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September 1, 2021

VIA: ELECTRONIC FILING

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

Re: Docket 20210034-EI, Petition for Rate Increase by Tampa Electric Company

Dear Mr. Teitzman:

Attached for filing in the above docket is Tampa Electric Company's Response to Staff's Fourth Data Request (No. 1-12), propounded on August 25, 2021.

Thank you for your assistance in connection with this matter.

Sincerely,

Malcolm N. Means

Malcolm N. Means

MNM/ne
Attachment

cc: All parties of record

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Tampa Electric Company's responses to Staff's Fourth Data Request (No. 1-12), have been furnished by electronic mail on this 1st day of September 2021 to the following:

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ATTORNEY

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STAFF'S FOURTH DATA REQUEST
REQUEST NO. 1
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1. Please refer to the direct testimony of Jose Aponte, page 12, lines 6 through 20. Please describe the forecast methodology underlying TECO's Future Solar forecast, including how the Company's demand energy, fuel price, and emissions costs/prices were utilized in TECO's cost effectiveness calculations.

A. The methodology for evaluating cost-effectiveness is based on whether or not the projects would lower the company's projected system cumulative present value revenue requirement ("CPVRR") as compared to a CPVRR without the solar projects. As part of the analyses, Tampa Electric modeled the annual revenue requirement associated with operating our system over a 30-year period with and without the proposed additions and used those annual amounts to calculate the CPVRR with and without the proposed additions. The 600 MW of Future Solar generation is favorable for customers by $122.2 million before including any value for reduced emissions.

The company performed these analyses using our Integrated Resource Planning models to prepare a base case scenario without the Future Solar. Subsequently, change case scenarios were prepared for the 600 MW in total, for each annual tranche in total, and for each individual project.

The cost effectiveness calculations were performed using the same demand, energy and fuel price forecasts used to prepare Tampa Electric's 2020 cost recovery factors and its 2020 Ten Year Site Plan. These forecasts were used in the production cost modeling software to determine system CPVRR, including fuel costs and variable O&M costs for each scenario. The CPVRR associated with each change case was then subtracted from the CPVRR of the base case to determine the savings. This technique is widely used by electric utilities during the development of integrated resource plans to evaluate whether to make additions to the generating portfolio.

2. Please refer to the direct testimony of Jose Aponte, page 12, lines 6 through 20. Please list all FPSC filings in which TECO presented the same demand energy, fuel price, and emissions costs/prices forecasts that were utilized in TECO's Future Solar cost effectiveness analysis and explain how they were used in those dockets or otherwise by the Commission.

A. The demand, energy, and fuel price forecasts are updated each summer and are used to prepare the company's annual filings for the clause cost recovery factors. These forecasts are used for all other generation planning analyses including the following year's Ten-Year Site Plan ("TYSP"). Once the TYSP is filed, the process of preparing the updated demand, energy, and fuel price forecasts begins again. This process assures analyses are being conducted with up-to-date and consistent inputs. Tampa Electric presented the same demand, energy, fuel price, and emissions costs and price forecasts that were utilized in Tampa Electric's Future Solar cost effectiveness in the following dockets:

2020 Undocketed filings: 2020 Ten Year Site Plan

Docket 20200112-EQ: Petition for approval of revisions to standard offer contract and rate schedule COG-2

Docket 20190001-EI: Fuel and Capacity Cost Recovery Clause 2020 Factors and 2020 Generating Performance Incentive Factor ("GPIF")

Docket 201900007-EI: Environmental Cost Recovery Clause ("ECRC") 2020 factors

Docket 20190002-EI: Energy Conservation Cost Recovery Clause ("ECCR") 2020 factors

Docket 20190136-EI: Petition for a limited proceeding to approve third SoBRA

The filings listed above used the same demand, energy, fuel price and emissions cost/price forecasts for its annual projection filings to determine the projected costs and revenues for the projected 2020 rates and used for long-term planning

3. Please list all FPSC dockets which were open after August 2020 in which TECO filed demand energy, fuel price, and emissions costs/prices forecasts which were different from the forecasts utilized in TECO's Future Solar cost effectiveness analysis. Explain in each instance, if any, why a different forecast was used and how those forecasts differed from those in the instant case.

A. The demand, energy, and fuel price forecasts are updated each summer and are used to prepare the company's annual filings for the clause cost recovery factors. These forecasts are used for all other generation planning analyses including the following year's Ten-Year Site Plan ("TYSP"). Once the TYSP is filed, the process of preparing the updated demand, energy, and fuel price forecasts begins again. This process assures analyses are being conducted with up-to-date and consistent inputs. Tampa Electric did not open any new dockets after August 2020 that used different demand, energy, fuel price, and emissions cost and prices forecast; however, Tampa Electric did submit filings in the dockets below that used different demand, energy, fuel price, and emissions cost and price forecasts. The exception to this is Docket 20200234-EI, listed below:

2021 Undocketed filing: 2021 Ten Year Site Plan

Docket 20200001-EI: Fuel and Capacity Cost Recovery Clause 2021 factors and 2021 GPIF

