BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

APPLICATION OF ENTERGY LOUISIANA, LLC FOR APPROVAL OF NATURAL GAS COST STABILIZATION PROGRAM	))))	**DOCKET NO. U-_____**

DIRECT TESTIMONY

OF

MICHAEL J. GOIN

ON BEHALF OF

ENTERGY LOUISIANA, LLC

PUBLIC REDACTED VERSION

MAY 2024

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I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME, TITLE AND CURRENT BUSINESS ADDRESS.

A. My name is Michael J. Goin. My business address is 2107 Research Forest Drive, The Woodlands, Texas 77380.

Q2. WHAT ARE YOUR CURRENT DUTIES?

A. I am employed by Entergy Services, LLC. ("ESL")[1] in the System Planning & Operations organization ("SPO") as Vice President, Fuel Supply Operations. My team is responsible for the long-term planning and procurement of natural gas, natural gas transportation capacity, and coal on behalf of the Entergy Operating Companies ("EOCs"), which includes Entergy Louisiana, LLC ("ELL" or the "Company").

Q3. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of ELL.

Q4. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I earned a Bachelor of Electrical Engineering degree and a Master of Science in Management (MBA) degree from the Georgia Institute of Technology. I have been employed by ESL since 1996. During my career, I have held numerous positions in

[1] ESL is a subsidiary of Entergy Corporation that provides technical and administrative services to all of the Entergy Operating Companies ("EOCs"), which include ELL; Entergy Mississippi, LLC; Entergy Arkansas, LLC; Entergy New Orleans, LLC; and Entergy Texas, Inc.

financial planning and analysis, forecasting, accounting, strategic planning, and power marketing. From 1996 to 1997, I was in the Accounting organization. My main responsibilities were to produce financial analysis for the fossil and nuclear functions. From 1997 to 1999, I worked in the financial group responsible for utility planning and produced pro-forma financial statements. From 1999 to 2002, I worked in Strategic Planning on a variety of projects relating to transition to competition and various projects to support senior management. During that time period, I was promoted to Project Manager. In early 2002, I moved to the SPO organization and was promoted to manager in early 2003. As the Manager, Financial Analysis – System Planning, my responsibilities included coordinating analyses regarding the financial implications of generation supply alternatives for the EOCs. Examples of this include financial forecasts and cost-benefit studies. In February 2008, I assumed the position of Manager, Power Marketing in the SPO organization. The Power Marketing Team is responsible for the procurement and sale of short-term power. In February 2010, I assumed the role of Manager, Regulatory Projects. In March 2013, I was promoted to the role of Director, Regulatory and Strategic Initiatives where I oversaw SPO's regulatory efforts and led strategic initiatives. In February 2017, I assumed the position of Director, EMO, where I led our market operations efforts with respect to our generating resources. In April 2018, I assumed the position of Director, Planning Analysis, where my responsibilities included the long-term resource planning for the system. Immediately prior to assuming my current position, I was Director, LBA, where I had responsibility for the operations of the local balancing authority.

Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support ELL's Application for Approval of Natural Gas Cost Stabilization Program ("Application"). The hedging instruments and transaction parameters that the LPSC approved for ELL in 2018[2] expired in the first quarter of 2024 (the "Pilot Program"). Among other things, the Application seeks approval from the Commission to establish a permanent natural gas cost hedging program (the "Stabilization Program") built on the same concepts as the Pilot Program with relatively minor improvements based upon lessons learned over the program's five years.

The Pilot Program approved by the Commission in Order No. U-34735 dated November 8, 2018 produced benefits for customers both in terms of greater stability of natural gas prices borne by ELL's non-industrial customers and the avoidance of fuel-cost driven rate increases that might have occurred but for the Pilot Program. The program also produced customer savings, which, although such savings are not the objective of a natural gas cost stabilization program, nor is there necessarily an expectation of such savings in the future, is a notable outcome nevertheless. As discussed in the Application submitted in this proceeding and explained in further detail herein, ELL sees continued value to customers from pursuing additional hedging instruments through a Commission-approved Stabilization Program, particularly considering the significant increases in natural gas purchases projected over the next several years and the anticipated changes to natural gas markets as a result thereof. My

[2] *See* LPSC Order No. 34735 (November 8, 2018), *In re: Application for Approval of Long Term Natural Gas Procurement Proposal, Docket No. U-34735.*

testimony supports ELL's proposed Stabilization Program and discusses the recommended products, terms, and quantities that ELL would propose to acquire going forward to continue to mitigate the effects of natural gas price fluctuations on ELL's non-industrial customers.

Q6. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

A. First, I summarize the recently concluded Pilot Program and the results it achieved. In this section, I also review the various aspects of ELL's portfolio of generating resources and, more generally, conditions in the broader natural gas and electricity markets that demonstrate that ELL's non-industrial customers will continue to have exposure to natural gas price fluctuations. I then will review the current market conditions and data that support the view that ELL's non-industrial customers have prospective natural gas variability and "rate shock"[3] exposure that warrants serious consideration by the Commission of continuing with a hedging program. I also review financial instruments and other options available to ELL to mitigate natural gas price exposure.

In the next section of my testimony, I discuss the specific instruments that ELL is recommending for its Stabilization Program proposed in this proceeding and the analyses that ELL has conducted to support its recommendation. I also describe the procurement process that would be utilized to secure those instruments, which incorporates competitive bidding and is intended to optimize the costs incurred to

[3] I use the term "rate shock" to refer generally to customers' negative reaction to the experience of a substantial relative increase in their rates.

achieve cost stabilization. Before I discuss these three topics, I provide background information and an overview of ELL's Application.

II. BACKGROUND AND OVERVIEW OF APPLICATION

Q7. PLEASE DESCRIBE THE PROCEDURAL BACKGROUND TO ELL'S APPLICATION.

