

**BEFORE THE
LOUISIANA PUBLIC SERVICE COMMISSION**

***IN RE: APPLICATION OF ENTERGY)
LOUISIANA, LLC FOR CERTIFICATION)
OF GENERATION AND TRANSMISSION)
RESOURCES AND FOR OTHER RELIEF)
PURSUANT TO THE COMMISSION'S)
LIGHTNING INITIATIVE)***

DOCKET NO. U-_____

DIRECT TESTIMONY

OF

SAMRAT DATTA

ON BEHALF OF

ENTERGY LOUISIANA, LLC

PUBLIC REDACTED VERSION

MARCH 2026

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. ANALYSIS OF THE CUSTOMER PROJECT	6
A. COSTS OF THE CUSTOMER PROJECT.....	11
B. BENEFITS OF THE CUSTOMER PROJECT	16
C. ADDITIONAL CONSIDERATIONS	21
D. EVALUATION OF TOTAL CUSTOMER IMPACT	25
E. EVALUATION OF NON-RENEWAL SCENARIO.....	30
III. CONCLUSION.....	34

EXHIBITS

Exhibit SD-1	List of Prior Testimony
Exhibit SD-2	Workbook (HSPM/AEO)

1

I. INTRODUCTION

2 Q1. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.

3 A. My name is Samrat Datta. My business address is 639 Loyola Avenue, New Orleans,
4 LA 70113. I am the Director of Advanced Network Planning for the System Planning
5 Organization at Entergy Services, LLC (“ESL”),¹ an organization that provides long-
6 term planning support for Entergy Louisiana, LLC (“ELL” or the “Company”), among
7 other EOCs.

8

9 Q2. ON WHOSE BEHALF ARE YOU SUBMITTING THIS DIRECT TESTIMONY?

10 A. I am submitting this Direct Testimony to the Louisiana Public Service Commission
11 (“LPSC” or “the Commission”) on behalf of ELL in support of its Application seeking
12 various relief related to the Customer’s Project, which is planned to be located in
13 Richland Parish, Louisiana, including certification of seven new CCCTs and certain
14 transmission facilities.

15

16 Q3. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL
17 BACKGROUND.

18 A. I graduated from Nagpur University, India, in 2001 with a Bachelor of Science in
19 Power Electronics Engineering. I received a Master of Engineering in Electrical
20 Engineering from the University of Texas at Austin, in 2002.

¹ ESL is an affiliate of the Entergy Operating Companies (“EOCs”) and provides engineering, planning, accounting, technical, and regulatory-support services to each of the EOCs. The five EOCs are Entergy Arkansas, LLC, ELL, Entergy Mississippi, LLC, Entergy New Orleans, LLC, and Entergy Texas, Inc.

1 In 2003, I was hired by ESL to work in the Technical Studies Group in the
2 Transmission Planning Department. I was involved in performing voltage stability,
3 transient stability, and electromagnetic transient analyses of the Entergy Transmission
4 System.² In 2010, I was appointed Supervisor of the Transmission Economic Studies
5 group. In that role, my responsibilities included interfacing with the Independent
6 Coordinator of Transmission, Network Service Customers, and the System Planning &
7 Operations organization in order to perform activities required by Federal Energy
8 Regulatory Commission (“FERC”) Orders 717 and 890. In 2014, I became Manager,
9 Commercial and Economic Planning, where I was responsible for the economic
10 analyses and identification of economic transmission projects that benefit the EOCs’
11 customers.

12 In 2019, I transitioned to a business role within ESL, focusing on innovation,
13 and, in 2020, into the Enterprise Planning Group, and then, into my current role as
14 Director of Advanced Network Planning for the System Planning Organization. In this
15 role, I am responsible for the development of integrated resource plans that are
16 designed to meet the company’s planning objectives of sustainability, affordability, and
17 reliability, and to provide strategic direction and business support to the EOCs
18 concerning the selection of supply-side resources. I am a registered Professional
19 Engineer in the State of Mississippi and a Senior Member of the Institute of Electrical
20 and Electronics Engineers.

21

² The Entergy Transmission System is comprised of all transmission facilities owned by the EOCs.

1 Q4. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY BEFORE A
2 REGULATORY COMMISSION?

3 A. Yes, including before this Commission. I have attached a list of prior testimony as
4 Exhibit SD-1.
5

6 Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

7 A. The purpose of my testimony is to provide an economic analysis of ELL's proposed
8 electric service to the hyperscale data center ("Project Evest" or the "Customer
9 Project") being built by Evest LLC (the "Customer") as discussed more fully in the
10 Company's Application, and its costs and benefits.

11 As I explain in more detail below, the economic analysis addresses the costs
12 and benefits to other ELL customers of the generation and transmission resources
13 needed to serve Project Evest, net of the Customer's contributions to the costs of those
14 resources during the initial 20-year term (the "Original Term") of the Customer's
15 electric service agreement ("ESA"). The analysis also addresses and incorporates the
16 benefit to all ELL customers of the Customer's payment of other ELL rates such as the
17 ELL Formula Rate Plan ("FRP"), the Fuel Adjustment Clause ("FAC"), and an
18 allocated share³ of other applicable riders including the Financed Storm Cost and
19 Resilience Riders during the ESA's Original Term. It also takes into account the
20 Customer's significant contributions towards energy efficiency programs, low-income

³ The allocated share to be paid by the Customer is determined by the allocation of these rider costs to the rate schedule under which the Customer will take service, as is the case for all customers taking service under this rate schedule.

1 customer support, and other charitable contributions directly impacting ELL's
2 customers.

3 Additionally, the economic analysis incorporates the results of a production
4 cost analysis that quantifies the impact of serving Project Evest on ELL's wholesale
5 variable supply costs. This change in the ELL variable supply cost resulting from the
6 resources and load associated with ELL's proposed service to Project Evest is
7 incorporated into the determination of the overall economic impact on ELL customers.
8 That overall economic impact is quantified in a metric defined below as the Total
9 Customer Impact ("TCI"). As explained in my testimony, the TCI represents the
10 overall costs and benefits to ELL's other customers of the incremental transmission,
11 capacity, and generation resources needed to serve the Customer Project presented in
12 the Company's Application during the ESA's Original Term, including the
13 quantification of the change in wholesale market variable supply costs.

14 Finally, I discuss the potential impacts on ELL's other customers in the event
15 that the Customer chooses not to renew the ESA at the end of the Original Term, such
16 that electric service from ELL to the Customer Project ends in 2048. I refer to these
17 costs as the "Terminal Costs."

