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FPUC's Responses to Staff's Second Set of Interrogatories, Nos. 11-22

(Including Attachments)

Interrogatory No. 11

INTERROGATORIES

11. Please refer to witness Napier's Direct testimony, Page 19, Line 13, which states that the inflation trend factor is based on the average Consumer Price Index (CPI).

    a. Please show the calculations used to determine the average CPI for 2022 and 2023.

    b. What is the date and source the Company used for its forecast of average CPI? As part of your response, please state what other sources of forecasted average CPI were considered as alternatives, but not selected, and why.

    c. Please provide the calculations needed convert average CPI to the (non-payroll) inflation trend factors for 2022 and 2023 appearing in MFR Schedule G-2, Page 19e.

    d. Please provide a definition of the CPI used by FPUC to determine its (non-payroll) inflation trend factor. Address in your response what is being averaged to arrive at average CPI.

    e. Using the source specified in the response to sub-part B above, provide the most recent forecast of average CPI for 2022 and 2023 and the date of the data source relied upon to calculate it.

Company Response:

    a. Please refer to the file "Staff ROG 11 CPI Original Forecast" to see the calculations used to determine the average CPI for 2022 and 2023.

    b. The Company used the January 19, 2022 Bloomberg Weighted Average CPI Forecast to calculate average CPI for 2022 and 2023. These forecasts are derived from the latest monthly and quarterly surveys conducted by Bloomberg and from

forecasts submitted by various banks. By using the Bloomberg Weighted Average, the Company is incorporating more than 40 different economist expectations to calculate average CPI. No other sources of forecasted average CPI were considered as alternatives. The Company believes the average of multiple economists incorporates various expectations into the CPI forecast used for 2022 and 2023.

c. Please refer to the attached file "Staff ROG 11 CPI Original Forecast" to see the calculations used to convert average CPI to the (non-payroll) inflation trend factors for 2022 and 2023 appearing in MFR Schedule G-2, Page 19e.

d. The Company objects to the extent this request is vague, specifically, the phrase "what is being averaged" is unclear. In addition, this sub-part, by requesting a definition, suggests a potential for multiple definitions of CPIs, but other sub-parts appear to accept a common definition of CPI, which makes this request vague. FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request. As noted in the response to 11b the Company used the Bloomberg Weighted Average CPI Forecast to calculate average CPI for 2022 and 2023. These forecasts are derived from the latest monthly and quarterly surveys conducted by Bloomberg and from forecasts submitted by various banks. By using the Bloomberg Weighted Average, the Company is incorporating more than 40 different economist expectations to calculate average CPI. To calculate Average CPI the Company is taking the 12-month calendar year average of CPI for All Urban Consumers. The below table

shows the 2021 actual and 2022-2023 forecasted CPI by month and the average for the year used in MFR Schedule G-2, Page 19e.

CPI for All Urban Consumers (CPI-U)
Original Data Value

Series Id:	CUUR0000SA0
Not Seasonally Adjusted	
Series Title:	All items in U.S. city average, all urban consumers,
Area:	U.S. city average
Item:	All items
Base Period:	1982-84=100
Years:	2010 to 2022

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
2021	261.582	263.014	264.877	267.054	269.195	271.696	273.003	273.567	274.310	276.589	277.948	278.802	270.970
2022 - Forecast	280.324	281.854	283.392	284.561	285.735	286.914	287.858	288.806	289.756	290.469	291.183	291.898	286.896
2023 - Forecast	292.531	293.165	293.800	294.405	295.011	295.618	296.172	296.727	297.284	297.841	298.400	298.959	295.826

e. Please refer to "Staff ROG 11 CPI New Forecast" to see the most recent forecast of average CPI for 2022 and 2023. This forecast was run out of Bloomberg on August 8, 2022, and shows that the first six months of 2022 is actually higher than the forecast used in the rate case. In addition, the forecasted CPI for July 2022 thru December 2023 is also now higher than what was used in the rate case.

Respondent: Noah Russell

Interrogatory No. 12

12. MFR Scheduled G-2 Consolidated, Page 19e (identified as MFR Page 001702) provides an index for various trend bases (or factors). Please refer to MFR Scheduled G-2 Consolidated, Pages 19a through 19d (identified as MFR Pages 001689 through 001692), 5th Column. Explain why it is appropriate to use FPUC's inflation trend factor, based on average CPI, to calculate the non-payroll expenses for each applicable account (denoted as Indexes "1" and "13") as opposed to other available sources of expense growth estimates.

Company Response:

The Company objects to the extent portions of this request are vague, specifically, the request does not identify the "other available sources of expense growth estimates." FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request.