A. ELL's Application in this proceeding proposes that the Commission approve a new Stabilization Program that would replace the recently completed Pilot Program approved by the Commission in Order No. U-34735. The Commission proceedings that led to that Order generally are described in the Direct Testimony of Company witness, Ryan D. Jones, which also is being filed in support of the Application in this proceeding. In that Order, the Commission approved ELL's proposed transaction parameters for the two recommended instruments (no-margin swaps and call options) that ELL had outlined in its Direct Testimony in that proceeding.[4]

Q8. HAVE YOU REVIEWED ORDER NO. U-34735 WHICH APPROVED THE PILOT PROGRAM?

A. Yes.

[4] Order No. U-34735 at 2-3.

Q9. DID ELL SUBMIT THE REPORTS REQUIRED BY THE COMMISSION IN PARAGRAPH 7 OF ORDER NO. U-34735?

A. Yes. ELL submitted annual reports addressing the specific areas identified by the Commission in that paragraph, *i.e.*, (i) the ongoing performance of the instruments; (ii) the ongoing cumulative cost of the programs; and (iii) a hypothetical illustration of the cost of the same hedging program but at higher volumes using specific, simplifying assumptions.[5] Mr. Jones discusses those reports in his Direct Testimony.

Q10. DO YOU HAVE ANY COMMENTS ON THE INFORMATION THAT WAS REPORTED?

A. Yes. I understand why the Commission would want to recognize what economic value was provided by the instruments that had been approved by the Commission under the Pilot Program and whether it showed that the non-industrial customers for whom the instruments were secured achieved savings as a result of those Commission-approved instruments. My concern, however, is that, while cost savings is a potential benefit that could be realized from securing hedging instruments, that outcome is not the primary purpose of securing such instruments, nor is it assured.

Q11. PLEASE EXPLAIN.

A. As ELL discussed in its Response to the Commission's General Order Dated May 31, 2022 Regarding Analysis of Winter Gas Supply Issues filed on December 28, 2022 (the

[5] *Id.* at 4.

"ELL Response"), the financial instruments secured in the Pilot Program are designed to provide natural gas price *stability* to the participating customers.[6] Indeed, the Commission's General Order Dated May 31, 2022 directed ELL and other LPSC-jurisdictional utilities to investigate and report on the potential costs and benefits of procuring "additional financial natural gas contracts as a stability mechanism for short-term price spikes." While cost savings certainly may be an outcome realized by the customers for whom the financial instruments are purchased, that outcome is dependent upon future natural gas prices that are neither known nor knowable at the time the instruments are executed. While cost savings understandably are a focus of many, the benefits of achieving fuel-cost stability through a hedging program should really be measured by improvements to fuel-cost certainty and the ability to insulate customers from the effects of short-term spikes in fuel prices. Risk reduction and fuel-cost certainty should be the primary considerations in adopting such a program, as the Commission recognized in the aforementioned May 31, 2022 General Order.

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[6] *See* Entergy Louisiana, LLC's Report in Response to the General Order Dated May 21, 2022 Regarding Analysis of Winter Gas Supply Issues (December 28, 2022), *In re: Timely Disclosure of Facts and Notices, Regarding Such Matters as Maxgen Alerts, to Commission and Commissioners, and Related Matters, Docket No. R-34758, pp.* 2-3.("[As] the Commission has recognized, the purpose of and value to having such transactions in the utility's portfolio is to mitigate price volatility in the periods covered by those financial gas contracts. While such transactions may provide cost savings during those periods, that outcome cannot be assured, and should not be the sole purpose of entering into such transactions or the sole metric by which they are evaluated.").

Q12. FROM A NATURAL GAS PRICE STABILITY STANDPOINT, HOW DID THE PILOT PROGRAM PERFORM FOR PARTICIPATING CUSTOMERS?

A. The instruments secured under the Pilot Program performed as they were intended. The instruments provided for more stable natural gas costs than ELL customers would otherwise have had to bear in their electricity bills absent ELL securing those instruments. When natural gas prices were higher than the prices at which the hedging instruments were secured during the pilot, ELL customers received the financial benefit of the hedging instruments. Similarly, when natural gas prices were lower than the prices at which those hedging instruments were secured, ELL's customers had to bear the additional costs payable to the counter-parties for those financial instruments. While it is not possible to know what the future price of natural gas will be and whether hedging will produce cost savings for customers, we do know that hedging with these financial instruments provides greater fuel-cost stability to ELL's customers, as ELL will have greater certainty as to the prices it will pay for a portion of its future natural gas purchases.

Q13. ARE OTHER MECHANISMS AVAILABLE TO UTILITIES AND THEIR RETAIL REGULATORS FOR MITIGATING THE RISKS OF SHORT-TERM NATURAL GAS PRICE FLUCTUATIONS ON CUSTOMER BILLS?

A. Yes, and ELL reviewed several of those previously, and most recently provided its perspective in the ELL Response. Examples of other available mechanisms include: (1) generation resource portfolio diversity; (2) longer-term gas contracts; (3) natural gas storage capability; and (4) fuel cost deferral. I will briefly address each of these.

As discussed in that Response, the utility's portfolio of generating resources provides a natural hedge against natural gas price fluctuations, with non-natural gas fuel generating resources reducing the influence of natural gas price on the utility's fuel costs. For example, the Company's investment in nuclear generating resources provides a natural hedge for customers against gas price exposure. Another example is ELL's investment to modernize its gas generation fleet. While ELL's modern gas resources still use natural gas, they are more efficient – meaning they produce more energy for each unit of gas they consume. These higher efficiency gas generators thus reduce ELL's exposure to natural gas price fluctuations by significantly lowering the amount of gas consumed to meet is load obligations. ELL's continued investment in renewable generation options also will continue to provide portfolio diversification hedges for its customers, notwithstanding these resources' intermittent nature.