18

19 Q6. PLEASE SUMMARIZE THE KEY CONCLUSIONS TO BE DRAWN FROM THE
20 RESULTS OF THE ECONOMIC ANALYSIS.

21 A. As I discuss in more detail below, after taking into account the benefits of Project Evest,
22 including:

1 (1) the substantial financial contributions that the Customer is making toward
2 the cost of the resources needed to serve the Customer Project, both through
3 direct financial payments (*i.e.*, Contributions in Aid of Construction
4 (“CIAC”)) and revenues received under the Customer’s ESA;

5 (2) the substantial payments by the Customer toward other ELL rates and riders
6 during the Original Term of the ESA (and the associated reduction of costs
7 paid by other ELL customers), including contributions towards fixed and
8 variable fuel costs; and,

9 (3) the contributions of the Customer to The Power to Care and energy
10 efficiency and weatherization programs;

11 And, weighing these benefits against the costs of Project Evest, including:

12 (1) the costs of the incremental generation, capacity, and transmission assets
13 and resources needed to serve the Customer’s load and their associated
14 revenue requirements;

15 (2) fixed fuel costs associated with combined cycle resources that are needed to
16 serve Project Evest; and,

17 (3) other costs related to serving Project Evest, such as the change in ELL’s
18 variable supply costs associated with serving the Customer’s Load;

19 The results of the analysis show that it is reasonable to expect that ELL’s other
20 customers will realize substantial net benefits from Project Evest during the term of the
21 ESA. In fact, these benefits to ELL’s other customers during the Original Term of the
22 ESA are large enough that, even considering the residual costs of the seven CCCTs,
23 transmission improvements, and other assets that ELL’s other customers will bear if

1 the Customer elects not to renew the ESA and service to the Customer Project ends in
2 2048 – *i.e.*, the Terminal Costs – ELL customers still realize an overall net benefit from
3 ELL’s proposed service to Project Evest. That is, when the TCI is reduced by the
4 Terminal Costs, the result is still a significant positive value – representing a
5 meaningful net benefit to ELL’s other customers. I provide the quantitative results,
6 and explain them in more detail, in my further testimony below.

7

8 **II. ANALYSIS OF THE CUSTOMER PROJECT**

9 Q7. PLEASE PROVIDE AN OVERVIEW OF THE ECONOMIC ASSESSMENT OF
10 THE CUSTOMER PROJECT.

11 A. As previewed above, the economic assessment included in my Direct Testimony
12 determines a metric called the Total Customer Impact—TCI—which establishes the
13 overall total costs and benefits to ELL’s other customers of the incremental
14 transmission and generation resources needed to serve the Customer Project presented
15 in the Company’s Application, including the quantification of the change in wholesale
16 market variable supply costs, over the Original Term of the ESA. Because of the
17 significant funding contribution the Customer is making toward the costs of these
18 resources, both through direct financial payments and through revenues under its ESA,
19 the analysis examines the costs of these resources net of those contributions. The
20 analysis then also addresses the benefits that flow to all ELL customers from the
21 significant new load associated with the Customer Project and the associated significant
22 contribution from the Customer, in connection with receiving service for that new load,
23 toward ELL’s FRP, FAC, and other riders such as the Financed Storm Cost and

1 Resilience Riders during the Original Term of the Customer’s ESA. Because the
2 Customer’s Project load will bear a significant portion of these costs that would
3 otherwise be borne by ELL’s other customers, the proposed service to Project Evest
4 will have the effect of greatly reducing the costs that other ELL customers pay for
5 electricity during the 20-year initial period of the ESA. The analysis also accounts for
6 the significant financial contributions that the Customer has agreed to make to
7 Entergy’s The Power to Care and to ELL’s energy efficiency and weatherization
8 programs.

9
10 Q8. DOES THE ECONOMIC ASSESSMENT INCLUDE EVALUATION OF THE
11 EFFECTS OF PROJECT EVEST ON ELL’S VARIABLE SUPPLY COSTS?

12 A. Yes. The incremental resources that ELL proposes to develop to serve the Customer’s
13 Project Evest load, which are described in the Company’s Application—*i.e.*, the seven
14 combined cycle combustion turbine (“CCCT”) generators totaling approximately
15 5,278MW (the “Proposed Generators”) and the three battery storage resources
16 (“Battery Storage Facilities”) resources totaling approximately ■■■MW⁴ (collectively
17 the “Proposed Resources”)—will help reduce the variable supply cost that ELL will
18 incur in the Midcontinent Independent System Operator, Inc. (“MISO”) market. This
19 happens because, due to the highly efficient technology of these modern CCCT

⁴ The three BESS projects consist of two 200MW BESS projects that each share a 200MW point of interconnection to the grid with a 200MW solar project, and a stand-alone ■■■MW battery project. The operation of each 200MW battery that is part of the Proposed Resources portfolio is expected to be somewhat impacted by the shared 200MW interconnection with the 200MW solar project. This impact, with respect to both the charge and discharge operations and the capacity accreditation, was accounted for in both the production cost model and the capacity benefit calculation for purposes of the economic assessment.

1 resources, their operating cost is low relative to the market. This, in turn, means that
2 more of the revenue they receive from the MISO market represents profit, or energy
3 margins. These energy margins are credited back to ELL customers through the FAC,
4 reducing ELL customers' variable costs – and all else equal, reducing their electric
5 bills.

6 The production cost analysis component of the overall economic assessment
7 uses a production cost model to measure the change in ELL's variable supply costs that
8 results from the addition of both the Customer's Load, on the one hand, and the addition
9 of the Proposed Resources and the transmission upgrades that ELL is proposing to
10 develop in connection with serving the Customer's load ("Proposed Transmission
11 Projects"), on the other. The production cost model measures this change in variable
12 costs by simulating the commitment and dispatch of resources in the wholesale energy
13 market over the entire 20-year Original Term of the ESA.

14

15 Q9. HOW DOES THE ECONOMIC ASSESSMENT ARRIVE AT THE TCI – THAT IS,
16 THE OVERALL COSTS AND BENEFITS, OVER THE TERM OF THE ESA, OF
17 THE PROPOSED RESOURCES AND THE PROPOSED TRANSMISSION
18 PROJECTS?

19 A. The assessment starts with the creation of a Base Case, which represents a "status quo"
20 scenario in which ELL does not incur the costs or realize the benefits related to the
21 addition of the Proposed Resources or the Proposed Transmission Projects and
22 foregoes the opportunity to serve Project Evest. This Base Case is then compared to a
23 Change Case, in which it is assumed that the Company extends service to the

1 Customer's Project Evest load and develops the Proposed Resources and Proposed
2 Transmission Projects. The Change Case includes the revenues received from the
3 Customer pursuant to the ESA, including the Customer's allocated share of the FRP,
4 the FAC, and the storm and resilience riders, as well as the Customer's contributions
5 to ELL's energy-efficiency initiatives and The Power to Care. The Change Case also
6 captures the change in variable supply cost – including the benefits of the energy
7 margins from the Proposed Generators and the variable costs of serving the Customer's
8 Project Evest Load – as derived from the production cost model results. The difference
9 between the total costs and benefits in the Base Case and the Change Case represents
10 the total net cost or benefit of the Proposed Resources and Proposed Transmission
11 Projects – and is quantified in the TCI metric to inform the Commission's decision of
12 whether these resources are in the public interest.

