BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

APPLICATION OF ENTERGY LOUISIANA, LLC FOR APPROVAL OF REGULATORY BLUEPRINT NECESSARY FOR COMPANY TO STRENGTHEN THE ELECTRIC GRID FOR STATE OF LOUISIANA	))))))	DOCKET NO. U-_____

DIRECT TESTIMONY

OF

LAURA K. BEAUCHAMP

ON BEHALF OF

ENTERGY LOUISIANA, LLC

PUBLIC REDACTED VERSION

AUGUST 2023

TABLE OF CONTENTS

EXHIBITS

I. INTRODUCTION

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

A. My name is Laura Beauchamp. I am employed by Entergy Louisiana, LLC ("ELL" or the "Company") as Director, Resource Planning and Market Operations. My business address is 4809 Jefferson Highway, Jefferson, Louisiana 70121.

Q2. ON WHOSE BEHALF ARE YOU FILING THIS DIRECT TESTIMONY?

A. I am filing this Direct Testimony on behalf of ELL.

Q3. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. In 2000, I earned a Bachelor of Science in Management degree with a concentration in Finance and in 2004 I was awarded a Master of Business Administration degree with a concentration in Energy Finance. My degrees were both granted by Tulane University's A. B. Freemen School of Business.

I have been employed by affiliates of Entergy Corporation since 2000 and have held various roles of increasing responsibility in Accounting, Finance, Regulatory, and Innovation. From 2009 through 2014, I served as the Manager of Regulatory Affairs for Entergy Louisiana, LLC, and Entergy Gulf States Louisiana, L.L.C. ("EGSL"), a role in which I was responsible for providing regulatory support services to those utilities, including in rate proceedings, and associated regulatory filings with the Louisiana Public Service Commission ("LPSC" or the "Commission"). Later, from 2016 through 2018, I served as the Finance Director for ELL. From 2018 through

2022, I held roles as the Director of Utility Finance and Strategy for Entergy Services, LLC and as Director of Innovation Strategy and Consulting at KeyString Labs, Entergy's innovation center.

Q4. PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES.

A. As the Director of Resource Planning and Market Operations for ELL, I am responsible for managing the long-term planning of generation, transmission, and wholesale power activities for ELL. My focus is on the generation, transmission, and wholesale power needs of ELL's customers. This involves working closely with Entergy Services, LLC's ("ESL") generation and transmission planning organizations, whose focus is on how to meet those needs at the lowest reasonable cost.

Q5. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION?

A. Yes. A list of my prior testimonies is attached as Exhibit LKB-1.

Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony serves to support ELL's requests for relief in the Company's Application in this Docket. I describe the Company's present and upcoming needs (during the 2023-2027 time period) for investment in additional generation resources – particularly solar photovoltaic ("PV") generation resources – as well as the nature of additional transmission investments the Company anticipates making during that time. I describe how ELL's recent past investments in modern, dispatchable, gas fired generation have paved the way for integrating renewable resources into ELL's generation portfolio in a

manner that preserves reliability and allows ELL's customers to enjoy the economic benefits that solar PV resources can provide. I also explain the growing demand for renewable resources from ELL's customers and new customers looking to invest in the State of Louisiana (a determining factor of which is the utility's ability to serve the customer with renewable generation), which demand is driven by these customers' sustainability targets and those of their own customers and investors. In this filing, ELL seeks approval of credit supportive rate mechanisms, described primarily by Company witness Alyssa Maurice-Anderson, so that ELL can obtain and construct these resources needed by customers, while maintaining the Company's creditworthiness, as discussed by Company witness, Ryan O'Malley.

II. ELL'S RESOURCE PLANNING PROCESS AND NEEDS

Q7. WHAT IS THE GOAL OF ELL'S RESOURCE PLANNING?

A. ELL's resource planning efforts are driven by the fundamental goal to deliver a sustainable resource portfolio that is centered on customer outcomes. Building a sustainable portfolio requires that ELL carefully balance three key objectives: reliability, affordability, and environmental stewardship. This balance looks at both the near-term and long-term benefits and risks associated with each key objective.

ELL's development of a sustainable portfolio places an emphasis on customer preferences. ELL recognizes that customer expectations for electric service will continue to change alongside advancements in technology and evolving market and policy considerations both in and out of the traditional utility framework. Accordingly,

ELL aims to meet customers' needs for reliable, reasonably priced electric services and energy solutions both for those expected today and in the future.

Q8. PLEASE ELABORATE ON THE THREE KEY OBJECTIVES YOU MENTIONED FOR BUILDING A SUSTAINABLE PORTFOLIO.

A. Reliability as a planning objective means ensuring that the stability of the grid is maintained through adequate resources to meet capacity and energy needs along with adequate transmission and distribution systems to ensure that power is reliably delivered to customers. Ensuring that there are adequate resources to meet customer demand is more than just supplying a certain number of megawatts or zonal resource credits. Resource adequacy must consider the diversity of the supply portfolio – both in technology type and operational characteristics – combined with customer-targeted energy efficiency and demand-side resources. It also must consider the location of resources, proximity of those resources to customer load, and the availability of those resources under various conditions. The ability of the transmission and distribution system to deliver those resources to customers is also a key aspect of maintaining reliability, and the careful integration of generation, transmission, and distribution assets and planning ensures that this reliability can be delivered at the lowest reasonable cost.

