,404,000
2013	\$11,378,600	\$10,812,000	\$13,707,000	\$10,967,000
2014	\$24,972,400	\$6,695,000	\$8,490,000	\$22,948,000
2015	\$7,830,700	\$0	\$0	\$7,649,000
<b>Capital Investment Total</b>	<b>\$54,976,700</b>	<b>\$21,743,000</b>	<b>\$26,433,000</b>	<b>\$45,800,000</b>
<b>Net Present Value</b>	<b>\$45,441,210</b>	<b>\$18,635,384</b>	<b>\$22,540,599</b>	<b>\$37,281,293</b>

- f. The increase in O&M expense in the cost estimate for the Storage Area Reduced Scope analysis includes costs not included in the Original Scope analysis. The additional O&M costs included were costs associated with manpower, equipment as well as fuel costs associated with pile management, landfilling of existing and future gypsum, opportunity costs associated with lost gypsum sales, loading expense, and material testing expense associated with the handling of gypsum and the management of its storage. These costs were in addition to the expense to truck the material not removed from the stack out area by National or by other gypsum customers. Some landfilling of future

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gypsum production is forecasted to be needed in the years 2029 through 2035 given the current projected purchases from National and other customer sales. However, this projected landfill expense may be avoided if additional sales to any of the current or future customers are able to beneficially reuse gypsum. A table detailing the net present value of these costs is show below.

**Storage Area Reduced Scope O&M Costs  
(2012 \$)**

Loading Expense (\$)	Tester Expense (\$)	Pile Management (\$)	Trucking Expense (\$)	Landfill Expense <sup>1</sup> (\$)	Opportunity Cost (\$)	Total (\$)
4,496,023	1,373,207	5,245,361	5,611,649	20,228,699	1,582,403	38,537,343

<sup>1</sup> Approximately \$9 million dollars of the landfill expense will occur in 2012 with the landfilling of the lower quality gypsum currently in progress

- g. Please see the table below reflecting the NPV for the Storage Area Original Scope, Storage Area Revised Cost Original Scope, Storage Area Reduced Scope, Storage Area Reduced Scope with Dome and Storage Area Reduced Scope with Conveyor.

Year	Storage Area Original Scope <sup>1</sup>	Storage Area Revised Cost Original Scope	Storage Area Reduced Scope	Storage Area Reduced Scope with Dome	Storage Area Reduced Scope with Conveyor
2012	\$0	\$6,508,465	\$6,508,465	\$6,508,465	\$6,508,465
2013	\$0	(\$2,815,118)	(\$2,815,118)	(\$2,815,118)	(\$2,815,118)
2014	\$0	(\$1,234,465)	\$3,920,069	\$4,615,394	(\$1,234,465)
2015	\$7,202,564	\$6,482,268	\$2,866,791	\$3,556,296	\$5,042,935
2016	\$6,907,007	\$5,710,154	\$2,237,024	\$2,920,712	\$4,294,049
2017	\$6,629,594	\$5,175,042	\$1,889,898	\$2,571,000	\$3,778,924
2018	\$6,423,197	\$4,932,216	\$1,718,231	\$2,396,874	\$3,555,956
2019	\$6,167,739	\$4,583,249	\$1,544,485	\$2,207,357	\$3,240,170
2020	\$5,907,519	\$4,231,619	\$1,369,136	\$2,016,237	\$2,921,709
2021	\$5,622,709	\$4,965,949	\$2,233,317	\$2,864,648	\$3,689,211
2022	\$5,375,684	\$4,635,277	\$2,079,343	\$2,695,032	\$3,391,589
2023	\$5,137,701	\$4,302,327	\$1,916,519	\$2,516,437	\$3,091,807
2024	\$4,871,564	\$3,965,414	\$1,772,092	\$2,356,239	\$2,788,070
2025	\$4,622,596	\$3,627,613	\$1,613,652	\$2,182,029	\$2,483,444
2026	\$4,371,872	\$3,287,585	\$1,454,677	\$2,007,282	\$2,176,586
2027	\$4,124,195	\$2,946,533	\$1,292,409	\$1,829,373	\$1,868,580
2028	\$3,857,281	\$2,601,024	\$1,141,302	\$1,662,495	\$1,556,246