13

14 Q10. ARE THERE ANY OTHER COMPONENTS OR STEPS TO YOUR ECONOMIC
15 ASSESSMENT?

16 A. Yes. In the final step, I develop a scenario that contemplates the potential consequences
17 for ELL's other customers in the event that the Customer chooses not to renew the ESA
18 at the end of the Original Term. As noted above, I have termed the costs to ELL
19 customers from this "nonrenewal" scenario, the Terminal Costs. In this "nonrenewal"
20 scenario, it is assumed that, after the Original Term ends in 2048, ELL would no longer
21 serve the Project Evest load. However, in this scenario, all of the Proposed Generators
22 would still have remaining commercial useful lives and reasonably would be expected
23 to continue to be available to serve load. Notably, in 2048, when service to the

1 Customer would end in a nonrenewal scenario, all of the combined cycle resources in
2 ELL’s currently existing generation fleet would be nearing at least 30 years of operating
3 life, with some having operated for more than 45 years and rapidly approaching the end
4 of their commercially useful lives. But there is a very strong likelihood that the
5 Proposed Generators, which would be nearing 20 years of operation, would continue
6 to be economic resources in the MISO system. That set of circumstances means that
7 there would likely be an opportunity to use the Proposed Generators or the Battery
8 Storage Facilities to serve ELL’s other customers. Nevertheless, for purposes of this
9 “nonrenewal” scenario of my economic assessment, I do not consider the potential
10 repurposing of any of the Proposed Resources and the associated customer savings they
11 may be able to generate prospectively from 2048 on. Rather, in this “nonrenewal”
12 scenario, I assume that ELL’s customers would bear the entire cost of the residual net
13 book value of the Proposed Generators, the Battery Storage Facilities, and the Proposed
14 Transmission Projects. Even applying these conservative assumptions, however, the
15 results of the economic assessment show that the benefits of serving the Customer
16 during the 20-year Original Term of the ESA – the TCI – significantly outweigh the
17 expected residual costs to ELL’s other customers – the Terminal Costs - in this
18 “nonrenewal” scenario.
19

1 **A. Costs of the Customer Project**

2 Q11. WHAT GENERATION COSTS WERE TAKEN INTO CONSIDERATION IN THE
3 ECONOMIC ASSESSMENT?

4 A. The Company's economic assessment includes the costs of the Proposed Generators
5 and the Proposed Battery Storage Facilities, which are discussed in more detail in the
6 Direct Testimony of Company witnesses Norman Grunden, Robert Fluth, and Laura
7 Beauchamp. These costs include, most significantly, the revenue requirements for the
8 seven CCCTs and the three Battery Storage Facilities, including reasonable estimates
9 of items such as firm fuel pipeline demand charges (where applicable), property taxes,
10 and accumulated deferred income taxes. [REDACTED]

11 [REDACTED]
12 [REDACTED]

13 Moreover, the economic assessment captures ELL's assumed fixed and variable
14 operations and maintenance ("O&M") costs over the life of Proposed Generators.

15

16 Q12. WHAT OTHER SYSTEM COSTS DID YOUR ECONOMIC ASSESSMENT TAKE
17 INTO ACCOUNT?

18 A. My economic assessment also quantified the change in ELL's variable supply costs
19 from serving the Project Evest load and the Proposed Resources, as noted above. I
20 calculated the yearly change in variable supply cost from adding service to Project
21 Evest and from the development of the Proposed Resources for each year of the
22 Original Term of the ESA.

23

1 Q13. PLEASE DESCRIBE THE PRODUCTION COST ANALYSIS AND THE
2 ASSUMPTIONS THAT WENT INTO THAT STUDY IN MORE DETAIL.

3 A. To capture the change in the variable supply cost, or more simply stated the fuel and
4 purchased power cost, resulting from the addition of the Customer Load and the
5 Proposed Resources, my team at my direction performed a production cost analysis, as
6 noted above. The production cost analysis was conducted using EPIS, Inc.'s
7 AURORA⁵ model that simulates the security constrained unit commitment and
8 economic dispatch in a Day 2 energy market such as MISO and incorporates assumed
9 heat rates in conjunction with gas price forecasts, gas delivery costs, and an emissions
10 price forecast. It also incorporates assumptions about the transfer limits on the
11 transmission system and enforces these to capture their effects on variable supply
12 costs.

13 The AURORA model is the primary production cost tool used to perform MISO
14 energy market modeling and long-term variable supply cost planning for ELL.
15 AURORA simulates energy market operations using hourly demand and individual
16 resource operating characteristics in a chronological dispatch algorithm. The
17 AURORA model incorporates existing resource cost and performance metrics,
18 including projected unit deactivation dates, forecasted hourly load, reserve margin

⁵ ESL has used AURORA, developed by EPIS, Inc., for MISO energy market modeling and long-term variable supply cost planning since April 2011. AURORA has been used in the industry for power market modeling and price forecasting since 1997. Its use has grown steadily for over 20 years, and it is now used by over 80 organizations worldwide. These organizations range from large investor-owned utilities to small public utilities. Results from AURORA have been used in rate cases, integrated resource plans and other regulatory proceedings. Other organizations that use AURORA include regulators and planning authorities (such as the North American Electric Reliability Corporation), traders, independent power producers and developers, research institutions, and electric industry consultants.

1 requirements, variable incremental resource cost and performance metrics, fuel
2 commodity price forecasts and fuel transportation adders, and projected environmental
3 compliance costs (*e.g.*, NO_x and CO₂ emissions costs, etc.). The AURORA model is
4 populated with a database of generation resources across the electric grid and their
5 operating characteristics. Over time, the fleet is assumed to change as resources retire
6 and are replaced. In particular, the resource fleets are assumed to change over time to
7 reflect EOC business plan projections, which are informed by EOC integrated resource
8 plans and other resource planning efforts, including deactivation analyses. The
9 remainder of the MISO market is assumed to change over time consistent with
10 projections from third party consultants, who generally use models that optimize
11 capacity expansion to inform their projections. Assumptions such as the gas price
12 forecast, the emission price forecast, the load forecast, the existing and future resources
13 included in both the Entergy system and the remainder of the MISO system were
14 sourced from ELL’s 2026 Business Plan – (“BP26”).

15 The AURORA Change Case included the hourly load forecast for the Customer
16 as the load ramps up, consistent with the ESA terms, from the end of 2026 through the
17 duration of the Original Term of the ESA. The Change Case also included the resources
18 that are needed to serve the Customer’s load—the Proposed Generators and the
19 Proposed Battery Storage Facilities⁶ -- all of which were activated in the model starting
20 from their current estimated Commercial Operations Dates (“CODs”). In addition, the

⁶ See *supra* note 1. Because of the 200 MW interconnection shared with the 200 MW solar projects for each of the two 200 MW BESS projects, any impacts to the discharge operation of the BESS resulting from the solar production from the 200 MW solar resources were captured in the production cost model.

1 Change Case also included the changes in zonal transmission transfer capabilities and
2 the changes to the Voltage and Local Reliability (“VLR”) commitment levels⁷ resulting
3 from the Proposed Transmission Projects.

4

5 Q14. WHAT OTHER COSTS WERE INCLUDED IN YOUR ANALYSIS?

6 A. As explained in more detail in Company witness Kenroy Hinkson’s Direct Testimony,
7 the Company will incur expenses to buy credit insurance or related products that protect
8 ELL’s customers from a default of Evest’s debt.⁸ The premium associated with such
9 credit products has been included in my economic assessment.

