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April 26, 2018

VIA: ELECTRONIC FILING

Ms. Carlotta S. Stauffer
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

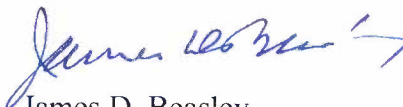
Re: Environmental Cost Recovery Clause
FPSC Docket No. 20180007-EI

Dear Ms. Stauffer:

Attached for filing in the above docket is a Petition of Tampa Electric Company for Approval of a New Environmental Program for Cost Recovery through the Environmental Cost Recovery Clause relating to the company's Big Bend Unit 1 Section 316(b) Impingement Mortality project.

Thank you for your assistance in connection with this matter.

Sincerely,


James D. Beasley

JDB/pp
Attachment

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental Cost)
Recovery Clause)
_____)

DOCKET NO. 20180007

FILED: April 26, 2018

**PETITION OF TAMPA ELECTRIC COMPANY FOR APPROVAL OF
A NEW ENVIRONMENTAL PROGRAM FOR COST RECOVERY
THROUGH THE ENVIRONMENTAL COST RECOVERY CLAUSE**

Tampa Electric Company (“Tampa Electric” or “the company”), by and through its undersigned counsel, and pursuant to Section 366.8255, Florida Statutes, and Florida Public Service Commission (“Commission”) Order Nos. PSC-94-0044-FOF-EI and PSC-94-1207-FOF-EI, hereby petitions the Commission for approval of the company’s proposed environmental compliance program – Big Bend Unit 1 Section 316(b) Impingement Mortality project – such that all prudent costs incurred after the date of this Petition may be recovered through the Environmental Cost Recovery Clause (“ECRC”). In support of its Petition, the company states:

1. Tampa Electric is an investor-owned electric utility subject to the Commission’s jurisdiction pursuant to Chapter 366, Florida Statutes. Tampa Electric serves retail customers in Hillsborough and portions of Polk, Pinellas and Pasco Counties in Florida. The company’s principal offices are located at 702 North Franklin Street, Tampa Florida 33602.

2. The persons to whom all notices and other documents should be send in connection with this docket are:

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3. In August 2014 the Environmental Protection Agency (“EPA”) published their final rule regarding Section 316(b) of the Clean Water Act. The rule became effective in October 2014. The rule establishes requirements for cooling water intake structures (“CWIS”) at existing facilities. Section 316(b) requires that the location, design, construction and capacity of CWIS reflect the best technology available (“BTA”) for minimizing adverse environmental impacts.

4. The rule addresses impacts to aquatic life resulting from operation of cooling water systems in the U.S. from either impingement or entrainment. Impingement mortality occurs when fish and shellfish are pinned against the intake system screens and unable to get free. Entrainment mortality occurs when small fish, eggs, and larvae pass through the protective screens and into the cooling system. The rule allows for seven different approaches to impingement mortality reduction at affected facilities, each of which, if it meets the goals defined for the approach by the rule, would be considered fully compliant. These approaches are

- a. closed-cycle cooling tower;
- b. 0.5 feet per second (“fps”) through-screen design velocity;
- c. 0.5 fps through-screen actual velocity;
- d. existing offshore velocity cap;
- e. modified traveling screens;
- f. system of technologies as the BTA for impingement mortality; and,

- g. meet impingement mortality performance standard.

5. For entrainment compliance, the rule requires the evaluation of closed-cycle cooling, alternative water supplies, and fine mesh screens in terms of feasibility, cost, and effectiveness for a site-specific determination by the Florida Department of Environmental Protection (“FDEP”) Director. With respect to Big Bend Station, the FDEP Director will make this determination by reviewing the following study elements which are required to be submitted with the National Pollutant Discharge Elimination System (“NPDES”) permit renewal application. These elements are:

- a. 40 CFR 122.21(r)(2), Source Water Physical Data;
- b. 40 CFR 122.21(r)(3), Cooling Water Intake Structure Data;
- c. 40 CFR 122.21(r)(4), Baseline Biological Characterization;
- d. 40 CFR 122.21(r)(5), Cooling Water System Data;
- e. 40 CFR 122.21(r)(6), Chosen Method of Compliance with Impingement Mortality Standard;
- f. 40 CFR 122.21(r)(7) Entrainment Performance Studies; and,
- g. 40 CFR 122.21(r)(8) Operational Status.
- h. 40 CFR 122.21(r)(9), Entrainment Characterization Study;
- i. 40 CFR 122.21(r)(10), Feasibility and Cost Study;
- j. 40 CFR 122.21(r)(11), Benefits Valuation Study;
- k. 40 CFR 122.21(r)(12) Environmental and Other Impacts; and,
- l. 40 CFR 122.21(r)(13) Peer Review of (r)(10), (r)(11), and (r)(12).