In addition, and as discussed in ELL's Response, natural gas price stability can be obtained through the pricing terms of the longer-term gas contracts secured by a utility, such as multi-month baseload purchases at Gas Daily Average ("GDA").[7] Yet, similar to most of the fuel price mitigation options I discuss, there are potential risks of cost increases for customers under these approaches. For example, because ELL is required to forecast its gas needs at a much earlier point than would be necessary with monthly, daily, or spot market purchases, ELL's actual natural gas supply needs could wind up being lower than the amount assumed when setting its baseload multi-month purchase. As a result, ELL would seek to sell its excess gas in the spot market, an effort

[7] ELL Response at 5.

that could result in losses when the spot-market gas price is lower than the GDA price at which the multi-month gas contract was secured.

Increased natural gas storage capability can also provide ELL's customers with a hedge against high delivered gas adders or GDA prices. This ability is one of many benefits that increased storage can provide, as discussed in greater detail in ELL's Response.[8] While those other storage benefits are not directly within the scope of this testimony, they are driven by significant natural gas market changes that are expected to influence future gas price instability, the physical availability of natural gas, and ELL customers' exposure to natural gas spot market price volatility and associated fuel adjustment clause ("FAC") rate shock, which I describe in greater detail herein.

Not discussed in the ELL Response is the potential to utilize ratemaking options, such as deferring fuel costs, to mitigate short-term spikes in natural gas prices by spreading recovery of those costs in rates over an extended timeframe. As discussed by Mr. Jones, ELL has previously employed such tactics in response to Winter Storm Uri and more recently during the summer of 2022. While this option does help stabilize rates in the short-term, it still leaves customers at risk for sustained periods of higher prices.

Notably these other mechanisms provide benefits to all of ELL's customers and are not limited to non-industrial customers in the same way that the Pilot Program and

[8] *Id.* at12-13.

the proposed Stabilization Program are, consistent with the Commission's Guidance Order[9] discussed by Mr. Jones.

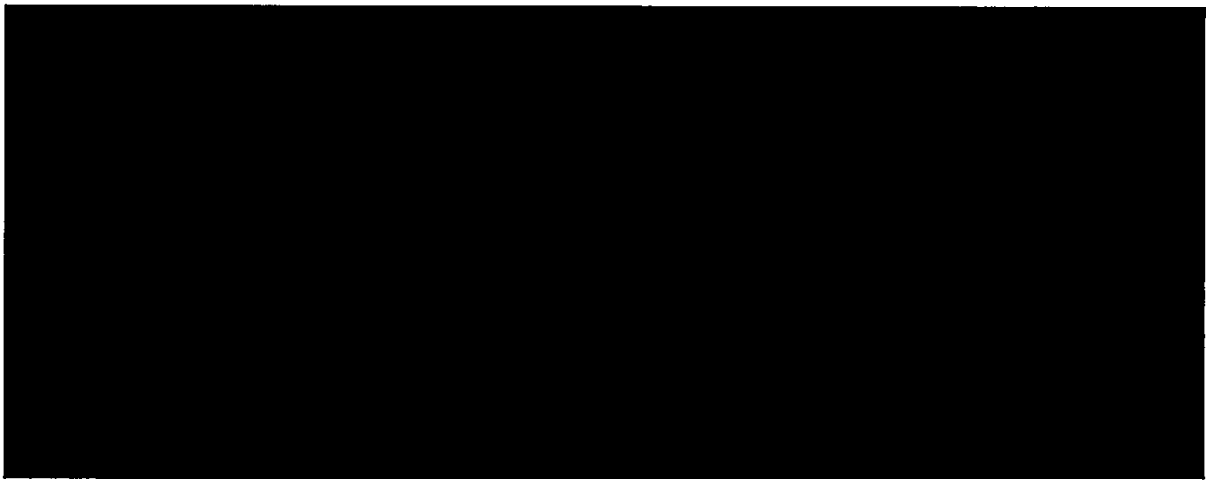
Q14. HOW MUCH NATURAL GAS SHOULD ELL CONSIDER HEDGING?

A. ELL's recommendation to the Commission as to the amount of its projected natural gas purchases that should be hedged is based upon a calculation of ELL's total exposure to market natural gas prices. To determine ELL's total natural gas purchase exposure, ELL's gas generation volume in terawatt-hours ("TWh") is added to the volume of wholesale energy purchases net of sales, assuming that the majority of traded energy is related to gas. Dividing that total by ELL's forecasted load illustrates the share of ELL's future load that is exposed to natural gas prices. The natural gas exposure in TWh is then multiplied by an effective heat rate to determine the expected volume of natural gas exposure (in TBtu). However, because the Pilot Program applied only to non-large industrial customers, the large industrial share is removed from that total figure for ELL to get the target amount of exposure to natural gas changes. The results of that estimation of non-large industrial natural gas exposure for the next ten years are provided in the table below, which contains highly sensitive protected materials ("HSPM"):

[9] *See* LPSC Order No. X-34341 (October 24, 2017), *In re: Report and Request for Initial Findings Regarding Long-Term Natural Gas Hedging, Docket No. X-34341.* The Guidance Order provides additional guidance with respect to the Commission's General Order R-32975 (July 13, 2015) (the "Long Term Hedging Program Order" or "LTHP Order"). ELL's Pilot Program was developed to comply with the mandates and guidance set forth in the LTHP Order and the Guidance Order as discussed in Mr. Jones' Direct Testimony.