10 As Company witness Ryan Jones explains in his Direct Testimony, differences
11 in the schedule between the as-billed revenues from the Customer and recognition of
12 those revenues in ELL’s Formula Rate Plan revenue, and the Company’s proposed
13 Deferral Proposal Framework to address and mitigate these effects, result in a
14 regulatory liability associated with the deferred Customer revenues for ELL. The
15 benefits, shown as a negative cost, of the return on this deferred regulatory liability
16 were also included in my economic assessment.

⁷ MISO operates certain transmission constrained regions in the southern half of the MISO South subregion, called load pockets, in a manner that enforces security requirements that exceed those of the NERC operational reliability standard. Because, unlike in the unconstrained portion of the system, the simultaneous loss of a generation resource and a transmission element in the load pockets was often observed to result in voltage and thermal constraints that could not be mitigated without the commitment of another local unit in the load pocket, MISO (consistent with how ESL operated these load pockets prior to ELL joining MISO) has implemented commitment guides in these load pockets to ensure reliable electric service during the simultaneous outage of a transmission branch and a generation resource. These commitment rules, known as VLR operating guides ensure that resources in the load pocket are committed as necessary to maintain the reliability of this part of the grid even though such local resources may not otherwise have been committed economically.

⁸ The details of these products are discussed in the Direct Testimony of Company witness Kenroy Hinkson.

1 Q15. WHAT TRANSMISSION COSTS WERE TAKEN INTO CONSIDERATION IN
2 THE ECONOMIC ASSESSMENT?

3 A. The addition of the Customer's load requires transmission upgrades, as detailed in the
4 Direct Testimony of Company witness Daniel Kline. As Mr. Kline and Mr. Jones
5 discuss in more detail in their respective Direct Testimonies, the Customer is directly
6 funding the capital cost of many of these transmission upgrades. The capital cost of
7 some of these upgrades, however, will be included in ELL customer rates – namely,
8 the West Fork Creek to St. Landry 500 kV line and the St. Landry 500 kV switching
9 station, totaling \$1.462 Billion. Accordingly, I included the annual revenue
10 requirement associated with these transmission projects for the duration of the ESA in
11 the economic assessment to determine the TCI metric. Because the cost of this project
12 is expected to be included in ELL's FERC-jurisdictional transmission rates and
13 allocated to ELL transmission customers who take service in the ELL Transmission
14 Pricing Zone ("TPZ"), the transmission revenue requirement associated with the
15 project was adjusted down to reflect only the approximately [REDACTED] % portion of the cost
16 of the project that will be borne by the Company's retail customers. The O&M costs
17 associated with these new transmission projects, which were included in the economic
18 assessment, were also adjusted down, in similar fashion.

19

1 contributions are explained in more detail in Mr. Jones' Direct Testimony. The
2 Customer's revenue contributions to these riders helps reduce the revenue contributions
3 to these riders that are required from the rest of ELL's customers – which is a savings
4 to those other ELL customers.

5

6 Q17. DOES THE ECONOMIC ASSESSMENT CAPTURE THE CUSTOMER'S
7 CONTRIBUTIONS TO THE FIXED AND VARIABLE FUEL COSTS
8 ASSOCIATED WITH SERVING THE PROJECT EVEST LOAD?

9 A. Yes. The economic assessment also captures the Customer's contributions towards the
10 fuel costs incurred to serve the Project Evest load, including: (1) contributions to the
11 FAC, which include both (a) the average fuel costs associated with system generation
12 to serve the firm portion of the Customer's Load and (b) the marginal fuel costs paid
13 by the Customer for the non-firm portion of its load during the Commissioning Period
14 (which is discussed below); and (2) contributions towards the costs of the fixed fuel
15 demand charges associated with the Proposed Generators and also towards similar
16 charges associated with all existing and future gas resources forecasted to be included
17 in ELL's resource fleet.

18 Further, because I understand that Evest LLC and Laidley LLC (the customer
19 that is developing the Laidley Project)¹⁰ are affiliated, and given the size of the load
20 associated with these projects, I undertook to determine the impact of the Evest LLC

¹⁰ The "Laidley Project" is a planned data center in Richland Parish, Louisiana. *See In re: Application of Entergy Louisiana, LLC for Approval of Generation and Transmission Resources*, LPSC Docket No. U-37425 (August 29, 2025) (approving resources necessary to support service to the Laidley Project).

1 load on ELL's *other* customers. To accomplish this, the economic analysis considered
2 the increase in average fuel cost payments from Project Laidley as a result of the
3 addition of service for Project Evest. In my economic assessment, these particular
4 additional costs to Project Laidley that flow from ELL's service to Evest are treated in
5 the same manner as costs borne by Project Evest – that is, all else equal, they increase
6 the benefits to other ELL customers (as they are borne by Evest or Evest's affiliate).
7 In addition, my analysis also captures as costs to Evest (and benefits to all other ELL
8 customers) that result from Project Laidley's contribution to additional fixed fuel
9 demand charges associated with ELL's service to Project Evest, as well as Project
10 Evest's contributions to such charges for the seven Proposed Generators and existing
11 and future gas resources in ELL's fleet.

12

13 Q18. ARE THERE ANY EFFECTS ON ELL'S FUEL COSTS THAT ARISE FROM
14 ADDING SERVICE TO THE CUSTOMER THAT ARE NOT CAPTURED IN
15 YOUR ECONOMIC ASSESSMENT?

16 A. Yes. Initial discussions with pipeline midstream companies have revealed that there
17 are potential synergies associated with the pipeline reservations for the three Proposed
18 Generators that will be located in south Louisiana ("Pointe Coupee Units 1-3") because
19 at least one other future CCCT in ELL's 2026 Business Plan, which is slated for
20 commercial operation in 2030, is located in the same region. That is, by virtue of
21 having to reserve pipeline capacity for the Pointe Coupee Units 1-3, the fixed demand
22 charge for the gas supply for the 2030 ELL Business Plan CCCT will likely be lower
23 than it would have been if ELL were required to reserve pipeline capacity for this 2030

1 ELL Business Plan CCCT in isolation. The economic assessment is conservative in
2 this respect, however, in that excludes this benefit in tabulating the quantitative results.

3

4 Q19. WERE ANY OTHER TRANSMISSION BENEFITS CONSIDERED IN YOUR
5 ECONOMIC ASSESSMENT?

6 A. No. Above, I mentioned that my economic assessment captures the variable supply
7 cost effects of the improvements to the zonal transfer capabilities resulting from the
8 Proposed Transmission Projects. Other than that, no other transmission benefits were
9 included in this economic assessment. While the Proposed Transmission Projects,
10 particularly the West Fork Creek to St. Landry 500 kV project and the St. Landry
11 500 kV switching station, are reasonably expected to provide reliability and resilience
12 benefits to ELL customers as discussed in the Direct Testimony of Mr. Kline, these
13 benefits were not captured in the economic assessment.