The trend factors used to calculate the non-payroll expenses for each applicable account (denoted as Indexes "1" and "13") are "inflation" and "inflation times customer growth" and are consistent with the factors used in the Company's last rate case. The factors were reviewed in this case based on the type of data in the accounts and we believe that the factors used were conservative and appropriate for the expected level of expenses for these accounts to continue to meet the natural gas needs of existing and new customers and provide safe and reliable service to our customers. Expenses that were expected to increase over inflation and growth are shown as separate adjustments on Schedule G-2 page 19f thru 19m. Factor 13 was used when the type of charges in the account were expected to increase both for inflation, which increases our material costs and vendor charges, and were also expected to increase as our customer base grew and

increased our feet of mains and number of regulators. Increase in the plant resulting from customer growth increases the mains, regulators, and other equipment needing repair and maintenance. Account 903-Customer Records and Collections is another example of costs that increase with growth. Factor 13 was used for this account because vendor costs charged to the account are often based on number of bills but also increase for inflation. Some accounts don't change much when customers grow, except as a result of inflation so the Company chose to use inflation only, which was also the more conservative approach. Please refer to Staff Interrogatory 11 which discusses why the Company believes that the inflation rate used is reasonable.

Respondent: Michelle Napier

Interrogatory No. 13

13. Please identify the factors leading to the changes in actual and projected average CPI from 2020 through 2023.

Company Response:

The Company objects that this request is irrelevant to this proceeding, and not likely to lead to the discovery of relevant information. In addition, this information is in the public domain and not unique to the Company. The Company also objects on the ground of vagueness, relevance, and being overly burdensome, because depending on its interpretation, the phrase "the factors" could be referring to a vast number of factors, and many such factors would be irrelevant. Without waiving the foregoing objections, FPUC provides the following response.

A multitude of factors have impacted the increase in the CPI forecast since January 2022. Some of the factors are as follows:

- Tight labor markets have pushed up wages, which is feeding into inflation pressures.
- Supply chain disruptions and bottlenecks continue to push inflation higher globally.
- The Russia-Ukraine conflict has sparked a sharp rise in commodity prices.
- Changes in housing trends.
- 2022 U.S Real GDP Growth forecast has dipped to 1.7% verse a December 2021 forecast of 4.0%.

Respondent: Noah Russell

Interrogatory No. 14

14. MFR Schedule G-2 Consolidated (identified as MFR Page 001693) reflects a customer growth trend factor of 1.0238 percent in 2022.

a. Please identify the source to support the customer growth trend factor of 1.0238 percent figure.

b. Please explain how the customer growth trend factor of 1.0238 percent figure was calculated.

Company Response:

a. The Company objects to the vagueness of portions of this request in that the term "the source" is vague, implying a single source but also potentially encompassing a vast number of items that may "support" a customer growth trend factor. FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request. The source of the 2021 number of customers was the December 2021 Gross Margin Report's average total customers. The source of the 2022 number was the original estimate of 92,005 customers provided by Atrium Economics and shown in Schedule G-2 page 6 of the MFR.

b. The calculation follows:

	Total Customers		
Year	Amount	% Increase	A Compound Multiplier

2021	89,866		1.0000
2022	92,005	2.38%	1.0238

Respondent: Michelle Napier

Interrogatory No. 15

15. Please refer to the direct testimony and attached exhibits of FPUC witness Taylor and MFR Schedule E-1. For each customer and therm use per customer forecast presented, please identify:

a. All FPSC dockets or other filings in which FPUC presented the same forecasts used in this proceeding and explain how they were used in those dockets or other filings.

b. All FPSC dockets which were opened after June 2021 in which FPUC filed customer or therm use per customer forecasts which were different from the forecasts used in this proceeding. Explain in each instance, if any, why a different forecast was used and how those differed from the forecasts in the instant case.

Company Response:

a. The Company objects that portions of this request are vague, specifically by requesting forecasts which were "the same" without explaining in what manner the forecasts were the same. FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request. The company has filed projections in Dockets 20220004-GU Natural Gas Conservation Recovery and 20220003-GU Purchased Gas True-Up. The projected therms and customers from G-2 page 7 will be used in these filings to compute the rates per customer class for conservation recovery and the PGA cap. These were prepared using the current rate structure. An amendment to the filings will be made if and when the Commission approves new customer classes as part of the rate case.

b. The Company objects to the extent portions of this requests are vague, specifically by requesting forecasts which were "different" without explaining how the forecasts were different. FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request. Docket 20210150-GU GRIP Cost Recovery was prepared prior to the Atrium Economics forecasts being prepared and thus the Company used the estimated customers and therms projected in the Company's budget at the time the filings were prepared. Customers and therms are used to calculate the estimated rates charged in 2022 which will be trued up in 2023.