Docket 20200007-EI: ECRC 2021 factors

Docket 20200002-EI: ECCR 2021 factors

Docket 20200234-EI: Petition for approval of direct current microgrid pilot program and for variance from or waiver of Rule 25-6.065, F.A.C

Docket 20210010-EI: Storm Protection Plan ("SPP") Cost Recovery Clause 2022 factors

Docket 20210001-EI: Fuel and Capacity Cost Recovery Clause 2021 Mid-Course, 2022 factors, and 2022 GPIF

Docket 20210007-EI: ECRC 2022 factors

Docket 20210002-EI: ECCR 2022 factors

The filings listed above used different demand, energy, fuel price, and emissions cost and price forecasts for its annual projection filings to determine the projected costs and revenues for the projected 2021, fuel and capacity mid-course 2021, projected 2022 clause rates, and used for long-term planning.

4. Please refer to the direct testimony of Brent Caldwell, page 16, lines 4 through 16. Please briefly describe the forecast methodology underlying TECO's Big Bend Modernization forecast, including how the Company's demand energy, fuel price, and emissions costs/prices forecasts were utilized to determine cost effectiveness.

A. The methodology for evaluating cost-effectiveness is based on whether or not the project would lower the company's projected system cumulative present value revenue requirement ("CPVRR") as compared to a CPVRR without the Big Bend Modernization project. As part of the analyses, Tampa Electric modeled the annual revenue requirement associated with operating our system over a 30-year period with and without the proposed additions and used those annual amounts to calculate the CPVRR with and without the proposed addition. The Big Bend Modernization project is favorable for customers by $747 million before including any value for reduced emissions.

The company performed these analyses using our Integrated Resource Planning models to prepare a base case scenario without the modernization of Big Bend Unit 1. Subsequently, the change case scenario was prepared with the modernization of Big Bend Unit 1.

The cost effectiveness calculations were performed using the same demand, energy, and fuel price forecasts used to prepare Tampa Electric's 2018 cost recovery factors and its 2018 Ten Year Site Plan. These forecasts were used in the production cost modeling software to determine system CPVRR, including fuel costs and variable O&M costs for each scenario. The CPVRR associated with the change case was then subtracted from the CPVRR of the base case to determine the benefits to customers.

5. Please refer to the direct testimony of Brent Caldwell, page 16, lines 4 through 16. In determining revenue requirement comparisons between options:

a. Why did the Company rely upon inputs (forecasts) from four years ago in its analysis in the instant case?

b. How much have those inputs changed since 2017?

c. What is the likely impact of using data which have changed in the interim?

A. a. The Big Bend Modernization project will take approximately 42 months to complete. Since projects this large take years to complete, the company needed to make decisions and purchases to facilitate an in-service date of December 2022. In 2016, the company began looking at options available at the Big Bend Station site to identify and select the best alternative. The company used the best available forecasts and assumptions at that time to determine the benefit to customers; this occurred in late 2017. Approvals for the project were completed in 2018 to meet the in-service date.

b. Inputs are routinely updated each year in the summer for the annual projection filings in the clause dockets. Additionally, please see Tampa Electric's response to Staff's Fourth Data Request No. 11, below.

c. The likely impact of using data that has changed in the interim is that the results would show a greater benefit to Tampa Electric's customers. Since the decision was made, coal prices have gone up, and gas prices have gone down, making the conversion to a more efficient natural gas combined cycle a better resource for customers. Additionally, due to the rising costs of materials, the ability to avoid the costs to continue to maintain Big Bend Units 1 and 2 would be a greater benefit than originally anticipated.

6. Please refer to the direct testimony of Brent Caldwell, page 16, lines 4 through 16. Please list all FPSC filings in which TECO presented the same demand energy, fuel price, and emissions costs/prices forecasts that were utilized in TECO's Big Bend Modernization cost effectiveness analysis and explain how they were used in dockets or otherwise by the Commission.

A. Tampa Electric presented the same demand, energy, fuel price, and emissions costs and price forecasts that were utilized in Tampa Electric's Big Bend Modernization cost effectiveness in the following dockets:

Undocketed: 2018 Ten Year Site Plan

Docket 20180082-EQ: Petition for approval of revisions to standard offer contract and rate schedule COG-2

Docket 20170001-EI: Fuel and Capacity Cost Recovery Clause 2018 factors and 2018 GPIF

Docket 20170007-EI: ECRC 2018 factors

Docket 20170002-EI: ECCR 2018 factors

Docket 20170260-EI: Petition for limited proceeding to approve first solar base rate adjustment (SoBRA), effective September 1, 2018

The filings listed above used the same demand, energy, fuel price, and emissions cost and price forecasts for its annual projection filings to determine the projected costs and revenues for the projected 2018 rates and used for long-term planning. used for long-term planning.