Table 1 (HSPM)

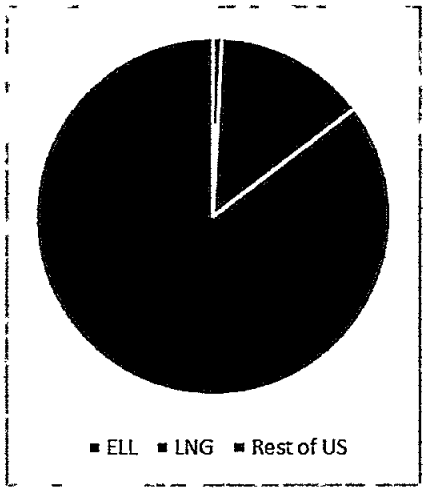
Estimation of Future Exposure (non-large industrial)



Q15. PLEASE DESCRIBE THOSE FUTURE MARKET CONDITIONS THAT WILL INFLUENCE NATURAL GAS PRICE VOLATILITY AND AVAILABILITY?

A. As discussed in the ELL Response, the growth of the Liquified Natural Gas ("LNG") industry, while an economic boon for the State of Louisiana, has constrained, and will continue to constrain, natural gas supplies, and more critically natural gas transportation (with the availability of natural gas transportation not increasing at a rate commensurate to the increase in demand for natural gas). Chart 1 of my Direct Testimony shows ELL's total daily gas purchases as compared to those associated with LNG and to the natural gas market in the United States as a whole.

Chart 1



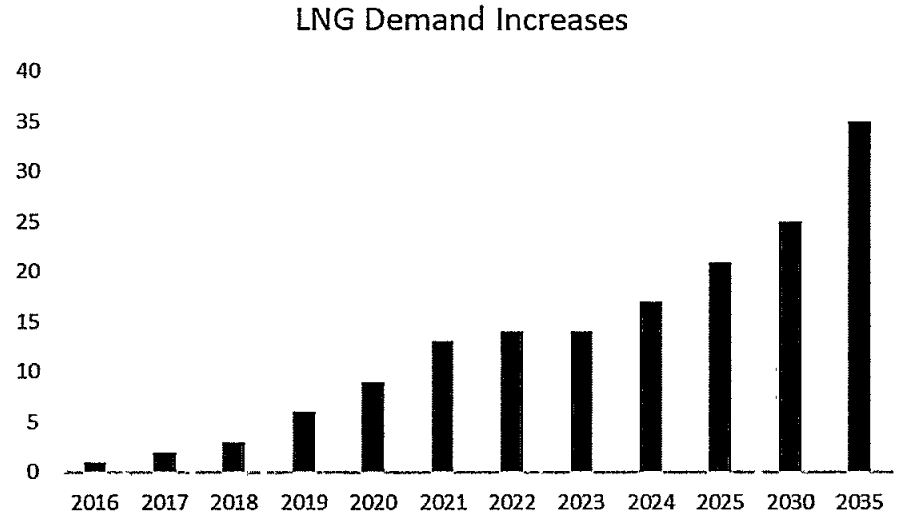
US Total Demand for NG + LNG Exports = 101 BCF/ day

ELL = 0.8 BCF/ day

LNG Purchases = 14 BCF/ day

As Chart 1 reflects, ELL's natural gas purchases make up a small fraction of the overall US gas market, while current LNG purchases are multiple times larger than ELL's. More significantly, continued growth of the LNG industry along the Gulf of Mexico is expected, with current projections suggesting that LNG Demand will nearly double by 2030 and continue to grow; those forecasts are depicted in Chart 2 below.

Chart 2



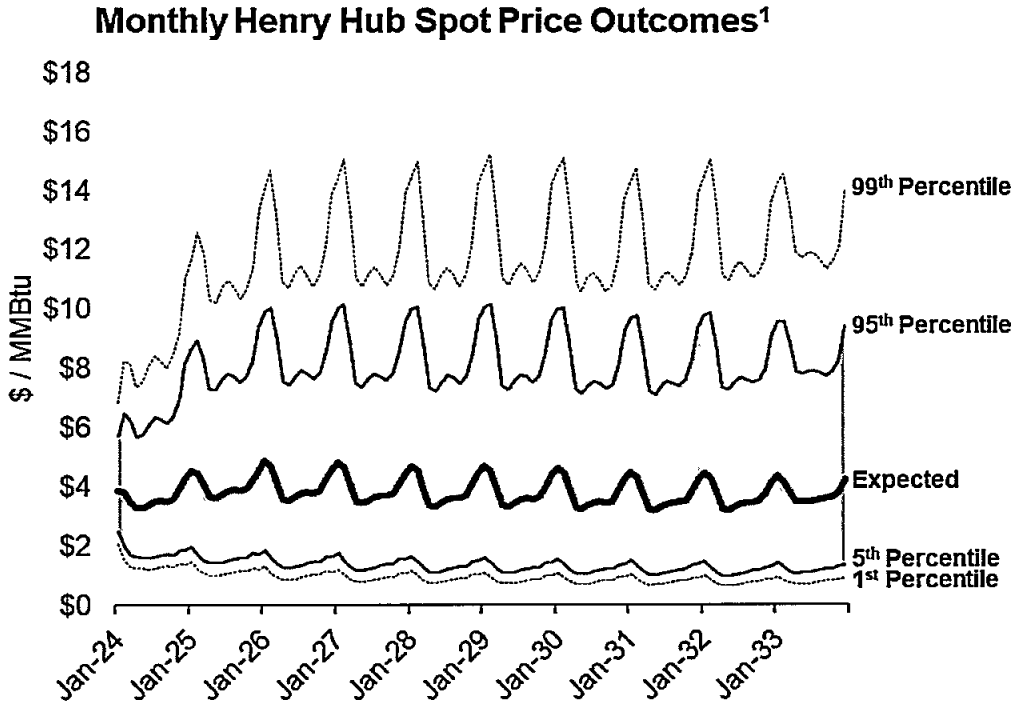
As these charts reflect, LNG is already a significant factor in the current natural gas markets. The continued significant growth of that industry, which is projected over the next several years, will have drastic impacts on the natural gas industry, increasing risk related to supply and pricing for ELL and its customers. These risks also are influenced by the location of existing and proposed LNG facilities, which are and will be located in the same regions as many of ELL's natural gas generation facilities as depicted in ELL Exhibit MJG-1. These LNG facilities have the potential to impose additional strain on limited natural gas production and transport systems.

