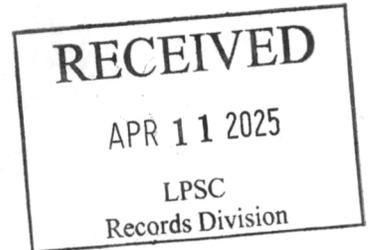


**STATE OF LOUISIANA
BEFORE THE
LOUISIANA PUBLIC SERVICE COMMISSION**

APPLICATION OF ENTERGY)
LOUISIANA, LLC FOR APPROVAL OF)
GENERATION AND TRANSMISSION)
RESOURCES PROPOSED IN) **DOCKET NO. U-37425**
CONNECTION WITH SERVICE TO A)
SIGNIFICANT CUSTOMER PROJECT)
IN NORTH LOUISIANA, INCLUDING)
PROPOSED RIDER, AND REQUEST)
FOR TIMELY TREATMENT)

**Direct Testimony and Exhibits of
Catherine Kunkel
On Behalf of the
Alliance for Affordable Energy and
Union of Concerned Scientists**

Public Redacted Version



April 11, 2025

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1 **I. INTRODUCTION**

2 **Q. Please state your name, business address, and position.**

3 A. My name is Catherine Kunkel, my address is PO Box 75362 Charleston, WV
4 25375, and I am an Energy Consultant with the Institute for Energy Economics
5 and Financial Analysis (“IEEFA”).

6 **Q. On whose behalf are you testifying in this proceeding?**

7 A. I am submitting testimony on behalf of the Alliance for Affordable Energy and
8 Union of Concerned Scientists (collectively, the “NPOs”).

9 **Q. Please summarize your work experience and educational background.**

10 A. I am an Energy Consultant with IEEFA. IEEFA is a non-profit, privately
11 funded organization focused on researching fossil fuel and renewable energy
12 markets and trends. I have submitted expert testimony and comments in utility
13 resource planning cases, rate cases and natural gas pipeline cases on behalf of
14 environmental, consumer and business organizations. My most recent IEEFA
15 report focused on the proposed buildout of natural gas infrastructure to serve
16 data centers in the southeastern United States. I have bachelor’s and master’s
17 degrees in physics from Princeton and Cambridge. My resume is attached as
18 Exhibit CMK-1.

19 **Q. Have you previously testified before the Louisiana Public Service
20 Commission (“LPSC” or “Commission”)?**

21 A. No. I have, however, submitted comments and testimony in several proceedings
22 before other regulatory bodies, including the West Virginia Public Service
23 Commission, Puerto Rico Energy Bureau, and Federal Energy Regulatory
24 Commission. For a description of my prior testimony in regulatory cases, please
25 see Exhibit CMK-1.

1 **Q. What is the purpose of your testimony?**

2 A. In its Application, Entergy Louisiana, LLC (“ELL”) is, among other things,
3 seeking Commission approval of three combined cycle gas plants (the “Planned
4 Generators”) and various transmission facilities in order to serve an estimated
5 [[REDACTED]] MW of load from a data center to be constructed by Laidley LLC
6 (“Laidley”), a subsidiary of Meta Platforms, Inc.¹ The Application requests
7 certification that the public convenience and necessity would be served by
8 construction and use of three Planned Generators (referred to hereinafter as
9 “CPCN” requests). My testimony analyzes the extent to which ELL’s
10 ratepayers are at risk of bearing costs if ELL’s Application is approved. First, I
11 summarize ELL’s proposal. I then describe ELL’s Electric Service Agreement
12 (“ESA”) and the importance of basing a decision in this case on the final
13 negotiated agreement. Next, I evaluate ELL witness Datta’s economic analysis
14 of the Application’s claimed economic benefit to ratepayers and discuss several
15 important risks that are excluded from this analysis but would materially
16 change the result. Finally, I describe additional financial risks that ratepayers
17 would be exposed to by ELL’s proposal.

18 **Q. What information did you review in preparing your testimony?**

19 A. I reviewed ELL’s testimony, exhibits, workpapers, and discovery responses. I
20 also reviewed large load tariffs and energy service agreements of utilities in
21 other jurisdictions, natural gas combined cycle CPCN petitions in other
22 jurisdictions, Midcontinent Independent System Operator, Inc. (“MISO”)
23 documents, and publicly available information regarding artificial intelligence
24 technology and companies, as cited herein.

¹ Throughout its Application and testimony, ELL refers to Laidley as “the Customer,” and the proposed data center as “the Project.”