Affordability as a planning objective means keeping customer costs reasonable, considering current and future cost impacts of infrastructure improvements made on behalf of our customers and taking advantage of scale to provide cost synergies. ELL recognizes the importance of maintaining affordable rates for customers and prides

itself on the ability to maintain some of the lowest rates in the country. This requires balancing of various cost components such as capital investment, operations and maintenance expense, and fuel costs. Cost stability requires that ELL examine its portfolio over a variety of futures to ensure the long-term supply productivity of the resource.

Environmental stewardship as a planning objective refers to the use and protection of the natural environment, ensuring compliance with existing and likely regulations, adaptability of resources, and paths towards a lower-carbon economy. Portfolios that can adapt and remain sustainable over the long-term horizon bring customers increased benefits and help to manage long-term cost-stability. When considering the environmental stewardship objective, ELL also monitors customers' desire for decarbonization through lower emission generation, local renewables, and offerings that allow customers to meet their own sustainability goals in partnership with their utility. With the Company's ability to provide broad access to customers, ELL stands in a unique position to enable and extend a lower carbon economy to all customers and the communities that ELL serves. The fact that ELL is a regulated utility means that the Commission's oversight can help to ensure this transition occurs in a manner that is equitable for all stakeholders.

Appropriately balancing these three objectives with consideration of the near-term and long-term risks associated with each objective results in the lowest reasonable cost portfolio for customers.

Q9. PLEASE DESCRIBE ELL'S LONG-TERM RESOURCE PLANNING PROCESS AND THE NEAR-TERM NEEDS IDENTIFIED BY THAT PROCESS.

A. The core elements of ELL's resource planning process are: (1) a determination of the capability of the Company's current resources; (2) a forecast of the peak load plus reserve margin and energy that the Company expects to serve over the planning horizon; and (3) a determination of the amount and types of additional supply-side and demand-side resources that will be needed to meet the Company's load and energy requirements. As part of its resource planning efforts, ELL has developed and continues to refine an Integrated Resource Plan ("IRP"), which is filed at the LPSC pursuant to the Commission's IRP rules.[1] ELL's most recent submission of an IRP to the Commission was on May 22, 2023 (ELL's "2023 IRP").[2] As described in detail in ELL's 2023 IRP, ELL is projected to need additional long-term generating capacity over the course of the long-term planning horizon to replace deactivated capacity and address load growth, in order to reliably serve customers. ELL's IRP also identified solar resources as an economic option to address ELL's long-term capacity and energy needs, owing in part to the lower cost of solar resources. ELL's recent investments in modern, efficient, dispatchable, gas-fired generation also played a key role in enabling responsible and sound planning for renewable resource deployment by enhancing ELL's ability to integrate intermittent resources like solar into its resource portfolio without jeopardizing reliability or shifting cost responsibility for reliability to

[1] *See*, LPSC Corrected General Order R-30021 (April 20, 2021), *In re: Development and Implementation of Rule for Integrated Resource Planning for Electric Utilities, Docket No. R-30021.*

[2] *See*, Integrated Resource Final Draft Report (May 22, 2023), *In re: 2021 Integrated Resource Planning ("IRP") Process for Entergy Louisiana, LLC Pursuant to the General Order No. R-30021, Docket No. I-36181.*

customers of other utilities or exposing customers to price volatility associated with overreliance on capacity markets.

Q10. PLEASE PROVIDE AN OVERVIEW OF THE COMPANY'S CURRENT RESOURCE PORTFOLIO.

A. ELL controls 11.8 gigawatts ("GW")[3] of in-service capacity through direct ownership, capacity contracts with third parties, life-of-unit contracts with other Entergy Operating Companies,[4] and Demand Response resources. Over the last fifteen years, ELL has transformed and modernized its generation portfolio to support existing customers' needs and address significant current and expected industrial load growth in Louisiana by adding reliable and more efficient combustion turbine ("CT") and combined cycle gas turbine ("CCGT") generating units to meet its supply needs. More recently, as technological advancements made utility-scale solar economic, ELL began its transition to more renewable resources with the addition of the 50 MW Capital Region Solar facility in Port Allen, Louisiana. Table 1 below shows ELL's current (2022) resources by fuel type, including demand-side resources and supply-side resources owned by ELL and under contract through power purchase agreements ("PPAs").

[3] By way of comparison, 1 GW is the equivalent of 1,000 MW.