7. Please list all FPSC dockets which were open after August 2020 in which TECO filed demand and energy, fuel price, emissions costs/prices forecasts which were different from the forecasts utilized in TECO's Big Bend Modernization cost effectiveness analysis. Explain in each instance, if any, why a different was used and how those forecasts differed from those in the instant case.

A. Please see Tampa Electric's response to Staff's Fourth Data Request No. 3, above and Data Request No. 10, below.

8. Please refer to the direct testimony of Brent Caldwell, page 34, lines 16 through 22. Please briefly describe the forecast methodology underlying TECO's forecast for the early retirement of Big Bend Unit 3, including how the Company's demand and energy, fuel price, emissions costs/prices forecasts were utilized.

A. The methodology for evaluating cost-effectiveness is based on whether or not the early retirement date would lower the company's projected system cumulative present value revenue requirement ("CPVRR") as compared to CPVRR with the unit in-service until its original end of life. As part of the analyses, Tampa Electric modeled the annual revenue requirement associated with operating our system over a 30-year period with and without the proposed early retirement and used those annual amounts to calculate the CPVRR with and without the proposed early retirement. The Big Bend Unit 3 early retirement is favorable for customers by $299 million before including any value for reduced emissions.

The company performed these analyses using our Integrated Resource Planning models to prepare a base case scenario with Big Bend Unit 3 in-service until original end of life. Subsequently, the change case scenario was prepared with the early retirement of Big Bend Unit 3.

The cost effectiveness calculations were performed using the same demand, energy, and fuel price forecasts used to prepare Tampa Electric's 2021 cost recovery factors and its 2021 Ten Year Site Plan. These forecasts were used in the production cost modeling software to determine system CPVRR, including fuel costs and variable O&M costs for each scenario. The CPVRR associated with the change case was then subtracted from the CPVRR of the base case to determine the benefits to customers.

9. Please refer to the direct testimony of Brent Caldwell, page 34, lines 16 through 22. Please list all FPSC filings in which TECO presented the same demand and energy, fuel price, emissions costs/prices forecasts that were utilized in TECO's cost effectiveness analysis for the early retirement of Big Bend Unit 3 and explain how they were used in dockets or otherwise by the Commission

A. Tampa Electric presented the same demand, energy, fuel price, and emissions costs and price forecasts that were utilized in Tampa Electric's cost effectiveness analysis for the early retirement of Big Bend Unit 3 in the following dockets:

2021 Undocketed filing: 2021 Ten Year Site Plan

Docket 20210063-EQ: Petition for approval of revisions to standard offer contract and rate schedule COG-2

Docket 20200001-EI: Fuel and Capacity Cost Recovery Clause 2021 factors and 2021 GPIF

Docket 20200007-EI: ECRC 2021 factors

Docket 20200002-EI: ECCR 2021 factors

Docket 20200067-EI: SPP 2021 factors

Docket 20200064-EI: Petition for a limited proceeding to approve fourth SoBRA

The filings listed above used the same demand, energy, fuel price, and emissions cost and price forecasts for its annual projection filings to determine the projected costs and revenues for the projected 2021 rates and to determine the expansion plan.

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10. What is the developmental schedule for each updated and/or scheduled TECO demand and energy, fuel price, emissions costs/prices forecasts subsequent to the forecasts filed in this proceeding?

A. The demand, energy, and fuel price forecasts are updated each summer and are used to prepare the company's annual filings for the clause cost recovery factors. These forecasts are used for all other generation planning analyses including the following year's Ten-Year Site Plan ("TYSP"). Once the TYSP is filed, the process of preparing the updated demand, energy, and fuel price forecasts begins again. This process assures analyses are being conducted with up-to-date and consistent inputs.

Occasionally, these forecasts are also updated when Tampa Electric determines that a mid-course correction to fuel cost recovery or capacity cost recovery factors is necessary under Rule 25-6.0424 of the Florida Administrative Code.

With respect to emission cost forecasts, those forecasts are purchased occasionally from an independent, industry-recognized vendor and are updated when a material change is expected, and an analysis requires the forecast information.

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11. Please provide the forecasts that were used by TECO for all FPSC dockets which were open after August 2020 in which TECO filed demand and energy, fuel price, and emission costs/prices forecasts which were different from the forecasts utilized in TECO's cost effectiveness analysis for the early retirement of Big Bend Unit 3.

A Tampa Electric submitted filings that used different demand, energy, fuel price, and emissions cost and price forecasts in the same dockets as listed in the company's response to Staff's Fourth Data Request No. 3 and MS Excel file entitled "(BS 13) Staff's 4th Set of DRs No. 11-CONF.xlsx".

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12. Please provide the forecasts that were used by TECO for all FPSC dockets which were open after August 2020 in which TECO filed demand and energy, fuel price, and emission costs/prices forecasts which were different from the forecasts utilized in TECO's Big Bend Modernization cost effectiveness analysis.

A. Please see Tampa Electric's response to Staff's Fourth Data Request Nos. 3 and 10, above, as well as Data Request No. 11 with MS Excel file entitled "(BS 13) Staff's 4th Set of DRs No. 11_CONF.xlsx".