Respondent: Michelle Napier

Interrogatory No. 16

16. Please refer to witness Taylor's direct testimony, page 7, lines 1-6. Please identify and explain the following:

a. Any "trends and seasonal patterns" for each forecast group that were identified as part of the Time-Series Decomposition process.

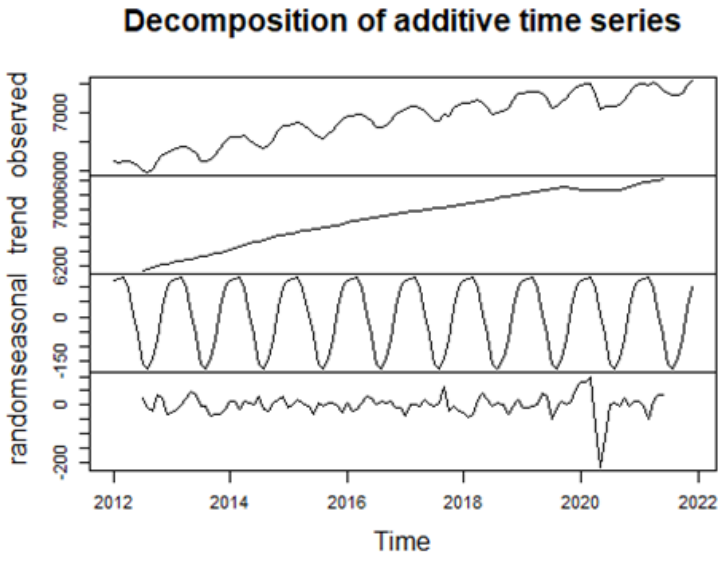
b. Which forecast groups demonstrated "weather-sensitive usage."

c. Which forecast groups contained "trending customer counts."

Company Response:

a. Please refer to the response to Staff's Production of Documents No.3. The Time-Series Decomposition process was performed for each forecast customer and the results are shown in Staff's Production of Documents Attachments 3 through 6 for each forecast group. Additive Time-Series Decomposition was utilized as an initial data exploration technique for each Customer Class being forecasted in order to visualize the trends, seasonal patterns, and the random components of the time-series. In doing so, we were able to better understand the data and make informed decisions when choosing an appropriate forecasting model. For example, in the chart below we see that the random, seasonal, and trend components have been extracted from our observed (actual) customer time-series. Additive Decomposition is useful because by adding all the components (trend, seasonal, random) we revert back to our original time-series, thereby making it easy to interpret. In the chart below the time-series has a linearly positive trend with consistent seasonal attributes. In addition, there are very small variances within the

Random Component, except for early 2020. These visualizations can be found within each white paper at the start of each model forecasting section.



b. Please refer to Exhibit JDT-2 to Mr. Taylor's direct testimony. The Modeled UPC and UPC Growth Rate billing determination forecast methods were selected for the rate classes that were identified as weather-sensitive.

c. For those rate classes that exhibited a trending customer count, the forecasted regression results were utilized. Please refer to the response to "OPC POD 02-10 CONFIDENTIAL WP-JDT Pro-Forma". Specifically, please refer to the "Master" tab columns J and N; which indicates which method was used for customer growth (column J) and the growth rate applied to those classes (column N). The forecasted groups can be found on the "Report_Regression" worksheet.

Respondent: John Taylor

Interrogatory No. 17

17. Please refer Exhibit JDT-2 of witness Taylor's direct testimony for the following:

a. Please explain the process for how the differing billing determinant forecast methods (Modeled UPC, UPC Growth Rate, Base Period, Historical Average, and Adjusted) were selected and applied for each customer class.

b. Please explain how FPUC obtained the forecasted 2023 customer counts for each rate class.

Company Response:

a. Please refer to the response to ROG Staff 2-16 (b). Modeled UPC, UPC Growth Rate method was selected for rate classes identified as weather sensitive. The historical average UPC method was selected for the Standby Generator Service and Gas Vehicle Transportation Service as these groups do not display trending usage. For the rest of the groups, the base period data was used, with known adjustments made to the historical data as discussed in ROG Staff 2-20

b. Please refer to the Response to number 2-16(c), above. Customer counts were forecasted using Autoregressive Integrated Moving Average (ARIMA) models. Each forecasted customer class has a different ARIMA model based on its individual time-series to best explain its unique trends and seasonal attributes. Seasonal Components, Drift, and Box-Cox Transformations were all considered when modeling each customer class in order to achieve high levels of accuracy while still meeting the statistical model assumptions needed (e.g., Stationarity, independently distributed data, etc.). ARIMA models were chosen because of their ability to account for the variation and trends within the data. In addition, ARIMA

models were highly favored because they require less assumptions about the data, thereby letting the time-series itself provide the information needed to forecast. Also, please refer to the Staff ROG 2-21 Attachment 1 for a full process of deriving forecasted customer counts.