14

15 Q20. ARE THERE ANY ECONOMIC BENEFITS ASSOCIATED WITH SERVING
16 PROJECT EVEST THAT WERE NOT CAPTURED IN YOUR ECONOMIC
17 ANALYSIS?

18 A. Yes. In addition to offsetting the costs of the Proposed Resources mentioned above,
19 and as explained further in Company witness Ms. Beauchamp's Direct Testimony,
20 revenues from the Customer will also offset the costs of two other resources that ELL
21 is already planning and pursuing independently from the addition of service to Project
22 Evest — a capacity credit purchase agreement with the Bayou Cove facility that is one
23 of the agreements at issue in LPSC Docket No. U-37872, *In re: Application of Entergy*

1 *Louisiana, LLC for Approvals Relating to Various Purchase Agreements, and for*
2 *Associated Cost Recovery, and a nuclear uprate being pursued at the Company's*
3 *Waterford 3 Steam Electric Station that is at issue in LPSC Docket No. U-37677, In*
4 *re: Application of Entergy Louisiana, LLC for Approval to Complete Uprate Project at*
5 *the Waterford 3 Nuclear Station, for Cost Recovery, and Other Associated Relief.*

6 Because these additional generation resources are not directly related to the
7 Customer's load addition and would have been executed by ELL even without the
8 Customer Project, my economic assessment incorporates these resources in both the
9 Base Case and the Change Case (including both cases of the AURORA model), and,
10 thus, does not attribute the effects of these two resource additions to the Customer
11 Project. Although the effects of these two resources are effectively excluded from the
12 results of the economic assessment by being included in both the Base Case and the
13 Change Case, the Customer contributions to these resources are treated differently.
14 Because the Customer's contributions to these two independently planned resources
15 arise only if ELL proceeds with extending service to Project Evest, the economic
16 assessment captures those Customer contributions to the costs of these resources in the
17 quantitative results by way of estimated revenues from the Customer.

18

1 **C. Additional Considerations**

2 Q21. HOW WERE ANY CAPACITY IMPACTS ASSOCIATED WITH ELL'S
3 ADDITION OF SERVICE TO THE CUSTOMER'S PROJECT INCORPORATED
4 INTO YOUR ECONOMIC ASSESSMENT?

5 A. The economic model incorporates these capacity impacts in two ways. On the supply
6 side, the assessment captures the change in ELL's capacity position resulting from the
7 addition of the Proposed Resources and the corresponding accredited capacity.¹¹ On
8 the demand side, the economic assessment incorporates the impact on ELL's capacity
9 position arising from the Planning Reserve Margin Requirement associated with the
10 Customer's Project Evest load. The assessment therefore reasonably accounts for the
11 net change in ELL's capacity position associated with extending service to Project
12 Evest over the full Original Term of the ESA. Any net impact in ELL's capacity
13 position resulting from serving Project Evest is quantified in the analysis at the cost of
14 a long-term capacity resource (*i.e.*, the levelized cost of a combustion turbine ("CT")).