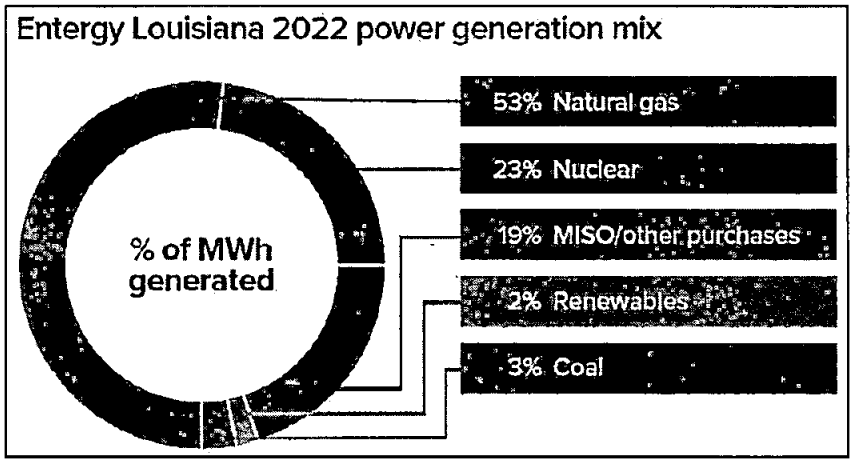
[4] The five Entergy Operating Companies are ELL; Entergy Arkansas, LLC; Entergy Mississippi, LLC; Entergy Texas, Inc.; and Entergy New Orleans, LLC.

Table 1

2022 ELL Resource Portfolio		
	Unforced Capacity ("UCAP") MW[5]	UCAP %
Coal	378	3.2%
Nuclear	1,986	16.7%
CCGT	4,880	41.1%
CT	1,275	10.7%
Legacy Gas-Steam	2,776	23.4%
Renewable	268	2.3%
Load Modifying Resources ("LMRs")	301	2.5%
Total	**11,864**	**100.0%**

Figure 1 below shows ELL's energy mix in 2022 by generation type.

Figure 1



Approximately 23% of the capacity in the Company's current resource portfolio is comprised of legacy generation units that have been in-service for nearly five decades,

[5] MISO, *Business Practices Manual Resource Adequacy,* MISO Energy (October 31, 2022), *available at* https://www.misoenergy.org/legal/business-practice-manuals; *Id. at.* Section 4.2.1.5.2. Solar generation in the renewable category is reflected at an effective capacity of 50% based on credit received from the Midcontinent Independent System Operator, Inc. ("MISO").

with the oldest being in operation for nearly six decades. While the Company has made and will continue to make investments to maintain these generators when economic to do so, many of these generators are expected to reach the end of their useful lives and become deactivated during the next eight years.[6]

Q11. DOES THE COMPANY NEED ADDITIONAL LONG-TERM GENERATING CAPACITY TO SATISFY ITS PLANNING OBJECTIVES?

A. Yes. ELL's Business Plan 2023 ("BP23") shows that ELL's projected load plus a planning reserve margin exceeds the expected capacity of ELL's existing and LPSC-approved resources, which indicates a need for additional long-term capacity. As I noted in my recently filed testimony in Docket No. U-36697, a comparison of the load and resource assumptions from ELL's Business Plan 2023 shows that ELL will have a capacity and energy need as soon as [redacted]. As seen in HSPM Exhibit LKB-2, ELL forecasts a need for approximately [redacted][7] LKB-2 similarly shows an energy deficit over the same time period.

[6] For example, ELL deactivated Waterford 1 during the first quarter of 2021. *See* LPSC Docket No. X-35751 (October 19, 2018), *Entergy Louisiana, LLC, ex parte, In re: Notice of Informational Filing Pursuant to Commission General Order (Docket No. R-34407) Regarding Retirement of the Waterford Plant 1 Generating Unit*; *see also,* Entergy Louisiana 2023 Integrated Resource Plan (Final Report), *Entergy Louisiana, LLC, ex parte, 2021 Request to Initiate Integrated Resource Planning Process Pursuant to the General Order (Corrected) in Docket No. R-30021,* Docket No. I-36181, p. 276.

[7] The figures provided here reflect unforced capacity ("UCAP"), rather than installed capacity ("ICAP").

Q12. WHAT ARE ELL'S CURRENT PLANS TO MEET ITS LONG-TERM CAPACITY NEEDS?

A. As noted above, the Company has developed and continues to refine an integrated resource plan that considers generation, transmission, demand response, and energy efficiency and is designed to meet customer needs in the lowest-reasonable-cost manner. The Company continues to need long-term capacity and energy over the planning horizon, and the plan to meet ELL's needs includes a combination of new-build generation, PPAs, and acquisitions from a diverse set of resources that will provide efficient operating flexibility to serve evolving customer demands. In recognition of the improving cost-effectiveness and numerous benefits that renewable resources can provide, the analyses conducted in ELL's two most recent IRP cycles identified a significant number of solar additions as an economic option to address ELL's near-term planning needs and provide customer benefits.

