

Florida Public Service Commission
Fact Sheet: Docket No. 110262-EI
Tampa Electric Company
Petition for approval of new environmental program for cost recovery
through the Environmental Cost Recovery Clause

Background

- Tampa Electric Company (TECO) petitioned the Florida Public Service Commission (PSC) on August 29, 2011 for approval of a new Big Bend (BB) Station Gypsum Storage Facility Program, with program costs recovered through the Environmental Cost Recovery Clause (ECRC).
- In its petition, TECO said that to continue operating its BB Units 1 through 4 in compliance with applicable environmental requirements, it needs to construct a new facility at BB Station to store gypsum, a by-product of the flue gas desulfurization (FGD) systems, commonly referred to as scrubbers, currently serving these coal-fired units.
- The new facility will cover approximately 27 acres and hold 870,000 tons of gypsum at full capacity, complementing the existing storage area which holds 1 million tons at total capacity.

Description of Gypsum By-Product

- Gypsum is an unavoidable by-product of the FGD systems operation used to control sulfur dioxide (SO₂) emissions when coal is burned.
- During the scrubbing process, coal combustion gases are sprayed with a mixture of water and limestone. Sulfur oxides react with the spray to form gypsum. Historically, TECO has been able to sell a large portion of its gypsum and is continuing to develop opportunities to market and economically dispose of its excess gypsum.
- Gypsum is used in wallboard (dryboard), cement, and concrete for construction and as a soil nutrient or fertilizer in agriculture.

Eligibility for the ECRC Cost Recovery

- TECO's Big Bend Power Station meets strict environmental regulations through the use of FGD systems or "scrubbers," which remove sulfur dioxide produced when coal is burned.
- Based on prior PSC orders and present circumstances, TECO cannot operate the BB Units un-scrubbed, consistent with the Clean Air Act Amendments of 1990 (CAAA) and the Consent Decree TECO entered into in 2000.
- The proposed storage facility will enable TECO to continue operating the BB Units in compliance with the CAAA and the Consent Decree by providing cost-effective gypsum disposal.

- TECO has conducted an economic comparison among various alternatives and has represented to the Commission that the proposed new storage is the most cost-effective option. Other alternatives included permanent gypsum disposal in a landfill constructed and owned by TECO or in a third-party owned landfill. Switching generating fuels to low sulfur coal would largely avoid the gypsum by-product.
- Rather than serve as a permanent storage area, the proposed facility is designed to manage temporary imbalances in gypsum supply and demand by providing “working storage.”

Cost Effectiveness of the Proposed New Storage Facility

- TECO currently produces approximately 700,000 tons of gypsum annually at the BB Station. The company’s goal is to manage gypsum through beneficial reuse at the lowest and most reliable long run costs to its customers.
- TECO has adjusted its capital cost investment and project scope, from \$55 million to \$21.7 million by eliminating certain capital components, including the conveyor system and the storage dome. As a result, estimated annual operation and maintenance costs will be higher than the original \$345,000.
- The table below presents the levelized annual revenue requirement for the proposed new storage facility with four different scopes: as originally proposed (with updated costs estimate), excluding the conveyor system and the dome (as proposed in the Amended Petition), adding only the conveyor system, and adding only the dome.

Table 4: Levelized Annual Revenue Requirement

(1)	(2)	(3)	(4)
Revised Cost Original Scope	Reduced Scope	Reduced Scope with Conveyor System	Reduced Scope with Dome
\$3,622,604	\$2,602,507	\$3,066,032	\$3,089,770

PSC’s Decision

- Commissioners approved staff recommendation supporting TECO’s Amended Petition (Option 2 above).

Basis for Decision

- The construction and operation of the new gypsum storage facility satisfies statutory requirements specified in Section 366.8255, F.S., and meets the ECRC cost recovery criteria.
- It is an essential environmental project being constructed due to government-imposed environmental regulations that require TECO to scrub the flue gasses emanating from its BB coal-fired units.

- TECO amended its original proposal to further address the Commission’s cost concerns, providing more economical and feasible alternatives for construction of the gypsum storage facility.
- The Commission determined that the proposed storage facility is the most reliable alternative for TECO to remain in compliance with the applicable environmental mandates at BB Station, given that the company isn’t recovering costs through another cost recovery mechanism or through base rates.
- Project costs will be allocated to rate classes based on an energy basis.

Estimated Residential Monthly Bill Impacts for a 1,000 kWh bill for each of the four different scopes.

Table 5: Customer Bill Impact Comparisons

Year	Residential Rate (\$/1,000 kWh)			
	(1)	(2)	(3)	(4)
	Revised Cost Original Scope	Reduced Scope	Reduced Scope with Dome	Reduced Scope with Conveyor
2014	0.01	0.18	0.22	0.01
2015	0.33	0.14	0.17	0.29
2016	0.30	0.12	0.15	0.26
2017	0.29	0.11	0.14	0.25
2018	0.28	0.10	0.14	0.24