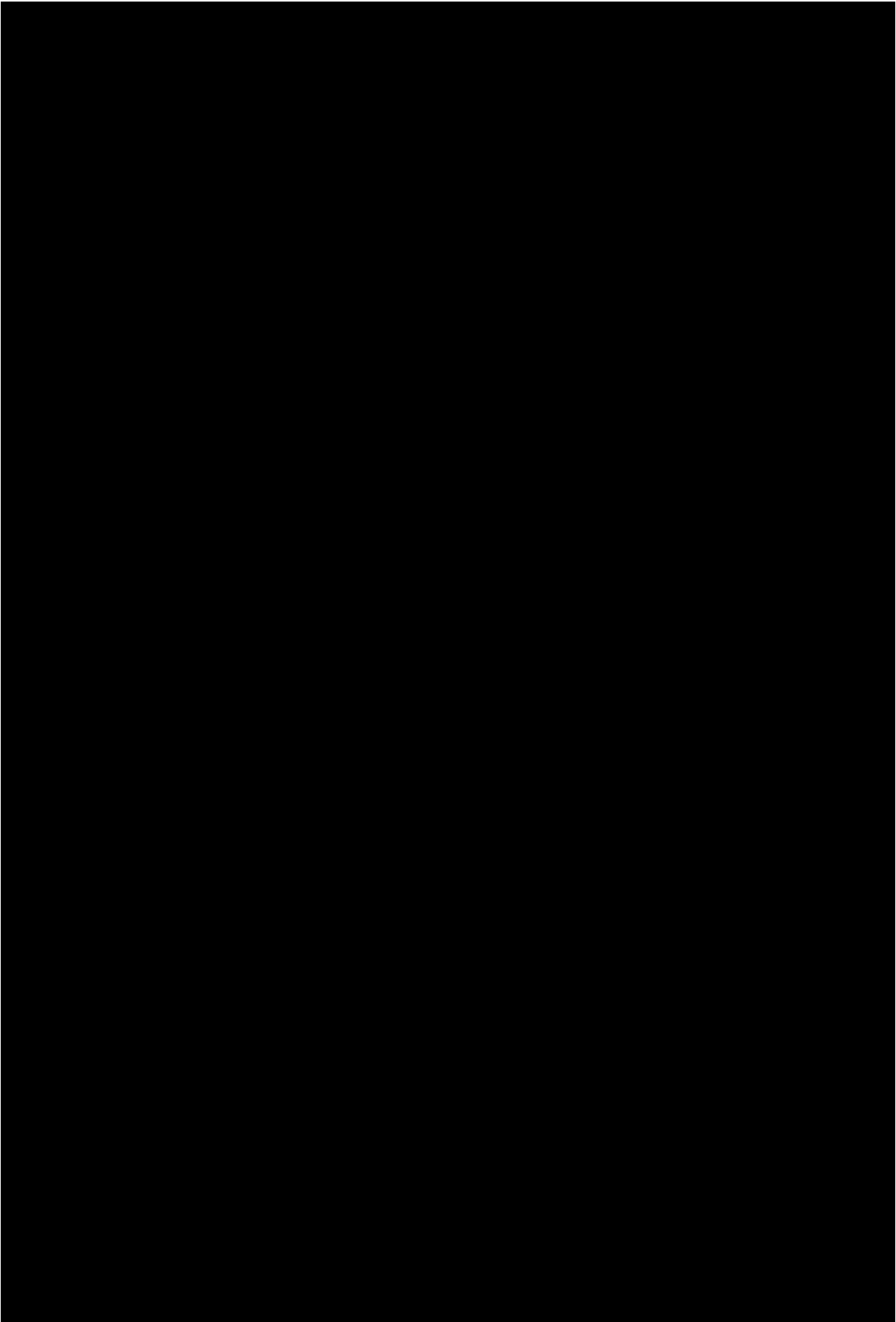
15

16 Q22. EARLIER IN YOUR TESTIMONY YOU REFER TO NON-FIRM LOAD. WHAT
17 DO YOU MEAN BY NON-FIRM LOAD?

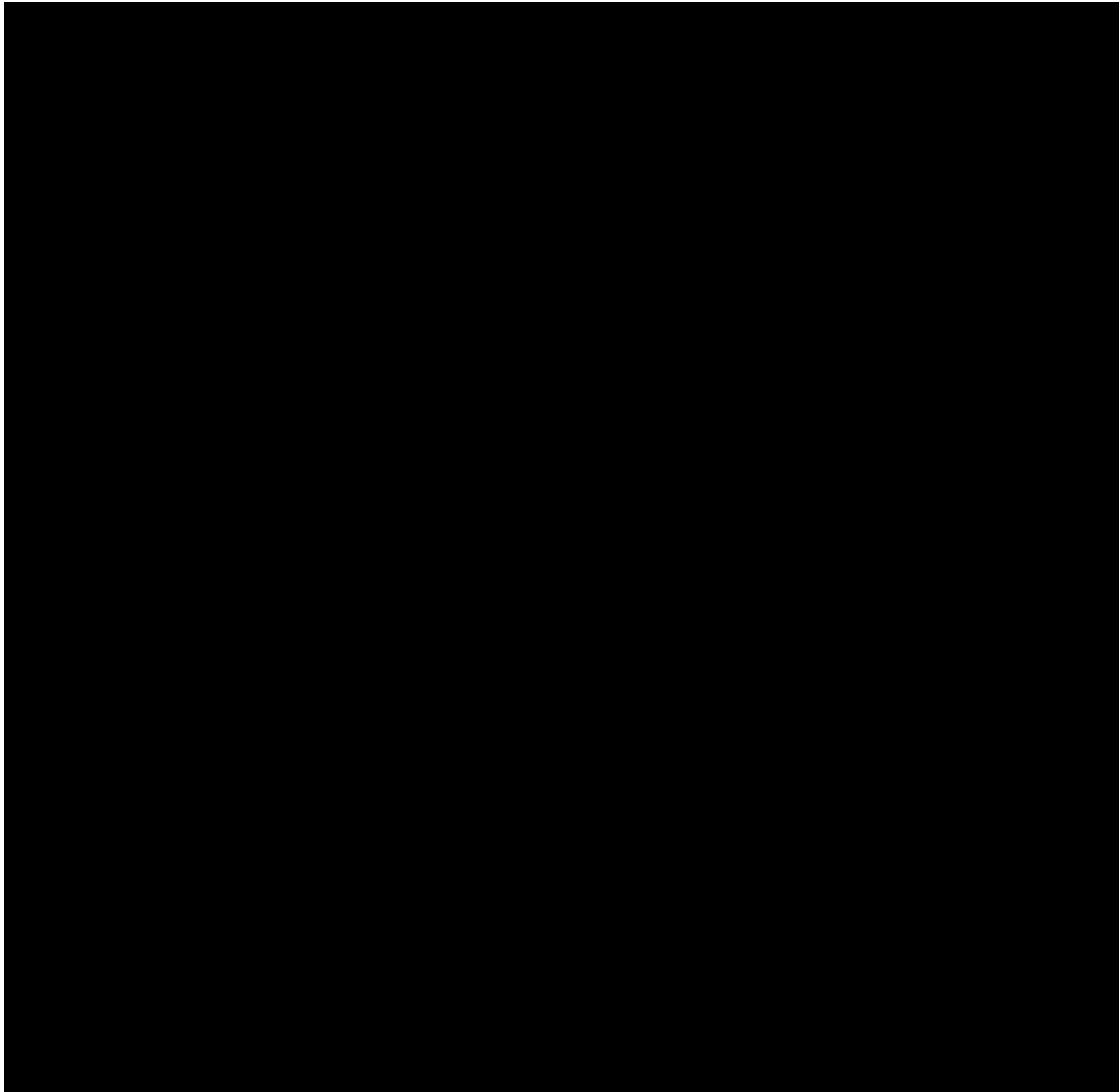
18 A. The amount of service that the Customer will be permitted to take from ELL's system
19 at any point in time during the term of the ESA was an issue that was negotiated
20 between the parties, with ELL's goal being to maintain the same level of supply
21 adequacy and reliability in the Base Case and the Change Case. [REDACTED]

¹¹ See *supra* note 4.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16



17 Q23. WERE THERE ANY OTHER BENEFITS ASSOCIATED WITH THE
18 CUSTOMER'S PROJECT THAT WERE ALSO INCORPORATED INTO YOUR
19 ANALYSIS?

20 A. Yes. As described in the testimony of Company witness Elizabeth Ingram, the
21 Customer will also contribute significant funds towards the Company's The Power to

1 Care¹² program, and an energy efficiency¹³ program. The Customer has committed to
2 provide contributions to The Power to Care of \$3 million annually, and there is
3 additional \$3 million annual match that has been committed by the Company's
4 shareholders. The Customer has also committed to provide a \$7 million annual
5 contribution towards various energy efficiency programs. Together, these
6 contributions total \$13 million annually for the 20-year Original term of the ESA, or
7 \$260 million in total over this period. This amount is captured as a benefit in my
8 economic analysis.

9

¹² Entergy's The Power to Care program is an emergency bill payment assistance fund for older adults (age 60+) and individuals with disabilities who are facing financial hardships. The program has provided emergency bill payment assistance for approximately 13,000 customers annually across all EOCs and is funded by donations from Entergy customers, employees, and matched by shareholders, with all donations going directly to bill assistance through local nonprofit agencies. The Power to Care program is a lifeline for Entergy's most vulnerable customers, who often struggle financially. The Power to Care program helps protect the credit ratings of low-income seniors and disabled individuals. Furthermore, by reducing the number of write offs, The Power to Care helps reduce costs for all customers.

¹³ The Customer's contribution to the energy efficiency program is expected to result in a significant expansion in the number of low-income homes that can be weatherized each year, potentially moving from hundreds of homes to thousands. Increased funding also will likely eliminate or drastically reduce wait times for low-income residents who need assistance. The program also could potentially offer more extensive upgrades beyond weatherization.

1 **D. Evaluation of Total Customer Impact**

2 Q24. HOW DID YOUR ECONOMIC ASSESSMENT COMPARE THE COSTS AND
3 BENEFITS OF THE GENERATION AND TRANSMISSION RESOURCES AND
4 THE REVENUES RECEIVED FROM THE CUSTOMER DURING THE TERM OF
5 THE ESA?

6 A. My economic assessment determined the net impact of the Customer Project on the rest
7 of ELL's customers during the Original Term of the ESA by incorporating the effects,
8 including both benefits and costs, over that period, of the following:

- 9 • Customer's revenue contributions during the 20-year Original Term of the
10 ESA¹⁴;
- 11 • Customer's contributions towards fixed and variable fuel costs;
- 12 • Customer's contributions toward the resilience and storm cost recovery riders;
- 13 • The capacity costs and benefits associated with the addition of the Proposed
14 Resources and with the addition of the Customer's Project Evest load;
- 15 • The Customer's contribution to an energy efficiency program and The Power
16 to Care.
- 17 • The revenue requirements of the Proposed Resources;
- 18 • The fixed fuel demand charge for the seven Proposed Generators;

¹⁴ My economic analysis omits both the costs and benefits of a relatively small amount of non-firm Customer load for a five-month period during the Commissioning Period in early 2031, as ELL and the Customer agreed to the addition of this non-firm load close in time to the date of the filing of the Company's Application in this matter. The effect of this non-firm load addition on my economic assessment, given its relative size and duration, is immaterial to the results.