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Year	Storage Area Original Scope <sup>1</sup>	Storage Area Revised Cost Original Scope	Storage Area Reduced Scope	Storage Area Reduced Scope with Dome	Storage Area Reduced Scope with Conveyor
2029	\$3,604,117	\$7,732,658	\$6,456,910	\$6,962,333	\$6,721,049
2030	\$3,348,392	\$11,096,087	\$10,006,681	\$10,496,333	\$10,117,659
2031	\$3,101,983	\$10,770,671	\$9,860,447	\$10,334,457	\$9,825,284
2032	\$2,828,797	\$10,849,022	\$10,139,536	\$10,597,775	\$9,936,804
2033	\$2,566,642	\$10,726,477	\$10,209,470	\$10,651,938	\$9,847,439
2034	\$2,306,609	\$10,549,304	\$10,223,492	\$10,650,190	\$9,703,434
2035	\$2,247,471	\$7,067,377	\$6,775,640	\$7,186,696	\$6,254,554
2036	\$2,494,758	(\$114,473)	(\$629,056)	(\$233,771)	(\$894,118)
2037	\$2,246,645	(\$476,665)	(\$809,102)	(\$429,588)	(\$1,223,141)
2038	\$2,506,019	(\$298,165)	(\$955,770)	(\$591,897)	(\$1,011,596)
2039	\$2,567,418	(\$332,812)	(\$1,117,429)	(\$769,327)	(\$1,013,068)
2040	\$2,300,681	(\$719,803)	(\$1,303,125)	(\$970,794)	(\$1,366,889)
2041	\$2,490,669	(\$620,392)	(\$1,458,958)	(\$1,142,398)	(\$1,234,299)
2042	\$2,566,814	(\$644,457)	(\$1,624,239)	(\$1,323,321)	(\$1,225,320)
2043	\$2,344,327	(\$989,381)	(\$1,811,561)	(\$1,526,413)	(\$1,537,076)
2044	\$2,118,774	(\$555,563)	(\$1,216,874)	(\$947,497)	(\$1,070,078)
2045	\$1,898,055	\$970,212	\$465,129	\$718,864	\$488,738
2046	\$1,674,931	\$679,582	\$333,334	\$571,297	\$231,278
2047	\$1,449,950	\$383,470	\$198,131	\$420,326	(\$31,651)
2048	\$1,222,713	\$78,430	\$56,456	\$263,009	(\$303,652)
2049	\$1,000,124	(\$209,054)	(\$72,091)	\$118,690	(\$557,963)
<b>NPV Totals</b>					
Capital	\$83,351,452	\$78,768,785	\$41,218,205	\$47,024,115	\$67,810,167
O&M	\$3,969,428	\$35,230,856	\$38,537,343	\$38,944,396	\$34,823,802
Transportation Savings	(\$26,019,675)	(\$16,968,136)	\$0	\$0	(\$16,968,136)
Sub Total	\$61,301,204	\$97,031,505	\$79,755,547	\$85,968,511	\$85,665,833
Gypsum Revenue	\$0	\$46,571,625	\$46,571,625	\$46,571,625	\$46,571,625
Total	<b>\$61,301,204</b>	<b>\$50,459,880</b>	<b>\$33,183,922</b>	<b>\$39,396,886</b>	<b>\$39,094,208</b>

1) The Net Present Value for Storage Area Original Scope was originally calculated using 2015 dollars as its basis. The remaining options have been calculated using 2012 dollar basis.

- h. No. The total project NPV of the Storage Area Original Scope is \$61,301,204 and includes capital and O&M for the life of the option (through 2049). That number was filed on August 29, 2011 with the original petition and has been repeated in Exhibit C. However, in an effort to present data in a similar manner to tables on pages 14 and 15 of Staff's recommendation dated March 29, 2012,