ELL already has already taken steps to secure additional future supply and transportation of natural gas in light of these developments, including the acquisition of additional storage capability. Additional hedging is another way to dampen the expected future volatility of natural gas spot prices that is very likely to continue.

Q16. HAS ELL ESTIMATED THE POTENTIAL EXPOSURE OF ITS NON-INDUSTRIAL CUSTOMERS TO FUTURE GAS PRICE FLUCTUATIONS?

A. Yes. ELL evaluated NYMEX Henry Hub forward prices, which I will describe in greater detail later in my Direct Testimony, over the next ten years (2024-2033). Using price expectations based on forwards as of October 10, 2023 and measuring the volatility of historical gas prices during the period 1997-2023, ELL developed a range of price outcomes for monthly average Henry Hub spot prices, the results of which are reflected in Chart 3 below.

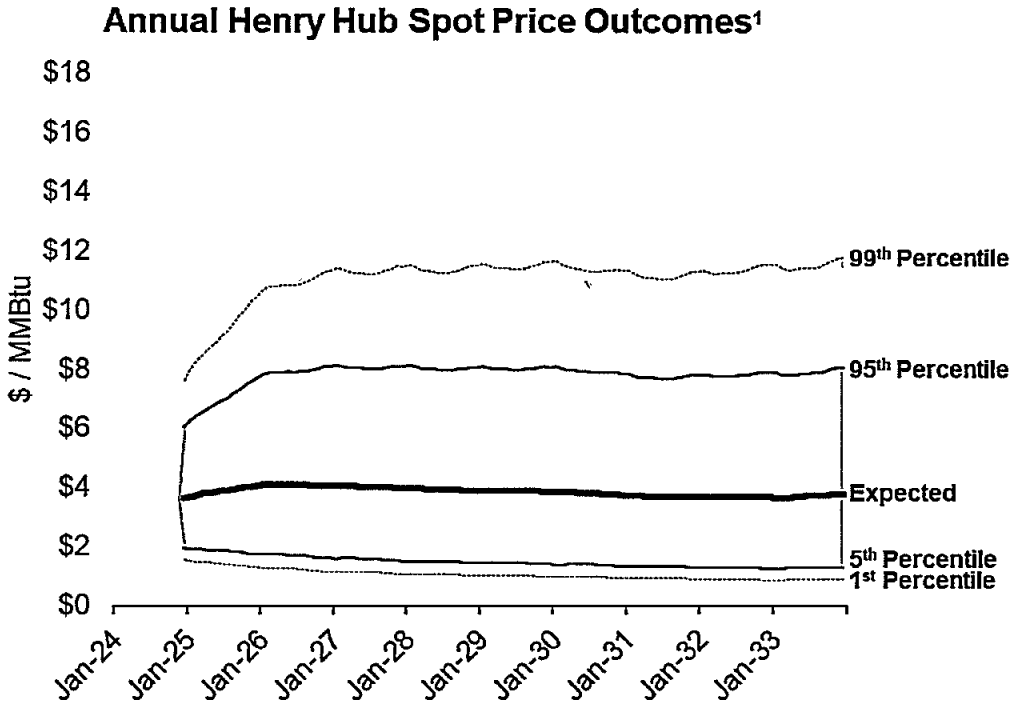
Chart 3



1. Price expectations are based on forwards as of October 10, 2023

This price uncertainty remains high even when looking at average annual prices, as shown in Chart 4, below.

Chart 4



1. Price expectations are based on forwards as of October 10, 2023

I would note that the monthly reflection of this volatility may be more relevant to ELL's customers because the calculation of their FAC charges occurs on a monthly basis.

Q17. HOW IS THIS PROJECTED VOLATILITY EXPECTED TO INFLUENCE CUSTOMER BILLS IN THE ABSENCE OF A CONTINUED HEDGING PROGRAM?

A. Based upon ELL's analysis, in absence of a hedging program, the FAC for a typical 1,000 kilowatt hour ("kWh") per month (note that 1,000 kWh = 1 megawatt hour ("MWh")) customer could vary monthly by between -$10 to +$17 per MWh[10] relative

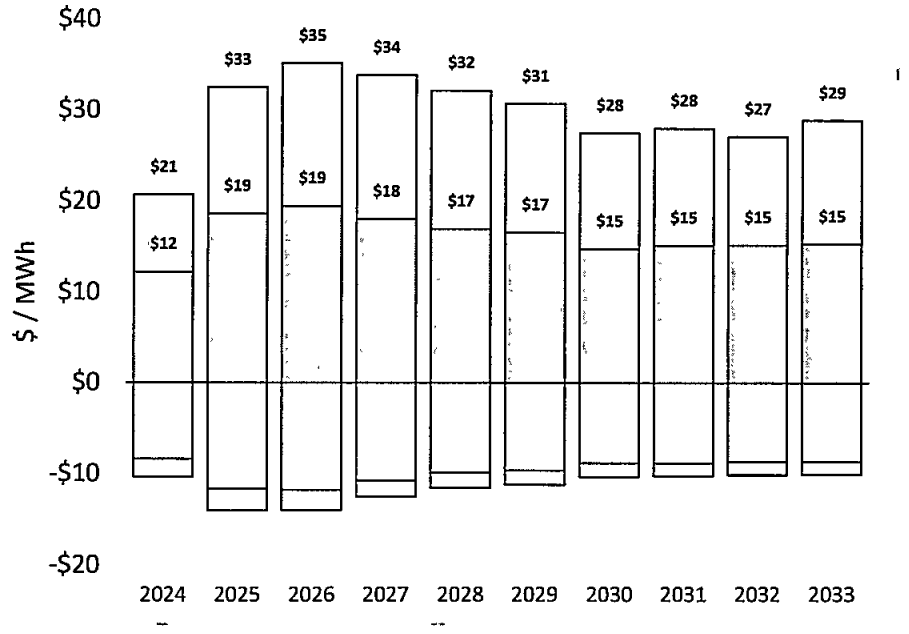
[10] Ranges identify the 5th and 95th percentile outcomes.