ELL's recent resource certifications and solicitations reflect this reality. For example, ELL recently received LPSC approval for its 2021 Solar Portfolio, which consists of four solar PV resources with a total nameplate capacity of 475 MW, as well as ELL's Geaux Green Option ("Rider GGO") green tariff. [8] ELL also has a current request before the Commission for the certification of two additional solar PV resources which will also further expand the GGO portfolio[9] as well as a pending

[8] *See,* LPSC Order No. U-36190 (October 14, 2022), *In re: Application for Certification and Approval of the 2021 Solar Portfolio, Rider Geaux Green Option, Cost Recovery and Related Relief, Docket No. U-36190,* approving a portfolio of four (4) resources totaling 475 MW: (1) Sunlight Road, a 50 MW PPA, (2) Vacherie, a 150 MW PPA, (3) Elizabeth Solar, a 125 MW PPA, and (4) St. Jacques, a 150 MW Build-Own-Transfer facility.

[9] *See,* LPSC Docket No. U-36685 (February 28, 2023), *Ex Parte: Application of Entergy Louisiana, LLC for Approval of the 2022 Solar Portfolio, Expansion of the Geaux Green Option, Cost Recovery and Related Relief.*

request for approval of an alternative market test and Commission approval of up to 3,000 MW of new solar resources.[10] Finally, ELL issued a 2022 Request for Proposal ("RFP") that solicited up to 1,500 MWs and has made selections from that RFP. ELL intends to bring resource transactions from the 2022 RFP to the Commission for approval in late 2023 or early 2024.

Q13. DO THE COMPANY'S PENDING REQUESTS FOR APPROVAL OF SOLAR RESOURCES ADVANCE THE STRATEGIES OUTLINED IN THE 2023 IRP?

A. Yes. As described in the action plan of the 2023 IRP, ELL plans to seek sizeable and frequent tranches of renewable resources in an attempt to respond to customer preferences, to increase the diversity of ELL's generation portfolio, to continue to provide reliable electric service to its customers at the lowest reasonable cost, to capitalize on the improving economics of solar and potentially other technologies relative to conventional generation resources (e.g., a CCGT), and to work toward its 2030 and 2050 sustainability goals. This proposed strategy will add needed capacity and energy to the grid to meet ELL's customers' projected capacity and energy needs, part of which is driven by new customers and customers who are expanding their operations, thus ensuring ELL can support new economic development in the region.

[10] *See*, LPSC Docket No. U-36697 (March 13, 2023), *Ex Parte: Application of Entergy Louisiana, LLC for Approval of Alternative Process to Secure up to 3,000 MW of Solar Resources, Certification of those Resources, Expansion of the Geaux Green Option, Approval of a New Renewable Tariff, and Related Relief.*

Q14. DOES THE ADDITION OF THE SOLAR RESOURCES CURRENTLY PENDING BEFORE THE COMMISSION SUPPORT ELL'S THREE KEY PLANNING OBJECTIVES FOR BUILDING THE TYPE OF SUSTAINABLE PORTFOLIO NEEDED TO MEET THE NEEDS OF ELL'S CUSTOMERS?

A. Yes. In terms of reliability, the long-term planning and dispatchable resource additions made over the past decades have served to meet the Company's long-term capacity needs I discussed above. In addition to the requests previously before this Commission, the need for incremental capacity and renewable, especially solar, for customers continues to grow. Currently, ELL's renewable portfolio represents less than 3% of its total portfolio, so more resources are needed. Unlike some other Louisiana utilities seeking to add a significant amount of intermittent solar resources that are not supported by dispatchable physical generation, ELL's existing portfolio of generation allows ELL to manage the intermittency of solar generation without risking reliability or shifting costs to customers of other utilities.

Regarding affordability, utility-scale solar has emerged as an economic investment for our customers. However, the current nature of the solar market is rapidly evolving and is subject to fluctuations. As discussed by Mr. O'Malley and others, the requests made in the Company's Application are meant to ensure ELL's ability to add solar resources to its generation portfolio while maintaining the financial health of the utility and, thereby, enabling ELL to attract capital required for these investments at a competitive cost.

As far as environmental stewardship, ELL is seeking to add a significant amount of zero-carbon-emitting solar resources to its portfolio. The addition of these

types of resources reduces ELL's carbon emissions, and they are a critical step toward meeting customers' desires for a lower-carbon resource portfolio.

Q15. WILL THE PLANNED ADDITION OF THESE RESOURCES BRING OTHER BENEFITS TO CUSTOMERS?

A. Yes. However, it is important to note that the benefits of the resources will be assessed by the Commission in the dockets in which they have been, or will be, proposed for certification. ELL is not seeking a finding from the Commission as to the potential benefits of these resources in the instant proceeding. That said, when these resources come to fruition, ELL's customers also will receive benefits beyond the ability to meet their own planning objectives and sustainability goals through further solar resource additions to the ELL portfolio. These benefits include projected energy savings and the ability of the solar resources in ELL's overall resource mix to act as a hedge against natural gas prices, which can be volatile and often set the locational marginal price of electricity. As I stated previously in my testimony, ELL has made investments in its resource fleet to ensure that the addition of further solar resources, which are intermittent in nature, will not jeopardize reliability. Therefore, from a resource planning perspective, ELL is able to take advantage of the energy savings and environmental benefits of renewable resources on behalf of all its customers because it has responsibly planned its portfolio. In this filing, ELL seeks approval of the supportive regulatory treatment, including needed cost recovery mechanisms, that will also be necessary to enable ELL's financially responsible investment in renewables, which will in turn facilitate its customers receiving the benefits of these resources.