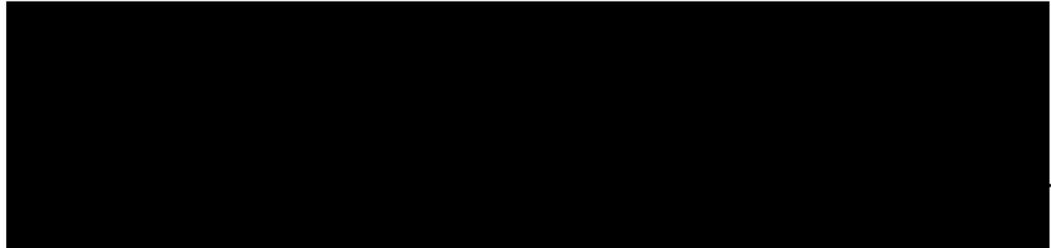
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Exhibit D of Tampa Electric's Follow-Up Report and Amendment to Petition contains a table entitled "Estimated Initial Capital Investment" where five years of nominal capital expenditures for the Storage Area Original Scope option are presented along with the NPV of those expenditures (\$45,441,210). No capitalization of those estimated expenditures was presented in that table. It is simply nominal capital construction expenditures and their associated NPV calculation result. Exhibit D also contains a table entitled "Estimated Annual O&M Expense" where the annual O&M expenditures for the life of the Storage Area Original Scope option are presented in nominal dollars. Below that table is the NPV of those nominal O&M expenses (\$3,969,428). Since the capital expenditure dollars provided in the table have not been capitalized over the life of the option (through 2049), it would be incorrect to add \$45,441,210 and \$3,989,428 and assume their sum of \$49,410,638 is the total project NPV of the Storage Area Original Scope. Again, the total project NPV of the Storage Area Original Scope is \$61,301,204 and includes capital and O&M for the life of the option.

- i. No. The total project NPV of the Storage Area Reduced Scope is \$33,183,922. It includes capital and O&M for the life of the option (through 2049) and is presented in Exhibit C. However, in an effort to present data in a similar manner to tables on pages 14 and 15 of the Staff's recommendation dated March 29, 2012, Exhibit D of Tampa Electric's Follow-Up Report and Amendment to Petition contains a table entitled "Estimated Initial Capital Investment" where five years of nominal capital expenditures for the Storage Area Reduced Scope option are presented along with the NPV of those expenditures (\$18,635,384). No capitalization of those estimated expenditures was presented in that table. It is simply nominal capital construction expenditures and their associated NPV calculation result. Exhibit D also contains a table entitled "Estimated Annual O&M Expense" where the annual O&M expenditures for the life of the Storage Area Reduced Scope option are presented in nominal dollars. Below that table is the NPV of those nominal O&M expenses (\$38,537,343). Since the capital expenditure dollars provided in the table have not been capitalized over the life of the option (through 2049), it would be incorrect to add \$18,635,384 and \$38,537,343 and assume their sum of \$57,172,727 is the total project NPV of the Storage Area Reduced Scope. Again, the total project NPV of the Storage Area Reduced Scope is \$33,183,922 and includes capital and O&M for the life of the option.
- j. The Storage Area Original Scope NPV as filed was \$61,301,204. This represented the present value of the estimate project cash flows and the present value of the incremental O&M expenses associated with the conveyor system. As described in the response to question 2(e), the company has prepared a more detailed estimate of total O&M expenses and included this as a revision to

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the Storage Area Original Scope economics. This allows for an “apples to apples” comparison of four different project options (Revised Cost Original Scope, Reduced Scope, Reduced Scope with Dome and Reduced Scope with Conveyor)



for each case in response to question 2(g) above that includes the conveyor system.

Tampa Electric recognizes the Commission’s concerns over the capital cost associated with this project. The proposed Reduced Scope option, which eliminates the enclosed conveyor system, the storage dome and the associated infrastructure for these items, was developed in an effort to be responsive to those concerns. The Reduced Scope project does require higher operating costs but significantly reduces the initial capital cost of the project and results in a lower NPV and rate impact to customers.

Given the changes and refinements discussed above, which allow for a more accurate total cost comparison between cases, the NPV totals for Capital, O&M, transportation savings and gypsum revenue for the Revised Original Scope project is \$50.5 million, the Reduced Scope project is \$33.2 million, the Reduced Scope with Dome is \$39.4 million and the Reduced Scope with Conveyor is \$39.1 million. The Reduced Scope project has the lowest net present value cost of the options compared.

There are operating and financial risks associated with the Reduced Scope approach as discussed in detail in previous responses. Tampa Electric believes these risks are manageable and considering all the relevant information, has concluded the Reduced Scope option is a viable approach.