to current expectations in 2029. By 2033, that range decreases to -$9 to $15 per MWh, due to decreases in net gas MWh attributable to non-industrial retail sales. ELL's estimate of non-industrial customer exposure to natural gas prices is described in greater detail in HSPM Exhibit MJG-2 to my Direct Testimony. Note that the reduction in net gas MWh attributable to non-industrial retail sales results from projected increases in ELL's portfolio of renewable energy resources over that time period, which reflects the natural hedge provided by the addition of non-gas fueled resources in ELL's portfolio of generating resources. HSPM Exhibit MJG-2 reflects that ELL's share of load served by natural gas generation, while reduced, still remains substantial even through 2033. This exposure is shown in $/MWh in Chart 5 below.[11]

[11] The data on this chart also appears in HSPM Exhibit MJG-2 at slide 6.

Chart 5

ELL FAC Level



Q18. YOU PREVIOUSLY MENTIONED RATE SHOCK AS AN AREA OF FOCUS OF YOUR ANALYSIS. PLEASE EXPLAIN THAT CONSIDERATION.

A. As I mentioned previously, ELL continues to have significant net natural gas exposure over the next ten years, and that exposure remains significant even though it is projected to decline over time due to the planned acquisition of additional renewable resources for ELL's customers over that period. This exposure can produce potential variation in year-over-year changes in FAC charges for customers; these fluctuating FAC rates and the potential for associated customer concerns therefrom are what I refer to as "FAC shock." The potential variation that would produce this FAC shock that is

projected for ELL non-industrial customers in ELL's analysis is also set forth in HSPM Exhibit MJG-2.

III. ELL'S PROPOSAL

Q19. PLEASE DESCRIBE THE PARAMETERS OF THE NATURAL GAS COST STABILIZATION PROGRAM ELL IS PROPOSING?

A. A hedging program, such as that proposed here, can be characterized by three key parameters: (1) product, (2) term, and (3) volume. In developing its recommendations in this proceeding, ELL conducted extensive evaluations of multiple variations of each parameter to assess whether the Pilot Program parameters remained the best approach or whether some parameters should be modified for the Stabilization Program. I will address each of these parameters below and discuss ELL's assumptions for each parameter that was analyzed to develop its recommendation. Ultimately, ELL's analysis reflects that customers would be best served by:

- Product – purchasing swaps (a type of forward contract where ELL would pay (or receive) the difference between a fixed/known price and the variable/unknown spot price for a fixed quantity of natural gas for delivery in a future period);
- Volume – targeting [redacted] of ELL's projected non-industrial natural gas fuel supply exposure;
- Term – 5-year laddering approach in which ELL would purchase [redacted] for each of the five years into the future; and,

- Continuing to evaluate (periodically) increasing the percentage in the future based upon evolving market conditions and/or direction or recommendations from the Commission.

Q20. PLEASE EXPLAIN THE "PRODUCT" PARAMETER

A. In general, "product" refers to the types of financial instruments that a utility might pursue to mitigate customers' exposure to future natural gas price spikes. Under ELL's Pilot Program, ELL utilized no-margin swaps (sometimes referred to as "forwards") and call-options. As noted above, the Stabilization Program proposes using only no-margin swaps.

A swap is an agreement whereby a counterparty agrees that the utility will pay a stabilized price for natural gas, set at the time the contract is signed, regardless of whether the spot price for natural gas (usually a published index price) deviates from the stabilized price. In transaction documents, the stabilized price is referred to as the "fixed price," and the market price is referred to as the "floating price." These agreements usually take the form of a financial transaction (*i.e.*, settled in dollars based on a comparison of prices) rather than a physical delivery of natural gas. The mechanics of this type of transaction are straightforward. First, at the time the no-margin swap is signed, the buyer (*i.e.*, the utility) and seller (*i.e.*, the counterparty) agree to a stabilized price or swap price for a future period. Second, when that future period arrives, the then current market or index price is compared to the stabilized price. If the current market index price is above the stabilized price, the counterparty pays the utility the difference between the prices; if the stabilized price is above the current

market index price, then the utility pays the counterparty the difference between the prices. In this way, the contract is settled financially without the need to modify the ownership or usage of physical natural gas. The modifier "no-margin" refers to the fact that neither the utility nor the counterparty is required to provide security or collateral, such as a bond, cash, or letter of credit, to mitigate the risk of non-performance over the term of the swap. No margin swaps are a reasonable product to use when both parties have favorable credit ratings.

A call-option is an agreement whereby the utility pays for the right to receive proceeds from a counterparty if the current market index price exceeds the agreed upon strike price. The utility pays nothing in the future if market price drops, but the utility must pay an option premium at the outset. The option strike price can be set at any value. Strike prices are often set at or near current expectations of future market prices (referred to as "at market"), but they can be set above or below the expected future market price. Purchasing a call option at a higher strike price will lower its upfront cost but will also reduce the likelihood that the call option will produce a future payout.

For the analysis of this parameter, ELL compared and evaluated the following options: procuring instruments for swaps, call options at market, and call options at market plus $1.

Q21. PLEASE EXPLAIN THE "TERM" PARAMETER.