- 1 • The revenue requirement associated with the Proposed Transmission Projects;
2 and
3 • The variable supply costs incurred by ELL in the wholesale market as a result
4 of the addition of the Customer Load and Proposed Resources.

5 These benefits and costs over the 20-year Original Term were netted to arrive at a total
6 net effect on ELL's other customers; this is the TCI.

7

8 Q25. PLEASE DESCRIBE IN MORE DETAIL HOW YOUR ECONOMIC
9 ASSESSMENT MEASURED THE EFFECT ON ELL'S VARIABLE SUPPLY
10 COSTS OF SERVING THE CUSTOMER LOAD AND ADDING THE PROPOSED
11 RESOURCES AND THE PROPOSED TRANSMISSION PROJECTS?

12 A. As mentioned before, the AURORA production cost model was used for the variable
13 supply cost portion of the economic assessment. The variable supply cost metric
14 effectively captures various inputs into ELL's MISO settlement statement and has the
15 following five components:

- 16 1. Load payments: These are required payments to MISO by Load Serving Entities
17 for demand served from the MISO markets. Load payments are priced at the
18 applicable MISO load zone LMPs.
- 19 2. Generator revenue: These payments to the EOC equal the MW production of
20 the generator in every hour priced at the generator bus LMP.
- 21 3. Generator Cost: These Costs represent the fuel, variable O&M, emission costs,
22 and start-up costs of the EOC generating resources.

- 1 4. Make Whole Payments (“MWP”) realized by an EOC: When a generator is
2 called upon to commit (and dispatch) by MISO, either because the generator is
3 the economic choice or because of a reliability need in the transmission system,
4 MISO ensures that the revenue received by the generator is adequate to
5 compensate the generator for its marginal cost of dispatch. If the cost of running
6 the generator is greater than the revenues the generator can realize from the
7 LMP at the generator bus (which might be the case if the generator is called
8 upon to commit and/or dispatch to alleviate reliability constraints), then the
9 difference between the generator cost and the revenues realized from the
10 generator bus LMP is credited to the generator; this is known as an MWP.
- 11 5. EOC allocation of uplift charges: The Costs associated with making generator
12 Make Whole Payments are allocated to all loads in MISO on the basis of load-
13 ratio share; these charges are known as uplift. An EOC’s allocation of uplift
14 charges, therefore, may not directly correspond to any Make Whole Payments
15 received by the EOC’s generators.¹⁵

16 The variable supply cost (“VSC”) metric is formulated in the following manner:

17 VSC = EOC load payments – EOC generator revenue + EOC generator cost – EOC
18 Make Whole Payments + EOC’s allocation of uplift charges

19 The Original Term of the ESA extends to 2048, but the BP26 AURORA model
20 that formed the basis of the production cost analysis extends only to 2045. To address
21 this discrepancy, the compounded annual rate of change of the variable supply cost

¹⁵ Another component of the variable supply cost metric is FTR revenues. For the sake of brevity, ELL has omitted this component from this discussion.

1 between the Base Case and the Change Case described above for the last 10 years of
2 the production cost simulation was extrapolated to derive the production cost effects
3 during the period 2046 to the end of the Original Term in 2048. My economic
4 assessment captured this change in the yearly VSC in the ELL system, using the
5 reference gas price forecast assumed in the Company's BP26 Technology Assessment.

6

7 Q26. WHAT WERE THE RESULTS OF YOUR ECONOMIC ASSESSMENT?

8 A. The results of my economic assessment, represented by the TCI metric, are detailed in
9 a workbook attached as HSPM and AEO Exhibit SD-2. Those results (summarized in
10 Table 1 below) show that the present value of the savings to ELL's other customers
11 from the extension of service to Project Evest over the course of the 20-year Original
12 Term of the ESA, including the costs and benefits of the Proposed Resources and the
13 Proposed Transmission Projects and all the other elements I discuss above, are \$1,413
14 million (2026 dollars). On a nominal dollar basis, the benefits resulting from Project
15 Evest through the end of the ESA add up to \$2,673 million. The following table
16 summarizes the key costs and benefits that, when combined, lead to this net benefit
17 result:

18

1

Table 1: Net Benefit to Other ELL Customers (HSPM/AEO)

Total Customer Impact - Benefit/(Cost)		
Total Customer Impact - Benefit/(Cost)	NPV 2026\$ \$1,413,598,268	
Benefits		
	PV 2026\$	
Evest LLC (ESA) Revenue		
Resilience Plan Recovery Charge		
Financed Storm Cost Riders		
Storm Cost Offset Riders		
Power to Care - Customer Commitments		
Energy Efficiency - Customer Commitments		
Evest LLC Fuel Revenue (Firm)		
Evest LLC Ramp Fuel Revenue (Non-Firm) - LMP		
Total Laidley LLC Fuel Burden		
Evest LLC + Laidley LLC - Recovered Fixed Fuel Demand - Evest LLC Resources		
Evest LLC Only - Recovered Fixed Fuel Demand - Rest of Fleet		
Capacity Benefit/(Cost)		
Total Benefit		\$29,864,806,183
Costs		
	PV 2026\$	
Evest LLC Variable Supply Cost		
Gas Generation Revenue Requirement		
Gas Generation Fixed and Variable O&M		
Battery Costs		
Transmission Revenue Requirement		
Other Incremental O&M		
Credit Insurance Premiums		
Return on Deferred Revenue Liability		
Richland 1 (3/30/2030)		
Richland 2 (3/30/2030)		
Richland 3 (10/31/2030)		
Richland 4 (10/31/2030)		
Point Coupee 1 (12/31/2030)		
Point Coupee 2 (12/31/2030)		
Point Coupee 3 (6/30/2031)		
Total Costs	\$28,451,207,915	

2

1 one potential outcome of this nonrenewal is that ELL would continue to use these assets
2 to serve ELL’s other customers. However, for purposes of my analysis, I made the
3 conservative assumption that ELL would elect to simply absorb the Terminal Costs
4 should the Customer not renew the ESA ahead of its expiration in 2048 and that ELL
5 could not utilize these assets following nonrenewal by the Customer. For reasons I
6 explain below, this is a highly unlikely scenario. But with this assumption, my
7 economic assessment presents a highly conservative view of the benefits and costs to
8 ELL customers in the post-ESA period.