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- 3.** Please provide the following:
- a. Levelized annual revenue requirement of the proposed new storage facility with the original scope.
  - b. Levelized annual revenue requirement of the proposed new storage facility with the reduced scope.
  - c. Levelized annual revenue requirement of the proposed new storage facility with the reduced scope but keeping the conveyor system.
  - d. Levelized annual revenue requirement of the proposed new storage facility with reduced scope but keeping the dome.
- A.**
- a. The levelized annual revenue requirement for the proposed new storage facility with the original scope is \$4,879,211 per year. The levelized annual revenue requirement for the proposed new storage facility with the revised cost original scope is \$3,622,604.
  - b. The levelized annual revenue requirement for the proposed new storage facility with the reduced scope is \$2,602,507 per year.
  - c. The levelized annual revenue requirement for the proposed new storage facility with the reduced scope with the conveyor system is \$3,066,032 per year.
  - d. The levelized annual revenue requirement for the proposed new storage facility with the reduced scope with the dome is \$3,089,770 per year.

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4. Referring to Exhibit F Rate Impact Comparison,
- a. Does the column "Storage Area Original Scope" also include anticipated gypsum revenues for each respective year as does the column Storage Area Original Scope?"
  - b. If the response to 4a is negative, please update the column by including anticipated gypsum revenues for each respective year as they have been calculated for column "Storage Area Reduced Scope."
  - c. Please extend the Rate Impact Comparison table by adding two columns: (1) Storage Area Reduced Scope but Keeping the Dome; (2) Storage Area Reduced Scope but Keeping the Conveyor System.
- A.
- a. No. On Exhibit F, the column labeled "Storage Area Original Scope" does not include anticipated gypsum revenues for each respective year.
  - b. Please see the table below that reflects option "Storage Area Original Scope" with anticipated revenues for each respective year.

Customer Bill Impact Comparisons			
Residential Rate (\$/1,000 kWh)			
Year	Storage Area Original Scope	Storage Area Original Scope with Revenue <sup>1</sup>	Storage Area Reduced Scope <sup>2</sup>
2014	0.00	0.00	0.18
2015	0.41	0.29	0.14
2016	0.39	0.26	0.12
2017	0.38	0.25	0.11
2018	0.37	0.24	0.10

1) Also excludes flood plain mitigation costs no longer required.  
2) Please note the rate impact for the reduced scope has increased from Tampa Electric's August 1' 2012 filing due to an inadvertent use of higher gypsum revenue in the company's previous filing.

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c. Please see the table below that reflects the rate impact for Storage Area Reduced Scope with Dome and Storage Area Reduced Scope with Conveyor.

Customer Bill Impact Comparisons Residential Rate (\$/1,000 kWh)						
Year	Storage Area Original Scope	Storage Area Original Scope with Revenue <sup>1</sup>	Storage Area Revised Cost Original Scope	Storage Area Reduced Scope <sup>2</sup>	Storage Area Reduced Scope with Dome	Storage Area Reduced Scope with Conveyor
2014	0.00	0.00	0.01	0.18	0.22	0.01
2015	0.41	0.29	0.33	0.14	0.17	0.29
2016	0.39	0.26	0.30	0.12	0.15	0.26
2017	0.38	0.25	0.29	0.11	0.14	0.25
2018	0.37	0.24	0.28	0.10	0.14	0.24

1) Also excludes flood plain mitigation costs no longer required.

2) Please note the rate impact for the Reduced Scope has increased from Tampa Electric's August 1' 2012 filing due to an inadvertent use of higher gypsum revenue in the company's previous filing.

For purposes of the questions 5-6, please refer to the Company's responses to Staff's 4<sup>th</sup> Data Request.