1 **Q. Please summarize your recommendations.**

2 A. Based on my review and analysis, I conclude that ELL’s Application would put
3 other ratepayers at risk of having to absorb hundreds of millions, if not billions
4 of dollars, of additional costs associated with serving Laidley’s data center.
5 Consequently, I recommend that the Commission deny ELL’s Application as
6 proposed.

7 If the Commission is nevertheless inclined to approve the proposals in ELL’s
8 Application, I recommend that such approval be conditioned on the following:

- 9 • The Commission should review the final terms of the ESA, and approve
10 such terms before issuing CPCNs for the Planned Generators.
- 11 ○ To enable the Commission’s review, Staff and other parties should
12 be given an adequate opportunity to review the final ESA terms, and
13 to provide testimony and briefing on such terms.
- 14 • The CPCNs should not be issued unless and until ELL and Laidley extend
15 the initial term of the ESA to 25 years. This will more closely match the
16 depreciable life of the Planned Generators and reduce the risk of stranded
17 costs to other ratepayers.
- 18 • The Commission should inform ELL that any costs associated with the
19 Planned Generators incurred before the effective date of the ESA will be
20 disallowed for cost recovery from other ratepayers if Laidley’s project is
21 cancelled. Disallowing cost recovery would be reasonable in that the
22 prudence of the Planned Generators depends on being able to recover the
23 costs from the Laidley load.
- 24 • The Commission should require a credit to be applied to the FAC charge for
25 other customers to account for the possibility that Laidley’s load drives up
26 net energy costs for all ratepayers, as described in Section V of my
27 testimony.

- 1 • If, as a result of subsequent studies, analysis, or operating experience,
2 additional transmission facilities are identified as necessary to serve the
3 Customer’s data center beyond those identified in (a) Table 1 on pages 13-
4 14 of the Kline Direct Testimony, and (b) ELL’s public response to
5 discovery request LEUG 7-8 (public redacted version),² no portion of the
6 cost of such facilities will appear in either ELL’s retail or wholesale rates.

7 These conclusions and recommendations are set forth in detail below.

8 **II. THE SIZE OF LAIDLEY’S DATA CENTER RELATIVE TO ELL’S**
9 **EXISTING RATE BASE HIGHLIGHTS THE IMPORTANCE OF**
10 **PROTECTING ELL’S EXISTING RATEPAYERS FROM BEING**
11 **BURDENED WITH POTENTIAL COSTS FOR DATA CENTER-**
12 **RELATED ELECTRICAL INFRASTRUCTURE**

13 **Q. What is the size of the proposed Laidley data center, and how does this**
14 **compare to other ELL large loads?**

15 A. Laidley is proposing to construct a [[REDACTED]] data center. ELL has
16 proposed that the data center take service under its “Large Load High Load
17 Factor Power Service” (“LLHLFPS-L”) rate schedule.³ But this proposed data
18 center is [[REDACTED]] than the facilities currently on that schedule. In fact, the
19 data center’s load would be nearly [[REDACTED]] any current
20 customer on Schedule LLHLFPS-L.⁴

21 **Q. How large is the proposed data center in relation to ELL’s total load?**

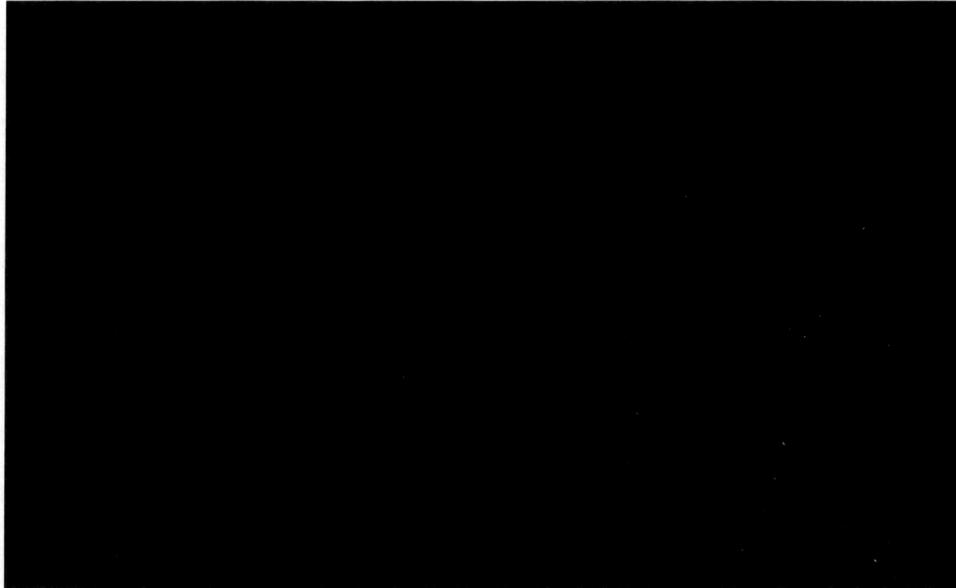
² ELL response to LEUG 7-8 (public redacted version) (attached as Exhibit CMK-2).