Respondent: John Taylor

Interrogatory No. 18

18. Please refer to witness Taylor's direct testimony, page 7, lines 7-9. Witness Taylor testifies that "The last step was to forecast Customer Count & Use per Customer using multiple linear regression and Autoregressive Integrated Moving Average (ARIMA) models…" Please explain the following:

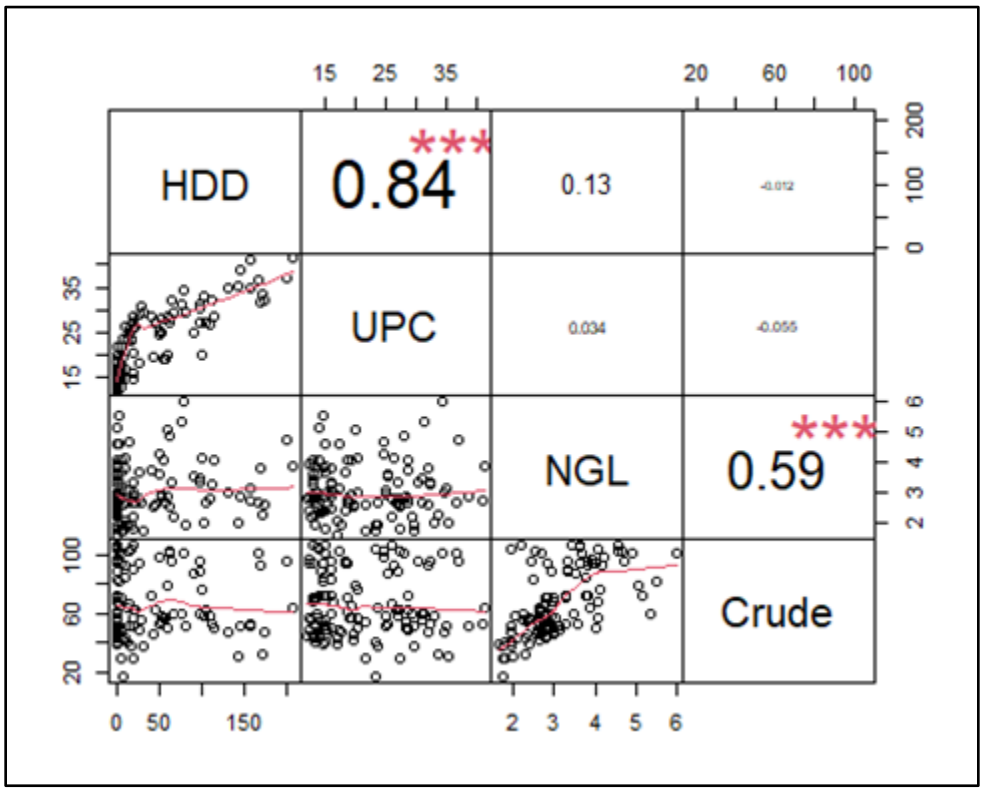
a. How the multiple linear regression equations were developed, including the selection of independent variables and functional form and applied to the selected rate classes and business units.

b. How the ARIMA models were developed and applied to the various rate classes and business units.

Company Response:

a. The Company objects to the extent portions of this request are vague, specifically to the phrase "were developed" which is inherently vague and potentially encompasses any number of possibilities. FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request. Multiple Linear Regression (MLR) models were created using weighted Heating Degree Days (HDD) per Customer Class and the month of the year as a factor/dummy variable. Normal HDDs were used to forecast using MLR, with normal HDDs set to the 20 Year Average of the actual Heating Degree Days. In addition, Box-Cox Transformation was often applied in order to satisfy the required Linear Regression assumptions as well as improve model performance. Box-Cox Transformation is a well-established statistical process that transforms the