9 With respect to the Proposed Transmission Projects not funded directly by the
10 Customer, it is similarly unlikely that the resources would no longer serve any purpose
11 in the event the Customer did not renew the ESA. Mr. Kline discusses the significant
12 system benefits that are available to all customers from these transmission investments.
13 As Mr. Kline discusses in more detail, the West Fork Creek – St. Landry 500 kV line
14 adds significant capability to transfer power across the transmission system in
15 Louisiana, which adds operational flexibility to schedule generation maintenance
16 outages, to manage forced outages in the transmission system or in the resource fleet,
17 and to help maintain the reliability of the grid during and in the aftermath of extreme
18 weather events such as hurricanes and winter storms. As Mr. Kline also explains, the
19 added transmission capacity will improve the resilience of the transmission network
20 while also enabling the deliverability of generators, including new resources, including
21 new renewable resources, as they seek interconnection to the transmission system in
22 the future. Further, as Mr. Kline observes, the line may also help to improve speed to
23 market for the interconnection of prospective large load additions, and any generating

1 resources needed to serve such customers in Louisiana. Therefore, even in a non-
2 renewal scenario for Project Evest, I do not believe that this transmission investment
3 would no longer have value beyond 2048.

4 Nonetheless, the critical point remains that, even in this conservative scenario,
5 ELL's other customers are expected to benefit substantially from the Customer's
6 Project. Specifically, after adjusting my TCI analysis for these impacts (*i.e.*, netting
7 the Terminal Costs from the TCI), the resulting net present value to ELL's other
8 customers in 2026 Dollars is approximately \$437 million.

9

10 Q28. WHAT PURPOSE MIGHT THE SEVEN PROPOSED GENERATORS SERVE
11 AFTER THE ASSUMED TERMINATION OF THE ESA IN YEAR 2048?

12 A. At the conclusion of the Original Term of the ESA, the seven Proposed Generators will
13 continue to be functional for the benefit of ELL's other customers for the remainder of
14 these resources' commercial life. The production cost analysis incorporated in my
15 economic analysis showed that all seven combined cycle plants are forecasted to
16 produce significant energy margin in every year of the term of the ESA. In the time-
17 period beyond the end of the ESA, I expect that these efficient CCCTs will continue to
18 remain economic resources in the MISO system, thus benefiting ELL's customers by
19 generating energy margin. That is, the system heat rate in the post-ESA period can
20 continue to be expected to be higher than that of the seven CCCTs, thus helping to
21 lower the fuel cost to all of ELL's customers.

22 Further, if they remain operational, all of the existing combined cycle facilities
23 currently operating in the ELL resource fleet will have operated for nearly 30 years in

1 the latter half of the 2040s, with some reaching well past their 45th year of operation by
 2 the end of the ESA, as shown below in Table 2. These resources serve electrical load
 3 that is currently present in ELL’s system, and, therefore are needed for the resource
 4 adequacy of the ELL system even prior to the addition of the large data center loads
 5 that the Company is experiencing. While the operating status of the resources listed
 6 below in Table 2 in the late 2040s and early 2050s is difficult to predict at present, and
 7 beyond the scope of ELL’s latest Business Plan, such resources could be expected to
 8 be nearing the end of their commercial life at that time. As a result, even in a no-load
 9 growth scenario (again, highly unlikely) the Proposed Generators would allow the
 10 Company to avoid or delay otherwise needed replacement generation. This would be
 11 particularly true in a future scenario that experienced load growth between now and
 12 2048.

13 **Table 2: Combined Cycle Resources**¹⁶

Owned Resources	Technology	Summer ICAP(MW)	Operating Age by 9/1/2048 (Years)
Acadia	CCGT	520	46
Ouachita 3	CCGT	245	46
Perryville 1	CCGT	577	46
Union 3	CCGT	512	45
Union 4	CCGT	513	45
Cottonwood 1	CCGT	340	45
Cottonwood 2	CCGT	333	45
Cottonwood 3	CCGT	340	45
Cottonwood 4	CCGT	287	45
Ninemile 6	CCGT	442	34
JWLS 1	CCGT	908	29
LCPS	CCGT	980	28

¹⁶ The Cottonwood units listed in this table and their acquisition by the Company are currently the subject of a certification proceeding before the Commission. *See In re: Application of Entergy Louisiana, LLC for Approval to Acquire Cottonwood Generation Facility and for Cost Recovery*, LPSC Docket No. U-37801.

1 **III. CONCLUSION**

2 Q29. WHAT KEY CONCLUSIONS CAN REASONABLY BE DRAWN FROM YOUR
3 RESULTS?

4 A. The results of the analysis show that, after factoring in the substantial financial
5 contributions that the Customer is making toward the cost of the Proposed Resources
6 and the Proposed Transmission Projects through the revenues the Company will receive
7 under the Customer's ESA,¹⁷ including contributions towards storm recovery and
8 resilience riders, and towards fixed and variable fuel costs, the addition of the Customer
9 Project's load and the generation and transmission resources proposed in the
10 Company's Application will result in substantial net benefits to ELL's other customers.
11 And net benefits persist even if it is assumed, conservatively, that the Customer does
12 not renew its ESA at the end of the Original Term and that the resources with remaining
13 net book value at that time have no value.

14
15 Q30. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

16 A. Yes, at this time.

¹⁷ As noted above, the economic analysis omits the transmission costs [REDACTED] that the Customer is funding directly through its CIAC Agreement, as these costs and revenues offset each other.

AFFIDAVIT

STATE OF LOUISIANA

PARISH OF ORLEANS

NOW BEFORE ME, the undersigned authority, personally came and appeared, **SAMRAT DATTA**, 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.



Samrat Datta

SWORN TO AND SUBSCRIBED BEFORE ME
THIS 19 DAY OF MARCH, 2026



NOTARY PUBLIC

My commission expires: Duck

Skylar Rosenblom
Notary Public
State of Louisiana
Louisiana Bar Roll # 31309
Commission Issued for Life



Listing of Previous Testimony Filed by Samrat Datta

<u>DATE</u>	<u>TYPE</u>	<u>JURISDICTION</u>	<u>DOCKET NO.</u>
04/21/2015	Direct	LPSC	U-33605
08/11/2017	Direct	PUCT	47462
12/11/2017	Rebuttal	LPSC	U-34447
09/08/2021	Direct	LPSC	U-35927
01/31/2022	Direct	LPSC	U-36135
02/14/2022	Direct	LPSC	U-36133
03/04/2022	Cross-Answering	LPSC	U-36135
3/18/2022	Cross-Answering	LPSC	U-36133
1/20/2023	Direct	LPSC	U-36514
01/26/2023	Direct	LPSC	U-36515
03/05/2024	Direct	LPSC	U-37131
10/30/2024	Direct	LPSC	U-37425
05/30/2025	Rebuttal	LPSC	U-37425

**BEFORE THE
LOUISIANA PUBLIC SERVICE COMMISSION**

***IN RE: APPLICATION OF ENTERGY)
LOUISIANA, LLC FOR CERTIFICATION)
OF GENERATION AND TRANSMISSION)
RESOURCES AND FOR OTHER RELIEF)
PURSUANT TO THE COMMISSION'S)
LIGHTNING INITIATIVE)***

DOCKET NO. U-_____

EXHIBIT SD-2

**HIGHLY SENSITIVE PROTECTED MATERIALS
AND ATTORNEYS' EYES ONLY
FILED UNDER SEAL**

INTENTIONALLY OMITTED

MARCH 2026