³ Application at 19.

⁴ According to ELL’s HSPM response to discovery request Staff 1-28, the largest current customer on the LLHLFPS-L rate schedule had a peak demand [[REDACTED]]. See ELL response to Staff 1-28, Supporting Documentation_HSPM, “LLHLFPS Meter Data” tab.

1 A. The data center represents between [REDACTED] % of ELL’s total forecasted energy
2 load through 2050, as shown in Figure 1 below.⁵

3 [[



4]

5 **Figure 1: ELL’s projected energy load with and**
6 **without the Laidley data center (HSPM)**

7 **Q. What infrastructure investments is ELL proposing to serve Laidley’s data**
8 **center load, and what is the estimated cost of these investments?**

9 A. ELL is proposing to construct three new combined cycle (“CC”) gas turbines
10 (the “Planned Generators”) with a total nominal capacity of 2,262 MW⁶ and
11 originally projected to cost \$3.2 billion⁷ (stated at [REDACTED]
12 [REDACTED]),⁸ as well as over [REDACTED] in

⁵ Figure derived from the HSPM response to Walmart 1-6 (attachment entitled “RL-U37425-00WMI001-L006_HSPM”), the estimated Laidley data center load presented in HSPM Exhibit RDJ-2, and the revised new data center load assuming a [REDACTED] load factor.

Note: many of the HSPM documents discussed in my testimony have also been designated Attorney’s Eyes Only.

⁶ Application at 12.

⁷ Direct Testimony of Phillip R. May at 23:17 (“May Direct Testimony”).

⁸ This includes [REDACTED] in capital costs of each of the Planned Generators (see Exhibit E-1 to the CIAC Agreement) plus [REDACTED] (Exhibit D to the CIAC Agreement). See HSPM Exhibit LKB-2 at 182, 184.

1 transmission improvements to be paid for directly by Laidley (known as the
2 “Customer-Specific Transmission Projects”).⁹ Two of the three Planned
3 Generators are proposed to be located adjacent to the data center site, with
4 projected in-service dates of December 2028,¹⁰ whereas the third Planned
5 Generator is to be located at the Waterford site,¹¹ with a projected in-service
6 date of December 2029.¹²

7 ELL is also planning to build a 500 kV Mt. Olive to Sarepta line and upgrades
8 to the Sterlington substation (hereinafter collectively the “Mt. Olive to Sarepta
9 facilities”) at a cost of nearly \$550 million.¹³ These projects collectively
10 represent over [REDACTED] in capital investment.

11 It is worth noting that ELL arrived at this preferred infrastructure plan with a
12 very limited analysis of alternatives.¹⁴

13 **Q. How substantial are these investments in comparison to ELL’s current**
14 **revenue requirements?**

15 A. ELL’s current revenue requirement is \$3.3 billion.¹⁵ The estimated revenue
16 requirement for the infrastructure described above in 2030 (the first full year in
17 which all three of the Planned Generators are in service) will be approximately
18 [REDACTED],¹⁶ about [REDACTED]% of ELL’s current revenue requirements.

⁹ Direct Testimony of Daniel Kline at 15:9 (“Kline Direct Testimony”).

¹⁰ Direct Testimony of Matthew Bulpitt at 17:10-19:1 (“Bulpitt Direct Testimony”).

¹¹ Supplemental Testimony of Laura K. Beauchamp at 2:24-3:2 (“Beauchamp Supplemental Testimony”).

¹² Bulpitt Direct Testimony at 40, Table 5.

¹³ Kline Direct Testimony at 15:9-15.

¹⁴ Other than a no-build alternative, the alternatives included: (a) a renewables-only option, (b) two natural gas-only alternatives, and (c) a transmission-only alternative. Direct Testimony of Laura K. Beauchamp at 43:11-18 (“Beauchamp Direct Testimony”).

¹⁵ ELL response to NPO 14-5 (attached as Exhibit CMK-3).

¹⁶ See HSPM Exhibit RDJ-2, [REDACTED]

1 Given the size of Laidley’s proposed data center load, ELL’s proposal presents
2 novel challenges to ratemaking and cost allocation. The addition of large loads
3 that, as here, are [[REDACTED]] than typical industrial loads, are
4 forcing utilities across the country to grapple with novel issues, both in terms of
5 grid reliability (see the testimony of NPO witness Nicholas Miller) and
6 ratemaking.