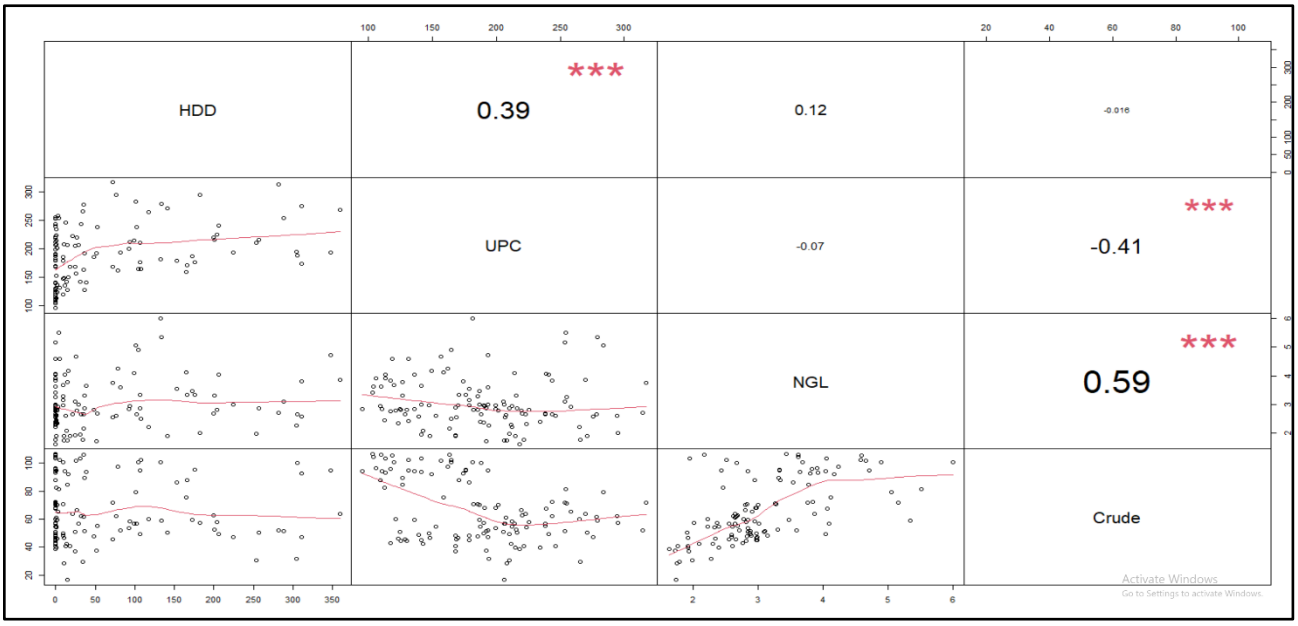
data to stabilize the variance and to make the data more aligned with a Normal Distribution. The decision to only use HDD and Month came from the fact that Use per Customer for Residential Customers was highly correlated to HDD, and weak/moderately correlated to other variables. Therefore, adding additional variables only decreased model performance. For example, see the Residential Use per Customer correlation chart below; where Use per Customer (UPC) is 84% correlated with Heating Degree Days (HDD), but only 3.4% with the price of Natural Gas.



The decision to not use MLR models was decided by the correlation strength of variables to UPC/Customer Count, Model Performance & Assumptions met, and Back-Testing accuracy in comparison to Autoregressive Integrated Moving

Average (ARIMA) Models. Generally, ARIMA models were preferred unless MLR models significantly outperformed them in back-tested results.

b. The Company objects to the extent portions of this requests are vague, specifically to the phrase "were developed" which is inherently vague and potentially encompasses any number of possibilities. FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request. Autoregressive Integrated Moving Average (ARIMA) models aim to describe the natural trends within the data. When creating models for each customer class all factors were considered including Seasonal Components, Drift, and Box-Cox Transformations. In addition, only the time-series of the customer class was considered within the model process to reduce assumptions within the model and as all external data (such as HDD) was already explained within the time-series itself. This reasoning also supports the preference of ARIMA models over the MLR models. Generally, ARIMA models will use lagged values, moving averages, and a degree of differencing to create the forecast. Many of the models had significant seasonal components and were added to the model as well (e.g., seasonal lagged values, seasonal moving averages, and seasonal degree of differencing). For example, the chart below depicts the results for Commercial FPUC General Services when HDD had a low correlation coefficient with UPC (39%).



In this case, the MLR model was not preferred. Using an ARIMA model resulted in a 24 Month Back-Testing accuracy of ~94% from January 2020 – December 2021. See table below.

24 Month Mean Absolute Error (MAE): 1.41

24 Month Accuracy: 0.94

Date	Actual.UPC	Predicted.UPC	Absolute.Error	Accuracy
Jan 2020	33.11	35.71	2.61	0.92
Feb 2020	29.59	32.41	2.82	0.90
Mar 2020	27.16	27.72	0.55	0.98
Apr 2020	23.43	24.42	0.99	0.96
May 2020	21.73	17.70	4.03	0.81
Jun 2020	16.79	15.18	1.61	0.90
Jul 2020	14.99	13.43	1.56	0.90
Aug 2020	13.36	12.54	0.82	0.94
Sep 2020	13.37	13.45	0.08	0.99
Oct 2020	14.49	14.60	0.11	0.99
Nov 2020	19.74	19.71	0.03	1.00
Dec 2020	32.00	28.18	3.82	0.88
Jan 2021	40.90	35.71	5.19	0.87
Feb 2021	31.38	32.41	1.03	0.97
Mar 2021	27.21	27.72	0.51	0.98
Apr 2021	26.47	24.42	2.05	0.92
May 2021	19.43	17.70	1.74	0.91
Jun 2021	16.01	15.18	0.83	0.95
Jul 2021	15.04	13.43	1.61	0.89
Aug 2021	13.00	12.54	0.46	0.96
Sep 2021	13.94	13.45	0.49	0.96
Oct 2021	14.63	14.60	0.03	1.00
Nov 2021	20.04	19.71	0.33	0.98
Dec 2021	28.68	28.18	0.50	0.98