III. ANTICIPATED LOAD GROWTH AND CUSTOMER DEMAND FOR RENEWABLE AND CLEAN ENERGY

Q16. HAVE ELL'S CUSTOMERS EXPRESSED A PREFERENCE FOR RENEWABLE AND CLEAN ENERGY RESOURCES?

A. Yes. ELL's customers, especially in the large commercial and industrial sector, increasingly are seeking renewable options to meet their planning objectives, as well as the desires of their own investors, customers, and the communities in the vicinity of their operations. Having this access to renewable energy will allow these customers to meet their own decarbonization and sustainability goals and encourage continued investment within the state of Louisiana. The 2021 Solar Portfolio approved by the LPSC in Docket No. U-36190 was a good first step towards integrating renewable resources into ELL's resource portfolio to help meet these demands while also achieving the other resource planning goals I have described above. As demonstrated by the Company's 2022 Solar Portfolio filing in Docket No. U-36685, ELL is continuing to add solar resources in response to customer demand. This customer demand is evidenced by the interest in Rider GGO, which provides a direct method for customers to address their preference for renewable options. The initial Rider GGO queue was fully subscribed in minutes, and there is interest in Rider GGO of over 2,000 MW in contrast to the current approximately 700 MW sourcing the rider. There is also additional evidence of customer interest in ELL acquiring renewable resources beyond

the 2,000 MW of interest recently expressed in Rider GGO.[11] For instance, stakeholders at Commission Business and Executive sessions referenced either the load growth, or the potential for load growth, that is tied to the ability of industrial customers to decarbonize their operations.[12] In Docket No. U-36697, the Company recently submitted testimony and other evidence that demonstrates demand from existing customers for renewable resources located in Louisiana and prospective customers for access to locally-sourced solar generation as a prerequisite for choosing Louisiana for siting and investment.

Q17. PLEASE DESCRIBE MORE FULLY THE DEMAND FROM PROSPECTIVE CUSTOMERS FOR RENEWABLE RESOURCES LOCATED IN LOUISIANA.

A. Many businesses that are considering Louisiana as a possible location have sustainability goals. As a result, a prerequisite for such businesses locating in Louisiana is access to emission-free energy. Indeed, certain federal incentives that would support economic development in this state are contingent upon the reduction or offset of Scope

[11] For example, on December 7, 2022, ELL and Cameron LNG announced a memorandum of understanding to negotiate a new electric service agreement to reduce Cameron LNG's Scope 2 emissions from the electricity it purchases from ELL. See, *Cameron LNG, Entergy Louisiana Advance Renewable Energy Service Agreement*, Entergy Newsroom (December 7, 2022), *available at* https://www.entergynewsroom.com/news/cameron-lng-entergy-louisiana-advance-renewable-energy-service-agreement/. Additionally, a number of industrial decarbonization and low-carbon announcements are identified in the 2023 Annual Report from the State Climate Task Force. Those announced projects will likely require access to clean or low-carbon power. *See* Office of the Governor, *Louisiana Climate Action Plan Annual Report,* Climate Initiatives Task Force (February 2023), p. 25, *available at* https://gov.louisiana.gov/page/climate-initiatives-task-force.

[12] *See* Bear, John, *Testimony Transcript,* Louisiana Public Service Commission Business and Executive Open Session (November 17, 2022), p. 7, In. 11-18, p. 9, In. 18-21; *See also,* Chambers, Terrence L., Mosing, Donald & Janice, *Solar Energy for Louisiana,* University of Louisiana Lafayette, p. 28, *available at* https://www.lpsc.louisiana.gov/docs/news/PSC%20-%20Solar%20Energy%201_18_23.pdf.

2 emissions.[13] Ensuring access to renewable energy resources for current and prospective customers addresses the needs of these customers and will help Louisiana remain an attractive location for the siting of new businesses.

In Docket No. U-36697, ELL provided letters of support from current customers, prospective customers seeking to build facilities in Louisiana, and local economic development groups supporting the need to expedite the solar build out in Louisiana in order for ELL to support the economic development of Louisiana and the state's efforts to attract additional job creating projects.

Q18. YOU MENTIONED ABOVE THAT THERE IS ANTICIPATED LOAD GROWTH IN THE COMMERCIAL AND INDUSTRIAL SECTOR. PLEASE DESCRIBE WHY THAT GROWTH IS ANTICIPATED.

