



July 2, 2024

ELECTRONIC FILING

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

In re: Petition for Rate Increase by Tampa Electric Company

DOCKET NO. 20240026-EI

In re: Petition for approval of 2023 Depreciation and
Dismantlement Study, by Tampa Electric Company

DOCKET NO. 20230139-EI

In re: Petition to implement 2024 Generation Base Rate
Adjustment provisions in Paragraph 4 of the 2021 Stipulation
and Settlement Agreement, by Tampa Electric Company

DOCKET NO. 20230090-EI

Dear Mr. Teitzman:

Attached for filing on behalf of Tampa Electric Company in the above-referenced docket is the Rebuttal Testimony of John Heisey and Exhibit No. JH-2.

Thank you for your assistance in connection with this matter.

(Document 11 of 14)

Sincerely,

J. Jeffry Wahlen

cc: All parties

JJW/ne
Attachment



TECO[®]
TAMPA ELECTRIC
AN EMERA COMPANY

**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

DOCKET NO. 20240026-EI

**PETITION FOR RATE INCREASE
BY TAMPA ELECTRIC COMPANY**

**REBUTTAL TESTIMONY AND EXHIBIT
OF
JOHN HEISEY**

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY

OF

JOHN HEISEY

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2
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4
5
6 Q. Please state your name, address, occupation and employer.

7
8 A. My name is John Heisey. My business address is 702 North
9 Franklin Street, Tampa, Florida 33602. I am employed by
10 Tampa Electric Company ("Tampa Electric" or the
11 "company") as Director Origination and Trading.

12
13 Q. Are you the same John Heisey who filed direct testimony
14 in this proceeding?

15
16 A. Yes.

17
18 Q. Have your title and duties and responsibilities changed
19 since the company filed your prepared direct testimony on
20 April 2, 2024?

21
22 A. No.

23
24 Q. What are the purposes of your rebuttal testimony?
25

1 **A.** My rebuttal testimony responds to claims of the Florida
2 Industrial Power Users Group witness Jonathan Ly that the
3 net present value benefits that would be achieved by the
4 Future Solar Projects are based upon an inaccurate fuel
5 price forecast.

6
7 **Q.** Have you prepared an exhibit supporting your rebuttal
8 testimony?

9
10 **A.** Yes. Rebuttal Exhibit No. JH-2, entitled "Rebuttal
11 Exhibit of John Heisey," was prepared by me or under my
12 direction and supervision. The contents of this rebuttal
13 exhibit were derived from the business records of the
14 company and are true and correct to the best of my
15 information and belief. My rebuttal exhibit consists of
16 the following three documents:

- 17
18 Document No. 1 Average Natural Gas Forecast at Henry
19 Hub
20 Document No. 2 LNG Export Growth
21 Document No. 3 Data Center Growth

22
23 **I. NATURAL GAS FORECASTS**

24 **Q.** Mr. Ly asserts that the net present value benefits claimed
25 by the company to be achieved by the Future Solar Projects

1 are based upon, in part, inflated natural gas prices. Do
2 you agree with this assertion?

3

4 **A.** No. Tampa Electric's fuel forecasting process is
5 reasonable and uses public (NYMEX, EIA) and private (S&P
6 Global) data that are widely recognized in the industry.
7 The reasonableness of Tampa Electric's forecasting
8 process is best illustrated by its consistency with the
9 EIA Reference case forecast, which is acknowledged across
10 the industry as a benchmark forecast.

11

12 **Q.** Describe how the company forecasts natural gas prices.

13

14 **A.** Tampa Electric's fuel forecast methodology uses market
15 indicators and public and private fuel forecasts to
16 produce a 30-year fuel forecast for all energy
17 commodities. The methodology uses the NYMEX to estimate
18 near-term prices (one to five years), a private forecast
19 from S&P Global for mid-term prices (six to 20 years),
20 and a public forecast from the EIA to produce the last 10
21 years of the 30-year forecast, specifically for natural
22 gas. The source data is blended to transition between
23 time periods. The resulting fuel price forecasts,
24 including high and low internal fuel forecasts, are
25 compared to independent sources such as NYMEX, EIA, and

1 S&P Global for reasonableness. Tampa Electric has
2 employed a consistent fuel forecasting methodology for
3 the last 15 years.

4
5 **Q.** On page 9 of his testimony, Mr. Ly lists natural gas price
6 futures data. Does Tampa Electric use any of the forecasts
7 listed in Mr. Ly's table?