Respondent: John Taylor

Interrogatory No. 19

19. Please refer to witness Taylor's direct testimony, page 8, lines 1-2. Please describe how the Company's "Use per Customer Growth Rate" was generated and applied to each selected rate class.

Company Response:

The Company objects that portions of this request are vague, specifically the phrase "generated and applied" which is inherently vague and potentially encompasses any number of possibilities. FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request. Please refer to the response to "OPC POD 2-10 WP-JDT Pro-Forma". Specifically, please refer to the "Master" tab columns AG and AI. The formula in those columns is conditional upon the selected method of the Billing Determinant Forecast Method. The "UPC Growth Rate" is calculated as (Prior Year Billing Determinants/Prior Year Actual Bills Count)*(1+Modelled UPC)*Forecasted Bills).

Respondent: John Taylor

Interrogatory No. 20

20. When discussing the "historical base period" in FPUC's forecasting process, witness Taylor testifies that, "In some instances, classes were adjusted to known events that will impact their forecasted usage" (p. 8, lines 4-5). Please describe, in detail, each adjustment that was performed as well as an explanation for why it was deemed necessary.

Company Response:

Witness Taylor's testimony, which notes "In some instances, classes were adjusted to known events that will impact their forecasted usage", refers to three adjustments made in the forecasting process. They are:

	Billing Determinants		
Customer Class	**2021**	**Adjustment**	**2023 Forecast**
CFG - Firm Transportation Service - 11	1,227,249	300,000	1,527,249
CFG - Firm Transportation Service - NGV	887,807	(787,676)	100,131
CFG - Firm Transportation Service - 8	4,981,990	516,106	5,498,096

Explanations follow:

a. Within the customer class "CFG- Firm Transportation Service – NGV", the Company has one main customer who has seen significant and steady declining usage over the past three years. In addition, this customer, which is on the Natural Gas Vehicle rate, lost their largest account in 2021 further reducing their usage in the latter portion of 2021. From Sept – December of 2021 this customer utilized 66,754. The volumes in this rate class are calculated at the annualized amount of the Sept-December 2021 usage with a 50% reduction, due to declining usage and uncertainly surrounding their business. (66,754 x 3 = 200,262*.50 = 100,131).

b. Within the customer class "CFG- Firm Transportation Service – 11", the Company added 300,000 of projected usage in the test year from a new customer that had just joined the distribution system in late 2021. Based on initial usage, and conversations with the customer, it was estimated that the customer would consume 300,000 annually during the test year, so that amount was added to the customer class.

c. Within the customer class "CFG- Firm Transportation Service – 8", two special contract customers were projected to go to a tariff rate of FTS-8. One special contract customer's 2021 actuals would put them in FTS-9 tariff rate, but with declining usage over the past 3 years, we reduced their actuals by an estimated 50% which puts them in a tariff rate of FTS-8 with estimated annual usage of 320,869. A second special contract customer has also a declining usage in the last 3 years and we reduced their 2021 actuals by 34% with estimated annual usage of 195,237.

Respondent: Matt Everngam

Interrogatory No. 21

21. Please provide a detailed mapping process of data sets that depicts the Company's five step forecasting process beginning with the historical annual customer data sets (2012-2021) and concluding with the Company's 2023 customer and use per customer forecasts.

Company Response:

The Company objects that portions of this request are vague, specifically it is not clear what is meant by "a detailed mapping process of data sets" and how these are intended to depict the Company's five step forecasting process, and it is not clear what is meant by "detailed." FPUC has made a good-faith and reasonable attempt to ascertain the meaning of this request, and provide a response based on such attempt, but FPUC responds without waiving its objection to the vagueness of the request. Please refer to the attached files: Staff ROG 2-21 Attachment 1- Forecast Process Mapping.