A. The term is the duration of the future delivery period over which the hedging instruments would be settled. The analysis also sought to make these procurements in periodic increments (laddered) over the designated period of time to spread out the

effects of any natural gas price fluctuations that occur during the period. ELL analyzed terms of procurements laddered over three years (*i.e.*, each month, 1/36th of target hedge volume is procured for each of the prompt 36 months) or laddered over five years (*i.e.*, each month, 1/60th of target hedge volume is procured for each of the prompt 60 months).

Q22. PLEASE EXPLAIN THE "VOLUME" PARAMETER

A. Volume refers to the portion of the utility's anticipated natural gas exposure that will be hedged with the chosen financial instruments. For the analysis, ELL compared and evaluated volumes of 10%, 20%, and 30% of expected non-industrial net MMBtu exposure.

Q23. WHAT ANALYSIS DID ELL CONDUCT OF THESE PARAMETERS?

A. As I noted above, ELL modeled approaches using different variations of products, term, and volume, *e.g.*, calls at market +$1, procured over 3 years, at 10%. With the parameters listed above, 18 variations were evaluated. The analysis utilized a stochastic model that simulated future natural gas market prices and evaluated the performance of each variation across a wide range of market conditions. Each variation was tested across 10,000 simulations.

Q24. WHAT WERE THE RESULTS OF THIS ANALYSIS?

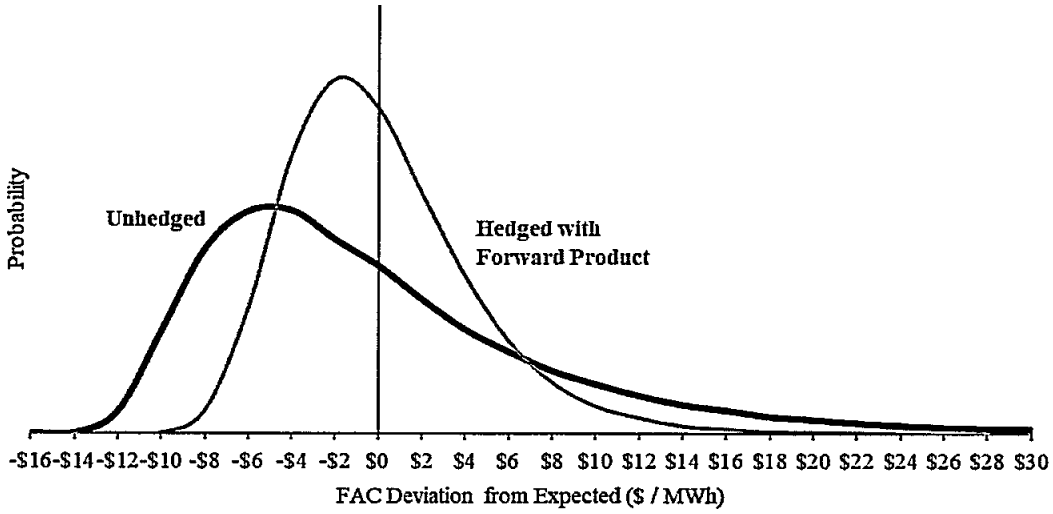
A. This analysis estimated both the reduction of FAC level risk and the reduction of FAC shock risk; the results of each are presented in HSPM Exhibit MJG-2. As those exhibits

show, forward purchases were the most advantageous in reducing risks among the product parameters, with the greatest reductions in risk coming with the larger volume procurements (30%) and the longer time periods, 5 years.

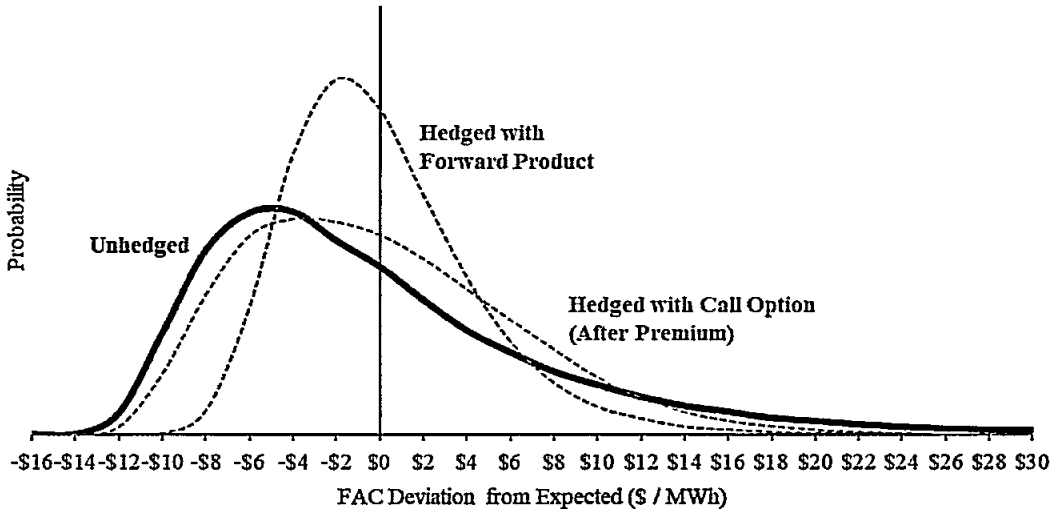
Q25. WHY WERE THE FORWARDS (NO-MARGIN SWAPS) ANALYZED AS PROVIDING SUPERIOR HEDGING REDUCTIONS TO THE CALL OPTIONS?

A. While call options may seem appealing, given that they are designed to protect against adverse outcomes while preserving savings opportunities (*i.e.*, the potential to benefit from lower prices if gas prices move below the strike prices), this advantage is reduced when considering that the cost of the option must be paid in all future market conditions, even when the option is not exercised (as the counter-party is paid for bearing that risk of market changes). When the cost of the call option is considered, forwards (no-margin swaps) appear to be a more effective risk management tool, all else equal, as reflected in the two charts below.