A. There are many reasons that commercial and industrial load growth is anticipated. For decades, Louisiana has been one of the most attractive locations in the world for energy-intensive industrial and manufacturing operations, owing primarily to the low rates ELL's customers pay as well as the natural geographical advantages Louisiana offers. In Louisiana and across the Gulf South, world-class infrastructure, favorable commodity spreads, workforce availability, and access to deep water ports put Louisiana and the region at the forefront for the U.S. to compete globally for new and

[13] *See*, Department of the Treasury, Internal Revenue Service, *Renewable Electricity Production Credit*, Instructions for Form 8835 (February 3, 2023), *available at:* https://www.irs.gov/pub/irs-pdf/i8835.pdf (discussing, in part, the Clean Hydrogen Production credit). Scope 2 emissions are defined as greenhouse gas emissions associated with the purchase of electricity, steam, heat, or cooling. *See also,* United States Environmental Protection Agency, *Scope 1 and Scope 2 Inventory Guidance,* EPA Center for Corporate Climate Leadership (September 9, 2022), *available at* https://www.epa.gov/climateleadership/scope-1-and-scope-2-inventory-guidance.

expansion of its industrial customer base. A catalyst to this growth will be the Infrastructure Investment and Jobs Act and the Inflation Reduction Act ("IRA"), both passed by the U.S. Congress and signed into law within the last year. These laws will provide billions of dollars in federal funding to enable historic investment in clean energy production, grid resiliency, and decarbonization across all industries. The global energy transition coupled with IRA funding opportunities is spurring new industries focused on energy decarbonization solutions that includes, substituting low- and no-carbon fuel and feedstocks. Louisiana is competing with other states to attract these new industries such as green and/or blue hydrogen, ammonia, as well as growth companies supporting the build out of solar and wind generation.

To continue to remain an attractive electrical service provider and compete to attract new customers to the State, ELL will need to help its customers achieve their goals to decarbonize their operations – many of which goals are being driven by those customers' investors, and their own customer bases, and requirements for producing low-to-no carbon feedstocks. As I noted above, many of ELL's commercial and industrial customers are attempting to meet sustainability and decarbonization goals. Access to renewable energy from ELL is one important way in which these customers are seeking to decarbonize their operations, by reducing "Scope 2" emissions. But these customers are also looking to reduce their "Scope 1" emissions by increasingly electrifying their operations, which in turn increases the demand for electricity from these customers. For example, electrification appears to be a preferred method to replace and decarbonize aging equipment such as boilers, turbines, and compressors. Additionally, Louisiana is a highly desirable location for the production of clean

hydrogen and increased production of natural gas. Customers looking to establish or expand operations in this regard are also expected to increase the demand for electricity in Louisiana.[14]

Q19. WHAT IS ELL DOING TO PROCURE RENEWABLE RESOURCES TO MEET CUSTOMER DEMAND FOR CLEAN ENERGY THAT YOU HAVE DESCRIBED?

A. ELL is exploring all potentially viable options to enable future solutions for our customers. A summary below highlights recent strides to procure resources today and enable future solutions to meet customer demand and resource constraints.

- The LPSC has approved ELL's 475 MW solar portfolio in Docket No. U-36190;
- ELL has sought certification of an additional 224 MW solar portfolio in Docket No. U-36685;
- ELL has solicited or is in the process of soliciting upwards of 4.5 GW of additional solar or wind (in our 2022 RFP and Docket No. U-36697);
- ELL announced a Memorandum of Understanding with RWE, AG regarding the evaluation and potential early development of wind power generation in the Gulf of Mexico;[15] and

[14] *See, e.g.*, Louisiana Department of Economic Development 2022 Annual Report available at: https://www.ledannualreport.com/; Dr. Loren C. Scott, *Louisiana Economic Forecast: State and MSAs: 2023 and 2024*, (October 2022) available at (subscription required): https://www.lorenscottassociates.com/index.html.

[15] *RWE and Entergy Partner to Define Route to Market for Offshore Wind in the Gulf of Mexico*, Entergy Newsroom (March 30, 2023), *available at* https://www.entergynewsroom.com/news/rwe-entergy-partner-define-route-market-for-offshore-wind-in-gulf-mexico/.

- ELL's proposal that was submitted to the United States Department of Energy ("DOE") for the purpose of obtaining a grant to support integrating a full-scale carbon capture and storage ("CCS") facility at the Lake Charles Power Station was recently advanced for award negotiation, but availability of funds is uncertain at this point.[16]

Q20. ARE THE INVESTMENTS ELL MUST MAKE TO SERVE LOAD LIMITED TO INVESTMENTS IN GENERATION?

A. No. ELL anticipates that its ability to continue reliably serving load will also require additional investment in the transmission function. To that end, as part of MISO's MTEP23 planning cycle, ELL proposed several transmission projects which will provide, among other benefits, additional load-serving capability along the Mississippi River corridor between New Orleans and Baton Rouge, where several prospective large industrial customers have indicated interest in interconnection to ELL's transmission grid. Additionally, it is likely that ELL will need to invest in additional dispatchable, gas-fired generation to replace aging plants, support the reliability of the grid and to be able to serve load.

[16] Office of Clean Energy Demonstrations, *Carbon Capture Demonstration Projects Program Front-End Engineering Design (FEED) Studies Selections for Award Negotiations,* Office of Clean Energy Demonstrations, *available at* https://www.energy.gov/oced/carbon-capture-demonstration-projects-program-front-end-engineering-design-feed-studies.