Respondent: John Taylor

Interrogatory No. 22

22. Beginning with the first forecasted data point (month/year) that FPUC used for their model projections (which have now transpired), please provide the following:

a. A side-by-side comparison of FPUC's monthly projected customer count and therm use per customer to FPUC's actual monthly customer count and therm use per customer (for each rate class).

b. A causative explanation for any deviations greater than 15 percent for therm use per customer and 3 percent for customers.

c. Please provide actual data and three-year forecast data for customer count and therm use per customer, for 2018, 2019, 2020, and 2021, as shown below:

Year	Accuracy of Total Customers Forecasts*					
	Forecast Error Rate (%)				0-3 Year Error (%)	
	Years Prior**				Average	Absolute Average
	3 Years	2 Years	1 Year	0 Years		
2018						
2019						
2020						
2021						
Average						

*The Company's officially adopted annual forecast of total customers

**Examples: In the column '3 Years,' row '2018', enter the percent error in the Company's 2015 forecast of 2018 customers. Similarly, in the column '0 Years', row '2021', enter the percent error in the Company's 2021 forecast of 2021 customers.

Year	Accuracy of Total Therm Sales Forecasts*					
	Forecast Error Rate (%)				0-3 Year Error (%)	
	Years Prior**				Average	Absolute Average
	3 Years	2 Years	1 Year	0 Years		
2018						
2019						
2020						
2021						
Average						

*The Company's officially adopted annual forecast of therm use per customer

**Examples: In the column '3 Years,' row '2018', enter the percent error in the Company's 2015 forecast of 2018 therm use per customer. Similarly, in the column '0 Years', row '2021', enter the percent error in the Company's 2021 forecast of 2021 therm use per customer.

Company Response:

FPUC objects that this interrogatory includes multiple requests encapsulated in one Interrogatory. FPUC objects to the extent that including multiple requests in one Interrogatory should not be allowed to exceed the discovery limitation set for this proceeding. Without waiving this objection, FPUC responds as follows.

a. Please refer to the attached file "Staff ROG 2-22 June YTD 2022 Actual to Fcst Compare.xlsx" for the comparison of customer count and use therm per customer based on the available year-to-date information ending June 2022 to the Forecasted information presented in this proceeding.

Respondent: Michael Galtman

b. Please refer to the attached file "Staff ROG 2-22 June YTD 2022 Actual to Fcst Compare.xlsx" for the explanations. In general, the customer count forecasts will differ from actuals for any single month as the customer count forecasts were developed to estimate total annual customer bills not customer counts for each month. Therefore, the

forecasted customer counts for each month are the same. As such, variations will exist during any single month or set of months due to the seasonality of customer counts. Please see Staff POD 02-03 Attachment 3 through Attachment 6 for the seasonality and trend patterns as well as back-testing and a five-year forecast for each forecast group.

The forecasted volumes are derived on an annual basis adjusted for normal weather for those classes that are weather sensitive. To derive monthly forecasted volumes the total annual forecasted volumes were allocated among the months based on the historical monthly data. The monthly therm use per customer was derived by dividing the monthly forecasted volumes by the forecasted annual total customers. Thus, there will inevitably be a difference between actual use per customer which is monthly volumes divided by monthly actual customer count and the forecasted monthly use per customer which does not reflect the seasonality in customer counts.

Respondent: John Taylor

c. FPUC objects to this request for past forecasts as irrelevant. Notwithstanding this objection, FPUC responds as follows without waiving the objection. The Company response below excludes special contract customers and therms consistent with the MFR filing.

Year	Accuracy of Total Customers Forecasts*					
	Forecast Error Rate (%)				0-3 Year Error (%)	
	Years Prior**				Average	Absolute Average
	3 Years	2 Years	1 Year	0 Years		
2018	-0.68%	2.02%	0.77%	0.34%	0.61%	0.95%
2019	4.19%	2.51%	2.38%	0.71%	2.45%	2.45%
2020	4.49%	4.67%	2.22%	0.22%	2.90%	2.90%
2021	7.59%	4.36%	0.92%	0.09%	3.24%	3.24%
Average	3.90%	3.39%	1.57%	0.34%	2.30%	2.30%

*The Company's officially adopted annual forecast of total customers

**Examples: In the column '3 Years,' row '2018', enter the percent error in the Company's 2015 forecast of 2018 customers. Similarly, in the column '0 Years', row '2021', enter the percent error in the Company's 2021 forecast of 2021 customers.

Year	Accuracy of Total Therm Sales Forecasts*					
	Forecast Error Rate (%)				0-3 Year Error (%)	
	Years Prior**				Average	Absolute Average
	3 Years	2 Years	1 Year	0 Years		
2018	-29.43%	-5.15%	2.01%	0.95%	-7.91%	9.38%
2019	-6.38%	0.23%	-0.19%	0.15%	-1.55%	1.74%
2020	-6.38%	-6.60%	-7.60%	-1.66%	-5.56%	5.56%
2021	-2.48%	-3.60%	-2.24%	-0.84%	-2.29%	2.29%
Average	-11.17%	-3.78%	-2.01%	-0.35%	-4.33%	4.33%

*The Company's officially adopted annual forecast of therm use per customer

**Examples: In the column '3 Years,' row '2018', enter the percent error in the Company's 2015 forecast of 2018 therm use per customer. Similarly, in the column '0 Years', row '2021', enter the percent error in the Company's 2021 forecast of 2021 therm use per customer.