8
9 **A.** Yes. Tampa Electric uses both the EIA Reference gas
10 forecast and NYMEX Futures prices listed in Mr. Ly's Table
11 2.

12
13 **Q.** How do the forecast prices shown on page 9 of Mr. Ly's
14 testimony compare to Tampa Electric's fuel price
15 forecast?

16
17 **A.** The prices cannot be compared to each other as the EIA
18 Reference or High Oil & Gas Supply forecasts and the NYMEX
19 Futures prices are based on prices at the Henry Hub
20 location, whereas the Tampa Electric base forecast is a
21 dispatch price based on prices at Florida Gas Transmission
22 ("FGT") Zone 3, which trades at a premium to Henry Hub,
23 and also includes variable pipeline expenses like fuel
24 and commodity charges.

25

1 **Q.** Is it possible to make an "apples to apples" comparison
2 between Mr. Ly's data and Tampa Electric's fuel price
3 forecast?
4

5 **A.** Yes. In my Rebuttal Exhibit No. JH-2, Document No. 1, the
6 Average Natural Gas Forecast at Henry Hub compares the
7 Tampa Electric 30-year natural gas forecasts at the Henry
8 Hub to the EIA Reference gas forecast, which reflects the
9 agency's base case assumptions as Mr. Ly states on page
10 9 of his testimony. The comparison is shown for the last
11 five years. For four of the last five years, Tampa
12 Electric's natural gas forecasts have been below the EIA
13 Reference forecast for the 30-year term and most 10-year
14 intervals. In the 2022 Tampa Electric forecast, the first
15 10-year interval moves above the EIA Reference case, and
16 that pattern continues in the 2023 Tampa Electric
17 forecast.
18

19 **Q.** Why are the near and mid-term intervals for the Tampa
20 Electric natural gas forecast starting to move above the
21 EIA Reference Case forecast?
22

23 **A.** As illustrated in Document No. 2 to my rebuttal exhibit,
24 U.S. LNG exports will double over the next five years.
25 This will create competition for domestic gas supply and

1 force higher cost gas production to come online to meet
2 demand, which could result in higher prices. Tampa
3 Electric uses a private forecast from S&P Global for years
4 six to 20, and the uncertainty around LNG exports has
5 driven their forecast higher. Although there is less of
6 an impact in our most recent fuel forecast, there is a
7 considerable amount of uncertainty surrounding Artificial
8 Intelligence and data center demand over the next five to
9 10 years and the fuels necessary to meet that demand. I
10 provide a recent projection of data center demand growth,
11 particularly over the next 10 years, from S&P Global in
12 Document No. 3 of my rebuttal exhibit. Both factors will
13 have a significant impact on natural gas prices over the
14 next five to 10 years and could result in higher natural
15 gas prices. Tampa Electric supports its latest forecast
16 and the consistent methodology that has been in place
17 over the last 15 years.

18
19 **Q.** Are the EIA's Reference natural gas prices consistently
20 overstated, as claimed in Mr. Ly's Exhibit JL-3?

21
22 **A.** No. Based on Exhibit JL-3, the EIA Reference forecast was
23 (1) approximately equal to the actual spot gas price in
24 2017 and 2018, (2) overstated in years 2019, 2020 and
25 2023 and (3) understated in years 2021 and 2022. The EIA

1 Reference forecast in Exhibit JL-3 does not appear to be
2 "consistently" overstating natural gas prices if three
3 years are overstated, two years are understated, and in
4 two years they are approximately equal.

5
6 **Q.** Should Tampa Electric use the EIA High Oil and Gas Supply
7 Scenario to develop its natural gas forecast?

8
9 **A.** No. The EIA, which produces the EIA Reference and High
10 Oil and Gas Supply Scenario natural gas forecast in its
11 Annual Energy Outlook, is a well-respected agency, and
12 the forecasts and other data generated by the agency are
13 widely used across the energy industry. Tampa Electric is
14 confident that the EIA wants its Reference Case natural
15 gas forecast to align with actual prices and will make
16 necessary modeling adjustments to minimize any
17 differences. In 2024, the EIA is not producing the Annual
18 Energy Outlook as it is taking some time to enhance long-
19 term modeling capabilities. Finally, based on the LNG
20 export growth and demand for AI and data centers expected
21 over the next five to 10 years, Tampa Electric does not
22 think it would be prudent to use the most recent EIA High
23 Oil and Gas Supply Scenario natural gas forecast as shown
24 on Mr. Ly's Exhibit JL-2, since it is lower than the
25 lowest EIA Reference Case forecast for the next 10 years

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as shown in Mr. Ly's Exhibit JL-3.