6. Tampa Electric continues to perform the required studies under its previously approved Clean Water Act Section 316(b) Phase II Study ECRC project.

7. As stated above, compliance with Section 316(b) is tied to the renewal of the NPDES permit for the facility; however, the rule included a provision to allow a request for an alternative schedule for those facilities that had permit renewal dates within 45 months of the finalization of the rule. Big Bend Station requested such an alternative schedule to allow time to complete the study elements. Within six months of the finalization of the company's Big Bend Station NPDES permit, which is currently undergoing renewal by the FDEP, Tampa Electric will submit a plan of study which will be used by FDEP to establish the impingement and entrainment compliance schedule. However, the modernization of Big Bend Unit 1 to a highly efficient, natural gas-fired unit (the "Big Bend Unit 1 Modernization") requires NPDES permit modifications, and FDEP has agreed that it is appropriate to address impingement mortality in conjunction with the Big Bend Unit 1 Modernization. In addition, complying with the rule requirements now will benefit customers because integrating the impingement mortality equipment into the Big Bend Unit 1 Modernization project planning, design, and construction work will be more efficient than retrofitting the unit with the impingement mortality compliance equipment at a later date due to the significant additional outage time that would be needed to perform the modifications later.

8. This petition applies to impingement mortality requirements of Section 316(b) for the CWIS currently shared by Big Bend Units 1 and 2. If the company's Clean Water Act Section 316(b) Phase II Study results indicate that additional changes are needed to meet entrainment mortality requirements, this new system will accommodate installation of fine mesh screens, and cost recovery for such work would be addressed in a separate request. In addition, impingement and entrainment mortality compliance for Big Bend Units 3 and 4 will need to be

addressed at a later date based on the results of the studies the company is performing under its Clean Water Act Section 316(b) Phase II Study ECRC project and the NPDES permit renewal.

9. In order to comply with Rule 316(b) and its NPDES permit, Tampa Electric must make modifications to its existing CWIS shared by Big Bend Units 1 and 2 for purposes of withdrawing once-through cooling water from Tampa Bay. Each unit is currently equipped with two 50 percent cooling water pumps which have dedicated traveling screens to protect the pumps against entrainment of debris. This intake structure will be modified to operate with the modernized Big Bend Unit 1, and new dual flow traveling screens as well as a fish collection and return system will be installed to comply with the impingement mortality requirements of Section 316(b). The new system will allow aquatic life impinged on the screens to be safely returned to a suitable location. The screens will be designed with the ability to retrofit fine mesh panels, which will accommodate potential future requirements of the entrainment mortality portion of Section 316(b).

10. The company hired an engineering firm to conduct studies to evaluate Section 316(b) impingement mortality compliance and has identified the modified traveling screens with fish return as the most cost-effective solution to continue operating Big Bend Unit 1 in compliance with Section 316(b). The selected solution complies with option (e) in Paragraph 4 above.

11. Engineering work for the Big Bend Unit 1 Section 316(b) Impingement Mortality project will begin mid-year in 2018 to support equipment procurement and a construction start date early in 2021 when Big Bend Units 1 and 2 will be shut down for the modernization project work. The Big Bend Unit 1 Section 316(b) Impingement Mortality project will be completed prior to commercial operation of the Big Bend Unit 1 Modernization in January 2023. The total

estimated cost of the project is \$15.5 million. The following table reflects a breakdown of the project components and their projected costs.

Big Bend Unit 1 Section 316(b) Impingement Mortality Project

	2018 (\$000)	2019 (\$000)	2020 (\$000)	2021 (\$000)	2022 (\$000)	2023 (\$000)	Total (\$000)
Capital							
Engineering	1,500	-	-	-	-	-	1,500
Equipment	325	3,000	500	-	-	-	3,825
Construction	-	-	-	500	7,750	250	8,500
Owners Costs	500		500	500	-	-	1,500
Demolition / Retirement	-	-	-	-	170	-	170
<i>Total</i>	2,325	3,000	1,000	1,000	7,920	250	15,495
In-Service Annual O&M¹							
Variable O&M	-	-	-	-	-	67	
Operating Labor	-	-	-	-	-	25	
Maintenance Material	-	-	-	-	-	99	
Maintenance Labor	-	-	-	-	-	65	
<i>Total</i>	-	-	-	-	-	256	

¹ Estimated annual O&M expense after commercial in-service date, in 2023 dollars.