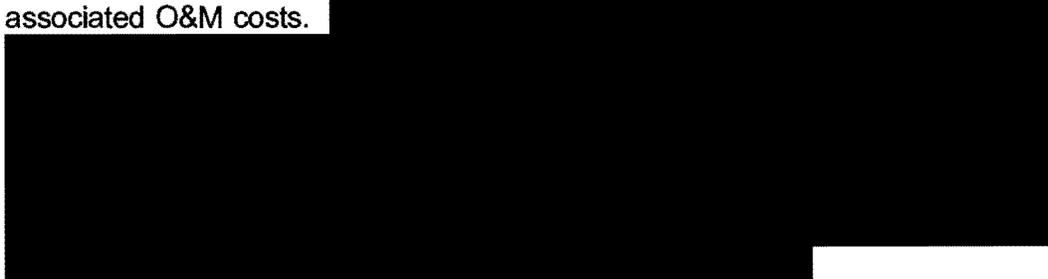
5. Please refer to the Company's response to Item 2(c), page 6.
- a. Will TECO own the trucks, lease the trucks or contract with a third-party?
  - b. Approximately how many trucks will be required?
  - c. What will be the size and price of the trucks?
  - d. The Company indicates that it "will have to implement administrative controls to mitigate the potential for dust emissions and safety concerns with truck traffic across public roads." Please describe in detail the "administrative controls."
- A.
- a. The analysis completed in response to Staff's Fourth Data Request assumed that the trucking required to move the gypsum from production to the new storage area was contracted with a third party.
  - b. Assuming that every ton of gypsum produced is trucked offsite, approximately 40,000 truckloads annually would be required to transport gypsum. [REDACTED] The remaining truckloads will either be going to storage, other gypsum off-takers or as a last resort to a landfill. From 2036 and beyond, the number of truckloads will begin to decline due to the decrease in gypsum production as a result of the retirement of various Big Bend coal units.
  - c. Tampa Electric and its gypsum off-takers currently utilize two different sizes of trucks; a smaller truck that has a maximum capacity of 20 tons and a larger truck that has a maximum capacity of 25 tons. The smaller trucks, on average, are loaded with 18-19 tons of gypsum. The larger trucks, on average, are loaded with 23-24 tons of gypsum. Tampa Electric has two different pricing structures for trucking gypsum to different parts of its site. For lower volume moves, Tampa Electric will contract with a trucking company to move the gypsum on an hourly price basis of [REDACTED]. For larger gypsum moves, the company will contract the trucking on a dollar/ton basis of [REDACTED]. Generally, National and other customers who receive gypsum by trucking contract their deliveries independently of Tampa Electric.
  - d. Administrative controls are Tampa Electric's written criteria for best operating practices implemented through contracts and/or conditions for employment. The

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administrative controls that Tampa Electric indicates it will have to implement in order to mitigate the potential for dust emissions include but are not limited to:

- Speed limits designed to minimize dust emissions;
- Robust tarp securing procedures;
- Avoidance of material transport on unpaved areas; and
- Watering of roads to minimize dust emissions

- 6.** Please refer to page 13 of the Company's response.
- a. What do the NPVs on this page represent?
  - b. Do the NPV amounts shown on this page include both capital and O&M costs?
  - c. Please explain why in certain years (e.g., 2013, 2039 through 2044) TECO expects to incur significant amounts of negative NPV.
- A.**
- a. The NPV on page 13 of Tampa Electric's Response to Staff's Fourth Data Request, No. 2(c) represent the annual revenue requirements that are comprised of capital, associated O&M and transportation savings.
  - b. Yes, as mentioned in response to 6(a) above, the NPV shown on page 13 of Tampa Electric's Response to Staff's Fourth Data Request, No. 2(c) is inclusive of both capital and O&M Costs.
  - c. In Tampa Electric's "Storage Area Reduced Scope" NPV analysis, gypsum revenues are included in the calculation. In the years specified above, the gypsum revenues exceed the capital revenue requirements and/or the associated O&M costs.



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7. Please refer to Exhibits C and D of TECO's Follow-Up Report and Staff's questions numbered 2h and 2i of this Sixth Data Request, which were used to create the chart below.

	Storage Area Original Scope			Storage Area Reduced Scope		
	O&M	Capital	Total	O&M	Capital	Total
As Exhibit C			\$61,301,204			\$33,183,922
As Exhibit D	\$3,969,428	\$45,441,210	\$49,410,638 *	\$38,537,343	\$18,635,384	\$57,172,727 *

\*: Staff calculated as shown in Nos. 2h and 2i of this data request.

Please reconcile the total NPV for each scope and explain your answer.

- A. Please see Tampa Electric's response to Staff's Sixth Data Request, No. 2, Parts (h) and (i).