II. SUMMARY

Q. Please summarize your rebuttal testimony.

A. My rebuttal testimony addressed the statements made by witness Jonathan Ly regarding Tampa Electric's fuel price forecast. Tampa Electric stands behind its fuel forecasting methodology as reasonable, consistent, and sound as it relates to the cost effectiveness of Future Solar Projects or any other business needs requiring fuel forecasts. Tampa Electric's natural gas forecast compares well with the EIA Reference case forecast, which is recognized across the industry as a benchmark forecast.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

TAMPA ELECTRIC COMPANY
DOCKET NO. 20240026-EI
WITNESS: HEISEY

REBUTTAL EXHIBIT

OF

JOHN HEISEY

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1	Average Natural Gas Forecast at Henry Hub	11
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Average Natural Gas Forecast at Henry Hub

Tampa Electric Natural Gas Forecast (Nominal \$/MMBtu)

	30 year	Years 1-10	Years 11-20	Years 21-30
2019	\$ 5.65	\$ 3.42	\$ 5.44	\$ 8.10
2020	\$ 4.85	\$ 3.27	\$ 4.86	\$ 6.43
2021	\$ 4.98	\$ 3.35	\$ 4.96	\$ 6.63
2022	\$ 5.38	\$ 4.25	\$ 5.04	\$ 6.84
2023	\$ 6.15	\$ 4.69	\$ 6.35	\$ 7.41

EIA Reference Case (*Nominal \$/MMBtu)

	**30 year	Years 1-10	Years 11-20	Years 21-30
2019	\$ 5.96	\$ 3.94	\$ 5.84	\$ 8.11
2020	\$ 4.90	\$ 3.38	\$ 4.89	\$ 6.43
2021	\$ 5.15	\$ 3.63	\$ 5.18	\$ 6.64
2022	\$ 5.43	\$ 3.92	\$ 5.50	\$ 6.88
2023	\$ 5.65	\$ 3.80	\$ 5.79	\$ 7.37

Forecast Delta in \$/MMBtu (TEC minus EIA)

	30 year	Years 1-10	Years 11-20	Years 21-30
2019	\$ (0.31)	\$ (0.52)	\$ (0.40)	\$ (0.01)
2020	\$ (0.05)	\$ (0.11)	\$ (0.02)	\$ (0.01)
2021	\$ (0.17)	\$ (0.28)	\$ (0.21)	\$ (0.01)
2022	\$ (0.05)	\$ 0.34	\$ (0.47)	\$ (0.04)
2023	\$ 0.50	\$ 0.88	\$ 0.56	\$ 0.05

Forecast Delta in % (TEC minus EIA)

	30 year	Years 1-10	Years 11-20	Years 21-30
2019	-5.5%	-15.2%	-7.4%	-0.1%
2020	-0.9%	-3.3%	-0.5%	-0.1%
2021	-3.4%	-8.5%	-4.3%	-0.2%
2022	-1.0%	7.9%	-9.3%	-0.5%
2023	8.1%	18.8%	8.8%	0.6%

*EIA NG Real values escalated at CPI less energy in all years including a one time adjustment from the base year to the posted year

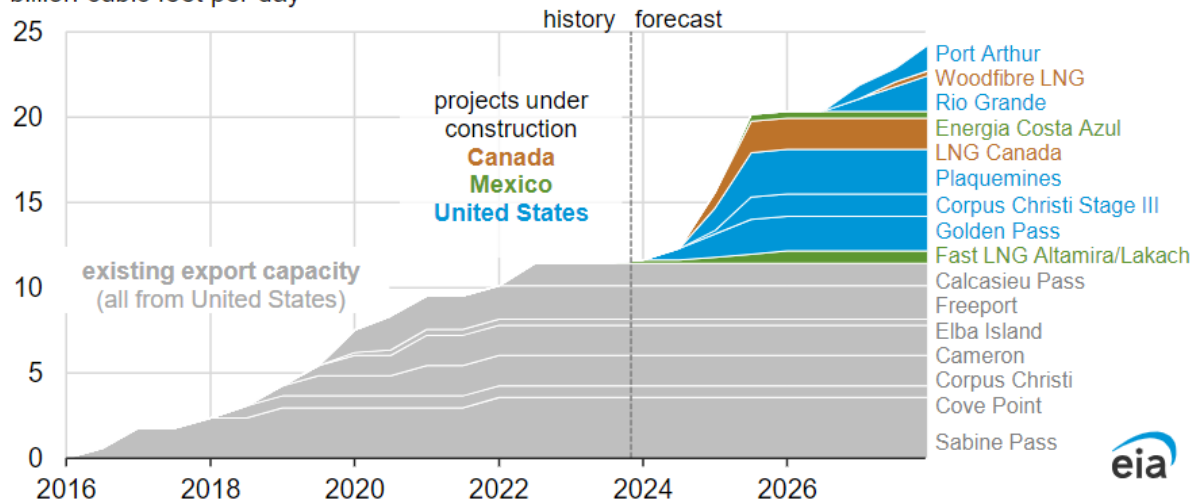
**EIA Reference Case values after 2050 are escalated at the average of the previous 3 years