Illustrative 2029 Hedge with 3 Year Forwards for 100% of Net Natural Gas Exposure



Illustrative 2029 Hedge with 3 Year S1 Out-of-the-Money Call Options for 100% of Net Natural Gas Exposure



Q26. ARE THERE RISKS ASSOCIATED WITH PROCURING FORWARDS?

A. Yes. While forwards may be entered at no direct cost, they come with potentially significant future collateral requirements. In particular, potential mark-to-market

exposure could create a collateral requirement. Mark-to-market exposure refers to all of a party's obligations under any hedging instrument that such party could be required to pay over the remaining term of that instrument. The potential payment would be based on the current value of the hedging instrument. The value is calculated by comparing the current price of gas to the contracted hedge value for the remaining period prior to the termination of the contract. Future collateral requirements can be quantified by measuring what the amount of a mark-to-market capital posting requirement might be at different points in the future. Accordingly, where forward-based hedge approaches are used with longer terms (*e.g.*, five years) and higher target volumes (*e.g.*, 30%), those instruments will have the largest potential collateral requirements. In other words, the hedging approaches that, under the analysis, provided the most risk reductions (*i.e.*, forwards with larger volumes and longer terms) will also have the largest potential collateral requirements. If imposed, the cost of mark-to-market collateral payments would be included in the cost of the Stabilization Program immediately and recovered from ELL customers prior to the conclusion of the hedging instrument.

A. Procurement Process

Q27. WHAT PROCUREMENT PROCESS DOES ELL INTEND TO USE FOR ITS STABILIZATION PROGRAM?

A. ELL intends to use a bilateral procurement process. That is, ELL would solicit bids from and negotiate with commercial counterparties offering the types of products that

ELL has proposed and, assuming the Commission approves ELL's proposal, ELL would then execute transactions pursuant to the negotiated and agreed upon terms.

Q28. DOES A BILATERAL PROCESS MEAN ELL WILL BE FORCED TO TAKE WHATEVER PRICE A COUNTERPARTY OFFERS?

A. No. ELL's bilateral procurement process would incorporate competitive bidding, and this will prevent ELL from being forced to take a price from a counterparty. ELL expects to get multiple responses to its procurement inquiries from the potential counterparties, and, thus, would have the ability to choose the most favorable response or responses. Should the market not provide reasonable responses for procurement options, ELL reserves the right to select no winning bidders.

Q29. PLEASE PROVIDE MORE DETAIL ON THE PROCUREMENT PROCESS AND EXPLAIN HOW STAFF WILL BE INVOLVED.

A. [redacted]

[redacted]

Q30. WHAT WOULD HAPPEN ON THE PROCUREMENT DAY?

A. [redacted]

Q31. HOW WILL ELL EVALUATE THE OFFERS?

A. [redacted]

Q32. WHAT AMOUNT OF SWAPS/FORWARDS DOES ELL RECOMMEND PROCURING FOR ITS NATURAL GAS COST STABILIZATION PROGRAM?

A. [redacted]

Q33. DOES RELIANCE ON SWAPS HAVE IMPLICATIONS ON CREDIT AND COLLATERAL?

A. Yes. While swaps/forwards may be entered into at no direct cost (such as call options do), potential mark-to-market exposure creates a collateral requirement that could have balance sheet implications. Additional collateral could be requested by a counter-party depending upon the level of exposure that ELL has to the counter-party as a result of

the swaps. That potential is discussed in HSPM Exhibit MJG-2[12] and influenced ELL's recommendation for the threshold amounts that ELL recommends procuring.

Q34. ARE THERE CREDIT RISK MANAGEMENT PROCESSES THAT WILL BE USED FOR THE SWAPS/FORWARDS?

A. [redacted]

IV. CONCLUSION

Q35. PLEASE SUMMARIZE THE MAIN POINTS OF YOUR TESTIMONY.

A. The Commission should approve the proposed collection of transaction parameters for no-margin swaps, as the use of these parameters collectively to mitigate ELL customers' exposure to natural gas price volatility is prudent and reasonable such that

[12] Exhibit MJG-2, Slide 16.

these parameters should be approved for inclusion in ELL's proposed Stabilization Program. As I also mention above, ELL will continue to evaluate (periodically) increasing the percentage of its future projected natural gas costs that are stabilized through the Stabilization Program in the future based upon evolving market conditions and/or guidance from the Commission.

Q36. DOES THIS CONCLUDE YOUR TESTIMONY?

A. At this time, yes.

AFFIDAVIT

STATE OF TEXAS

COUNTY OF MONTGOMERY

NOW BEFORE ME, the undersigned authority, personally came and appeared, **Michael J. Goin**, who after being duly sworn by me, did depose and say:

That the above and foregoing is his sworn testimony in this proceeding and that he knows the contents thereof, that the same are true as stated, except as to matters and things, if any, stated on information and belief, and that as to those matters and things, he verily believes them to be true.

Michael J. Goin

SWORN TO AND SUBSCRIBED BEFORE ME
THIS 24th **DAY OF** April **2024**

NOTARY PUBLIC

My commission expires: 1/27/2027

TARA SCHWEGLER
Notary ID #130092629
My Commission Expires
January 27, 2027

BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

APPLICATION OF ENTERGY	)	
LOUISIANA, LLC FOR APPROVAL OF	)	
NATURAL GAS COST STABILIZATION	)	**DOCKET NO. U-_____**
PROGRAM, TRANSACTION	)	
PARAMETERS, AND OTHER RELIEF	)	

EXHIBIT MJG-2

HIGHLY SENSITIVE
PROTECTED MATERIAL

INTENTIONALLY OMITTED