12. Tampa Electric will follow its usual prudent and practical procurement policies, including competitive bidding for project components, to ensure it purchases equipment and services at the best prices available.

13. The Commission’s policy for initial cost recovery approval of an ECRC eligible project is set forth in Order No. PSC-94-0044-FOF-EI issued January 12, 1994 in Docket No. 930613-EI, In re: Gulf Power Company, (the Gulf Order) as follows:

Upon petition, we shall allow the recovery of costs associated with an environmental compliance activity through the environmental cost recovery factor if:

1. such costs were prudently incurred after April 13, 1993;
2. the activity is legally required to comply with a governmentally imposed environmental regulation enacted, became effective, or

whose effect was triggered after the company's last year upon which rates are based; and,

3. such costs are not recovered through some other cost recovery mechanism or through base rates.

14. The Commission has interpreted the Gulf Order criteria to require that projects eligible for ECRC cost recovery must be required to comply with, or remain in compliance with, a governmentally imposed environmental regulation. (See, e.g., Order No. PSC-11-0080-PAA-EI, issued January 31, 2011 in Docket No. 100404-EI).

15. In a 1999 Gulf Power decision in Docket No. 990677-EI the Commission approved a Gulf Power sodium injection project for ECRC cost recovery, observing:

...we approved the project both to comply with new Clean Air Act Amendments (CAAA) Phase II requirements and to maintain compliance with existing permit requirements. . . . (Emphasis supplied)

16. In Order No. 11-0080, referred to above, the Commission observed:

. . .In Docket No. 980007-EI, In re: Environmental Cost Recovery clause, we approved Gulf's additional ground water monitoring equipment to continue to comply with an existing environmental requirement, because greater treatment capacity was needed. (Emphasis supplied)

17. The Commission went on in Order No. 11-0080 to refer to its prior approval of a turtle net project for FPL, noting that:

These additional activities were not specifically required by . . . [the NRC license]. . . FPL explained that they were necessary to insure that the net worked properly so it could continue to comply with its NRC license. . . . (Emphasis supplied)

18. The Commission further noted in Order No. 11-0080 that it had approved a modular cooling tower project for Progress Energy Florida ("PEF") in order to allow PEF to continue compliance with wastewater discharge standards required by the Florida Department of

Environmental Protection. The Commission noted that increased inlet water temperatures from the Gulf during the summers of 2001 and 2005 forced PEF to reduce the output of its plants in order to remain in compliance with its discharge permit. The Commission observed that the modular cooling towers along the discharge canal provided additional cooling capacity that allowed PEF to comply with its permit and avoid numerous, expensive derates of its base load generating units.

19. Tampa Electric cannot continue operating Big Bend Unit 1 in compliance with Section 316(b) without making the CWIS modifications described in this petition. Section 316(b) compliance requires these modifications regardless of whether Big Bend Unit 1 is modernized to a natural gas-fired unit or continues to operate as coal-fired.

20. The proposed CWIS modifications merit ECRC cost recovery under the Gulf Order criteria. All costs associated with the project will be prudently incurred after April 13, 1993. The CWIS modifications to Big Bend Unit 1 are required in order for Tampa Electric to continue complying with the requirements of Section 316(b) and its NPDES permit. The need to construct CWIS modifications has been triggered after the company's last test year upon which rates are currently based. Finally, the costs of the proposed CWIS modifications are not recovered through some other cost recovery mechanism or through base rates. Like the Gulf Power ECRC project approved in Docket No. 980007-EI, the proposed CWIS modifications are needed in order to enable Tampa Electric to continue complying with the applicable environmental mandates.

21. Tampa Electric expects to begin incurring 316(b) impingement mortality compliance costs associated with the proposed CWIS modifications for Big Bend Unit 1 in 2018. Project costs will be subject to audit by the Commission.

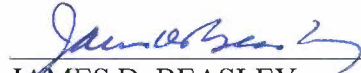
22. The project capital expenditures should be allocated to rate classes on a demand basis, and operation and maintenance expenses should be allocated to rate classes on an energy basis.

23. Tampa Electric is not aware of any disputed issues of material fact relative to the matters set forth in this petition.

WHEREFORE, Tampa Electric Company respectfully the Commission to approve the company's proposed Big Bend Unit 1 Section 316(b) Impingement Mortality program and the company's recovery of the carrying costs and operation and maintenance expenses of this program through the ECRC in the manner described herein.

DATED this 26th day of April, 2018.

Respectfully submitted,



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