IV. CURRENT PLANNED GENERATION AND TRANSMISSION INVESTMENTS

Q21. PLEASE SUMMARIZE THE GENERATION INVESTMENTS ELL HAS PENDING BEFORE THE COMMISSION AND NEW INVESTMENTS ELL PLANS TO SUBMIT TO THE COMMISSION FOR REVIEW AND APPROVAL IN THE NEAR-TERM.

A. As I noted above, ELL recently gained approval of the 2021 Solar Portfolio in Docket U-36190. This proposal included one facility that ELL will own and three PPAs. Currently pending in Docket U-36685 is ELL's request to add 224 MWs of solar generation, consisting of a 175 MW PPA and a 49 MW self-build resource. ELL has also recently sought certification of and Commission approval to add up to 3,000 GW of solar resources to its portfolio in Docket U-36697. As I noted above, ELL's 2022 RFP targeted up to 1,500 MWs of new solar resources and ELL anticipates seeking approval of resources from the 2022 RFP near the end of 2023 or during the first quarter of 2024.

Q22. WHY ARE THESE RESOURCE ADDITIONS RELEVANT TO CONSIDER IN THE INSTANT RATE PROCEEDING?

A. Acquiring these resources and achieving the potential benefits they can bring to ELL, its customers, and the State of Louisiana is expected to require significant investment from ELL. As Company witnesses Todd Shipman and Mr. O'Malley describe in greater detail, in order to be able to make these investments, and realize the benefits I

have described, ELL will need supportive cost recovery mechanisms to be approved by the Commission so that ELL can be able to recover the required investments and maintain its status as a financially healthy utility.

Q23. OF THE SOLAR RESOURCE FILINGS YOU DESCRIBED, WOULD ELL ANTICIPATE THAT THE MAJORITY OF RESOURCES WOULD BE OWNED BY THE COMPANY?

A. No, the resource mix will be determined by which type (owned versus PPA) is offered to ELL and which provides the lowest reasonable cost. In ELL's last three renewable RFPs, the proposals submitted have been approximately 64% proposals for PPAs and 36% of potentially owned resources. Of the six solar resources that have either recently been certified or proposed for certification, only two are owned resources and four are PPAs, which represent 72% of the installed capacity of the six resources. Thus, ELL's need for supportive cost recovery mechanisms is not limited to owned assets that will form a part of ELL's rate base; it also extends to the ability to fully and fairly recover the costs of PPAs (which are not traditionally a part of rate base). To be sure, the implementation of the Production Cost Tax Credits for renewable resources has fundamentally lowered, and even eliminated, the difference in the nominal costs of owned renewable resources relative to PPAs, a gap that tended to tempt one to overlook the much stronger benefits of ownership for customers, including the superior long-term economic benefits. Nevertheless, whether needed to support PPAs that affect ELL's balance sheet and credit metrics or to provide required cash flow during the

construction of owned resources, ELL's need for supportive cost recovery mechanisms remains paramount as Mr. O'Malley's Direct Testimony discusses.

Q24. IS IT POSSIBLE THAT THE COMPANY COULD SEEK TO ADD ADDITIONAL RESOURCES THAT ARE NOT CURRENTLY PLANNED AND WHICH YOU HAVE NOT DESCRIBED?

A. Yes. The Company remains open to evaluating opportunities to add resources that can bring benefits to its customers and, from time to time, receives unsolicited offers for such resources. For example, the Elizabeth solar facility I described above was the result of an unsolicited offer. It is important that cost recovery mechanisms applicable to the Company's investments in generation, as further described by Ms. Maurice-Anderson, enable ELL to take advantage of such offers when they are presented regardless of whether they are in the Company's current capital investment plans.

Q25. PLEASE SUMMARIZE THE NEW TRANSMISSION PROJECTS ELL PLANS TO UNDERTAKE BASED ON THE MTEP 2023 PROCESS YOU DESCRIBED ABOVE.

A. Holistically, MTEP projects are MISO's Transmission Expansion Plan projects. The annual MTEP portfolio is developed through an inclusive and transparent, 18-monthlong, stakeholder process. In this process, MISO evaluates various types of projects that, taken together, build an electric infrastructure to meet local and regional reliability standards, manage economic congestion, and ensure generator deliverability. In its annual submission in September 2022, ELL proposed numerous projects for

inclusion in the MTEP23 planning cycle; the specific projects referenced earlier in my testimony represent a subset of the total portfolio and I will summarize those projects here.

- Amite South Reliability Project – Phase 1: This project will add a 500kV circuit and a 230kV circuit, each approximately 60 miles, to strengthen the transmission backbone along the west bank of the Mississippi River corridor between Baton Rouge and New Orleans, which is an area of high potential economic growth. The project will also increase extreme weather event resilience and operational flexibility, as well as increasing load serving capability in the Amite South region.
- Amite South Reliability Project – Phase 2: This project will add a 14-mile 230kV circuit on the east bank of the Mississippi River south of Baton Rouge and tie the 230kV system into the existing 500kV system to strengthen the transmission backbone in that area, which is an area of high potential economic growth. The project will also increase extreme weather event resilience and operational flexibility, as well as increasing load serving capability in the Amite South region.
- Amite South Reliability Project – Phase 3: This project will add a 40-mile 230kV circuit on the north shore of Lake Pontchartrain that will increase the load-serving capability in the Amite South load pocket, as well as

address NERC reliability standards. The project will also improve operational flexibility and enhance extreme weather event resilience.