LNG Export Growth

NOVEMBER 13, 2023

LNG export capacity from North America is likely to more than double through 2027

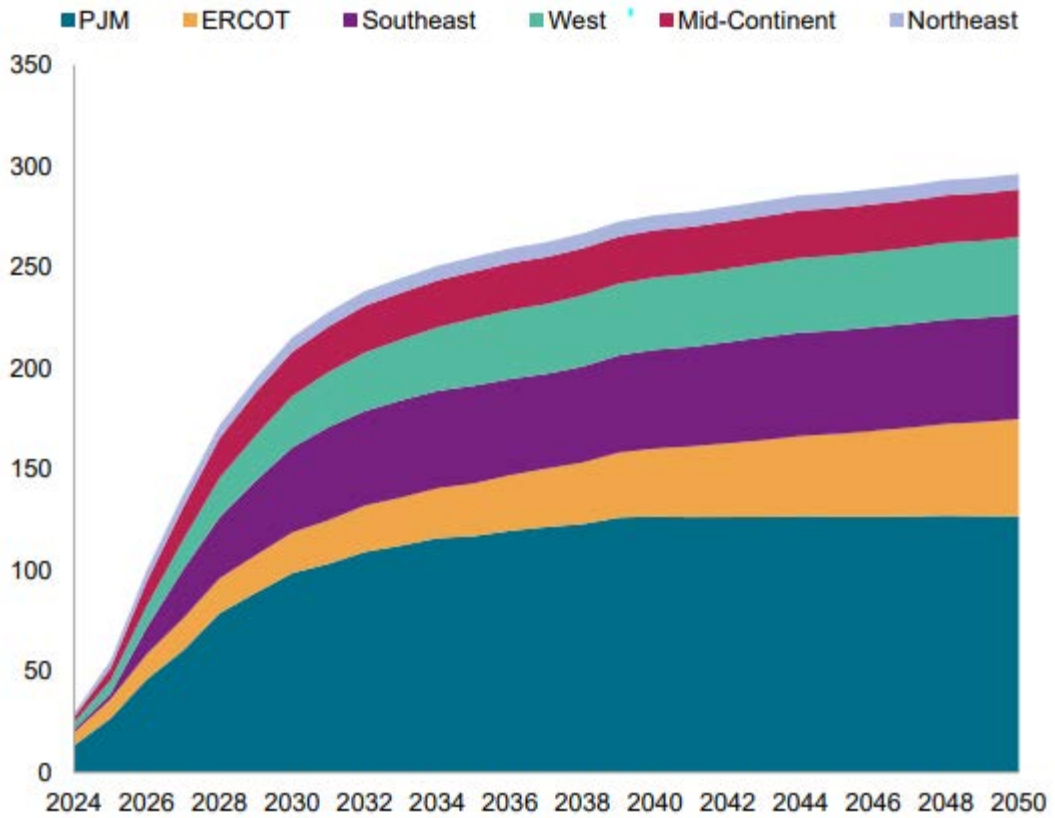
Annual North American liquefied natural gas export capacity by project (2016–2027)
billion cubic feet per day



Data source: U.S. Energy Information Administration, [Liquefaction Capacity File](#), and trade press
Note: LNG=liquefied natural gas. Export capacity shown is project's baseload capacity. Online dates of LNG export projects under construction are estimates based on trade press.

Data Center Growth

US cumulative, incremental grid-based electricity demand from large industrial loads (TWh)



Data compiled June 2024.
Source: S&P Global Commodity Insights.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that copies of the foregoing rebuttal testimony and exhibit have been served by posting on a shared document site, hand delivery of a USB drive or by electronic mail on this 2nd day of July, 2024 to the following:

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