Respondent: Michael Galtman

20220067-GU Staff Hearing Exhibit 00062

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase by Florida Public Utilities Company, Florida Division of Chesapeake Utilities Corporation, Florida Public Utilities – Fort Meade and Florida Public Utilities – Indiantown Division	) Docket No. 20220067-GU)))) Filed: August 22, 2022)

DECLARATION

I hereby certify and affirm that I sponsored the Company's responses to STAFF'S SECOND SET OF INTERROGATORIES TO FLORIDA PUBLIC UTILITIES COMPANY, Nos. 22a and 22c in Docket No. 20220067-GU. The responses are true and correct to the best of my knowledge.

Under penalty of perjury, I declare that I have read the foregoing declaration and the interrogatory responses identified above, and that the facts stated therein are true.

Michael Galtman, Declarant

Dated: 8/15/22

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase by Florida Public Utilities Company, Florida Division of Chesapeake Utilities Corporation, Florida Public Utilities – Fort Meade and Florida Public Utilities – Indiantown Division	) Docket No. 20220067-GU)))) Filed: August 22, 2022)

DECLARATION

I hereby certify and affirm that I sponsored the Company's responses to STAFFS' SECOND SET OF INTERROGATORIES TO FLORIDA PUBLIC UTILITIES COMPANY, Nos. 11 and 13 in Docket No. 20220067-GU. The responses are true and correct to the best of my knowledge.

Under penalty of perjury, I declare that I have read the foregoing declaration and the interrogatory responses identified above, and that the facts stated therein are true.

Noah T. Russell, Declarant

Dated: 8/12/2022

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase by Florida Public Utilities Company, Florida Division of Chesapeake Utilities Corporation, Florida Public Utilities – Fort Meade and Florida Public Utilities – Indiantown Division	) Docket No. 20220067-GU)))) Filed: August 22, 2022)

DECLARATION

I hereby certify and affirm that I sponsored the Company's responses to STAFF'S SECOND SET OF INTERROGATORIES TO FLORIDA PUBLIC UTILITIES COMPANY, No. 20 in Docket No. 20220067-GU. The responses are true and correct to the best of my knowledge.

Under penalty of perjury, I declare that I have read the foregoing declaration and the interrogatory responses identified above, and that the facts stated therein are true.

Matt Everngam, Declarant

Dated: 8/15/2022

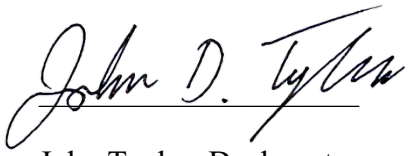
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase by Florida Public Utilities Company, Florida Division of Chesapeake Utilities Corporation, Florida Public Utilities – Fort Meade and Florida Public Utilities – Indiantown Division	) Docket No. 20220067-GU)))) Filed: August 22, 2022)

DECLARATION

I hereby certify and affirm that I sponsored the Company's responses to STAFF'S SECOND SET OF INTERROGATORIES TO FLORIDA PUBLIC UTILITIES COMPANY, Nos. 16-19, 21 and 22b in Docket No. 20220067-GU. The responses are true and correct to the best of my knowledge.

Under penalty of perjury, I declare that I have read the foregoing declaration and the interrogatory responses identified above, and that the facts stated therein are true.



John Taylor, Declarant

Dated: August 15, 2022

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

20220067.GU Staff Hearing Exhibit 00066

In re: Petition for rate increase by Florida Public Utilities Company, Florida Division of Chesapeake Utilities Corporation, Florida Public Utilities – Fort Meade and Florida Public Utilities – Indiantown Division	)	Docket No. 20220067-GU
	)	Filed: August 22, 2022

DECLARATION

I hereby certify and affirm that I sponsored the Company's responses to STAFF'S SECOND SET OF INTERROGATORIES TO FLORIDA PUBLIC UTILITIES COMPANY, Nos. 12, 14 and 15 in Docket No. 20220067-GU. The responses are true and correct to the best of my knowledge.

Under penalty of perjury, I declare that I have read the foregoing declaration and the interrogatory responses identified above, and that the facts stated therein are true.

Michelle D Napier

Michelle D Napier, Declarant

Dated: 8/12/2022