- DSG Reliability & Resilience Project: This project will add a 27-mile 230kV circuit on the west bank of the Mississippi River in St. Charles and Jefferson Parishes that will increase the load-serving capability in the Downstream of Gypsy ("DSG") load pocket. The project will also improve operational flexibility and enhance extreme weather event resilience.

Q26. ARE THESE THE ONLY TRANSMISSION PROJECTS ELL WILL NEED TO UNDERTAKE IN THE NEAR FUTURE IN ORDER TO BE ABLE TO RELIABLY SERVE LOAD?

A. No. ELL has numerous transmission projects planned or underway in its current and prior MTEP portfolios that are designed and constructed to enable ELL to continue reliably serving its load. The specific transmission projects described in this testimony are four significant projects that not only will improve reliability and enhance ELL's transmission grid resilience but also will enable economic growth for the State of Louisiana.

Q27. WHY IS THIS INFORMATION IMPORTANT FOR THE COMMISSION TO CONSIDER IN THE CONTEXT OF THIS CASE?

A. Because, as Company witnesses Mr. O'Malley and Mr. Shipman describe, the Company needs to be in a financially healthy position to be able to make necessary investments in the generation and transmission functions, and the Company needs to

be able to recover the costs of these investments through supportive rate mechanisms in order to maintain that financial health. As these witnesses point out, the Company's ability to recover these costs through supportive mechanisms and maintain its financial health ultimately inures to the benefits of ELL's customers, who will not only enjoy the benefits of the projects themselves, but also the benefits of ELL having acquired the capital necessary to make the investments at a reasonable cost, which is ultimately reflected in rates.

V. CONCLUSION

Q28. PLEASE SUMMARIZE YOUR TESTIMONY.

A. ELL is seeking implementation of credit supportive rate mechanisms that will enable the Company to make the necessary investments in generation and transmission that I have described while maintaining its creditworthiness and providing customers with the benefits of access to capital at a reasonable cost. These investments will be necessary to support reliable electric service in the state of Louisiana, to prepare Louisiana for the future, and to allow the state to remain an attractive location for large commercial and industrial operations, which help to drive economic development in the State.

Q29. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, at this time.

AFFIDAVIT

STATE OF LOUISIANA

PARISH OF JEFFERSON

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

That the above and foregoing is her sworn testimony in this proceeding and that she 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, she verily believes them to be true.

Laura K. Beauchamp

SWORN TO AND SUBSCRIBED BEFORE ME
THIS 28th DAY OF AUGUST 2023

NOTARY PUBLIC

My commission expires: at death

HARRY M. BARTON
Notary Public for the State of Louisiana
LA Bar No. 29751 - Notary ID 90845
Commission Issued For Life

Listing of Previous Testimony Filed by Laura K. Beauchamp

DATE	TYPE	SUBJECT MATTER	REGULATORY BODY	DOCKET NO.
06/03/2011	Settlement	Little Gypsy Securitization	LPSC	U-31894
07/07/2011	Direct	Carville-Calpine 2011 PPA	LPSC	U-32031
09/16/2011	Settlement	EGSL Fuel Adjustment Clause (1995-2004)	LPSC	U-27103
12/21/2011	Rebuttal	Carville-Calpine 2011 PPA	LPSC	U-32031
01/26/2012	Settlement	Retail Effects of FERC Opinion Nos. 468 and 468-A and Related Orders	LPSC	U-31099
03/02/2012	Settlement	Carville-Calpine 2011 PPA	LPSC	U-32031
02/15/2013	Direct	EGSL Base Rate Case	LPSC	U-32707
02/15/2013	Direct	ELL Base Rate Case	LPSC	U-32708
03/28/2013	Direct	ELL-Algiers 2013 Rate Case	CCNO	UD-13-01
09/27/2013	Settlement	MISO Implementation	LPSC	U-32675
02/18/2014	Rebuttal	ELL-Algiers 2013 Rate Case	CCNO	UD-13-01
03/22/2019	Adopting	ENOL 2018 Rate Case	CNO	UD-18-07
06/06/2022	Adopting	ELL Solar Portfolio and Green Tariff	LPSC	U-36190
02/28/2023	Direct	ELL Solar CCN Application	LPSC	U-36685
03/13/2023	Direct	ELL 3,000 MW Solar Application	LPSC	U-36697

BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

APPLICATION OF ENTERGY LOUISIANA, LLC FOR APPROVAL OF REGULATORY BLUEPRINT NECESSARY FOR COMPANY TO STRENGTHEN THE ELECTRIC GRID FOR STATE OF LOUISIANA	))))))	DOCKET NO. U-_____

EXHIBIT LKB-2

HIGHLY SENSITIVE PROTECTED MATERIAL

INTENTIONALLY OMITTED

AUGUST 2023