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July 12, 2021

VIA: ELECTRONIC FILING

Mr. Adam J. Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Petition for approval of new environmental program for cost recovery through Environmental Cost Recovery Clause, by Tampa Electric Company
Dkt.: 20210087-EI

Dear Mr. Teitzman:

Attached for filing in the above docket is Tampa Electric Company's Response to Staff's Second Data Request (Nos. 1-3), propounded on June 22, 2021.

Thank you for your assistance in connection with this matter.

Sincerely,

Malcolm N. Means

MNM/bmp
Attachment

cc: All Parties of Record (w/attachment)
Jeff Doehling (jdoehlin@psc.state.fl.us)

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing responses of Tampa Electric Company to Staff's 2nd Data Request (Nos. 1-3), have been furnished by electronic mail on this 12th day of July 2021 to the following:

Ashley Weisenfeld
Attorney
Office of General Counsel
Florida Public Service Commission
Room 390L – Gerald L. Gunter Building
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850
aweisenfeld@psc.state.fl.us

Malcolm N. Means

ATTORNEY

TAMPA ELECTRIC COMPANY
DOCKET NO. 20210087-EI
STAFF'S SECOND DATA REQUEST
REQUEST NO. 1
BATES PAGES: 1-2
FILED: JULY 12, 2021

1. Please refer to TECO's response to Staff's First Data Request, No. 4b. Please provide the estimated total capital cost, annual operation and maintenance (O&M) cost, service life, and explain the feasibility of each alternative impingement mortality compliance method. If cost estimates were not determined, please explain why. As part of your response, please complete the table included as Attachment A.

A. Based on the data provided in the ECT Clean Water Act Section 316(b), Evaluation to Support 40 CFR 122.21(r), as shown in the table below, Tampa Electric concluded that there were two viable options for impingement and entrainment mortality best technology available ("IM BTA") measures at Bayside: expansion of the intakes to achieve intake velocities less than 0.5 feet per second ("FPS") and installation of modified traveling water screens ("TWS") and a fish return. Since the other alternatives were rejected as infeasible, detailed costs were not included in the submittal.

Impingement and Entrainment Mortality Compliance Alternatives					
40 CFR 125.94(c)	**Method**	**Capital Cost ($000)**	**Annual O&M ($000)**	**Service Life (years)**	**Feasibility**
(1)	Closed-cycle recirculating system	N/A	N/A	N/A	Rejected. Costs prohibitive given fully compliant alternative for IM BTA. EPA did not intend the rule to force closed cycle recirculating system retrofit to address IM BTA alone: "As stated in the June 11, 2012, Notice of Data Availability ("NODA"), EPA does not intend for facilities to install closed-cycle cooling solely for the purpose of meeting the IM requirements. In fact, EPA expects all facilities could comply with IM requirements without relying on retrofitting to closed-cycle cooling."
(2)	0.5 FPS Through-Screen Design Velocity	$51.92 M	$1.31 M	20 years	Rejected Capital and operation/ maintenance costs roughly twice as high as alternative. Permitting of construction associated with waterways impact would be extremely challenging. Simpler and less costly alternative for Fine Mesh Screen ("FMS") is available should that be determined to be entrainment BTA.
(3)	0.5 FPS Through-Screen Actual Velocity	N/A	N/A	N/A	Rejected. Bayside must be able to pump its full design intake flow at times to generate its full power output. See previous for IM BTA measure (2).

(4)	Existing offshore velocity cap	N/A	N/A	N/A	Rejected. Lack of suitable location to address rule requirements. Costs and potential impacts to intake canal entry for routine maintenance. Not installed prior to 2014
(5)	Modified traveling screens	$22.1 M*	$1.303 M*	20 years	Selected. Relative capital and operation costs lower than IM BTA measure (2). Reduced complexity of compliance demonstration relative to IM BTA measure (6). Reduced regulatory risk relative to IM BTA measures (6) and (7).
(6)	System of technologies	N/A	N/A	N/A	Rejected. Regulatory agency approval could not be obtained until after implementation and demonstration that reductions are achieved relative to IM BTA measures (2) and (5). Does not facilitate potential installation of FMS.
(7)	Impingement mortality performance standard	N/A	N/A	N/A	Rejected. Regulatory agency approval could not be obtained prior to implementation. Preamble to rule acknowledges few, if any, facilities likely to pursue this alternative due to risk that the standard is not consistently achieved and more favorable alternatives.

*Estimated Impingement Mortality Project capital expenditures and O&M in 2017 dollars were $7.12 million, and $321 thousand, respectively.

2. Please refer to Paragraph 8 of the petition and TECO's response to Staff's First Data Request, No. 4c. Please explain why it is prudent for TECO to complete the Impingement Mortality Project, when additional changes might be needed to comply with entrainment mortality standards. As part of your response, please explain the potential for duplicative work.

A. Moving forward with the Bayside Section 316(b) compliance impingement mortality reduction measure, the installation of modified traveling water screens, allows Tampa Electric to take advantage of existing, planned outage periods for construction along with lower costs for labor, materials, and equipment. For the Section 316(b) entrainment compliance measure, the conceptual design involves the extension of the cooling water intake structure to accommodate FMS that would operate ahead of the modified traveling water screens. The FMS could subsequently be installed, with minimal disruption, to the operation of the existing screens installed as a part of the Impingement Mortality Project with no duplicative work.

3. Please refer to TECO's response to Staff's First Data Request, No. 7b. Please identify the similar 316(b) project used to estimate costs.

A. The similar project, referenced in Tampa Electric's response to Staff's First Data Request, No. 7(b) is Tampa Electric's Big Bend Unit 1 Section 316(b) Impingement Mortality Project approved by Commission Order No. PSC-2018-0594-FOF-EI, on December 20, 2018.