7 **Q. What arrangements is ELL proposing for the allocation of these costs**
8 **between Laidley and ELL’s other ratepayers?**

9 A. ELL has presented an Electric Service Agreement (“ESA”) and an Agreement
10 for Contribution in Aid of Construction and Capital Costs (“CIAC agreement”),
11 which describe the financial agreements for Laidley to contribute to the cost of
12 above-mentioned facilities. These agreements are attached to the direct
13 testimony of Laura K. Beauchamp.¹⁷ The CIAC agreement provides that
14 Laidley will fully fund the capital cost of the Customer-Specific Transmission
15 Projects and [[REDACTED]]
16 [[REDACTED]].

17 The ESA is a 15-year agreement with up to three 5-year extensions (i.e. up to
18 30 years in total) that sets the terms by which the data center will receive
19 service under ELL’s Large Load High Load Factor Power Service (LLHLFPS-
20 L) rate schedule. ELL states that the minimum monthly charges established in
21 the ESA were designed to ensure that the payments received from Laidley are
22 sufficient to recover the annual revenue requirements associated with the new
23 electrical infrastructure (excluding the Mt. Olive to Sarepta facilities) during the
24 term of the contract.¹⁸ The annual revenue requirements for this infrastructure
25 include annualized capital costs of the Planned Generators, non-fuel O&M,
26 purchased capacity, and maintenance costs associated with the Customer-

¹⁷ See HSPM Exhibit LKB-2 (ESA and CIAC agreement). The CIAC agreement, which can be found in LKB-2, is also reproduced separately in HSPM Exhibit LKB-3.

¹⁸ Direct Testimony of Ryan D. Jones at 13:9-20 and 18:8-12 (“Jones Direct Testimony”).

1 Specific Transmission Projects. The ESA also establishes [[REDACTED]]
2
3 [[REDACTED]]
4 ELL proposes that the fuel costs associated with the Planned Generators, as
5 well as market energy purchases required to serve the Laidley load, be rolled
6 into the Fuel Adjustment Clause (“FAC”), which is ELL’s annual mechanism
7 for recovering fuel and purchased energy costs across all ratepayers (including
8 Laidley).²⁰
9 ELL proposes that its jurisdictional share ([[REDACTED]]) of the Mt. Olive to Sarepta
10 facilities be borne by all ELL ratepayers.²¹

11 **Q. Is the ESA that you just described the final version of the ESA negotiated**
12 **between ELL and Laidley?**

13 A. No. The ESA presented in ELL’s Application is not the final version of the
14 ESA which is currently under re-negotiation because of Laidley’s decision to
15 increase its data center load by [[REDACTED]].²² (See
16 next section).

17 **Q. Has ELL presented a calculation of the revenues it anticipates earning**
18 **through the ESA?**

19 A. Yes. Exhibit 2 to the testimony of Ryan Jones (HSPM Exhibit RDJ-2) provides
20 an illustration of projected revenues to ELL under the ESA, which are
21 compared to the annual revenue requirements associated with the Planned
22 Generators and the Customer-Specific Transmission Projects. The Exhibit’s
23 calculation of this annual revenue requirement includes [[REDACTED]]

¹⁹ HSPM Exhibit LKB-2 at 35-36.

²⁰ Direct Testimony of Joshua B. Thomas at 3:12-16 (“Thomas Direct Testimony”).

²¹ Direct Testimony of Samrat Datta at 8:4-8 (“Datta Direct Testimony”).

²² Beauchamp Supplemental Testimony at 4:5-8.

█ [REDACTED]
█ [REDACTED]
█ [REDACTED]
4 [REDACTED]]. The Jones exhibit finds that the annual
5 projected revenues to ELL during the initial term of the ESA are sufficient to
6 cover the annual revenue requirements during that 15-year period.

7 **Q. What are the limitations of the Jones analysis in terms of understanding**
8 **the impact of ELL’s proposals on ratepayers?**

9 A. The Jones analysis does not provide insight into whether revenues are sufficient
10 to cover costs beyond the initial 15-year term of the ESA. It also does not
11 include the costs to ratepayers associated with investments that ELL does not
12 propose to attribute directly to Laidley (namely the Mt. Olive to Sarepta
13 facilities). These limitations are important to keep in mind given that ELL
14 repeatedly cites the results of witness Jones’s analysis to support its proposals.²³

15 **Q. ELL claims that existing ratepayers would not be unduly burdened by**
16 **costs if its proposals are approved.²⁴ Do you agree?**

17 A. No. In fact, ELL’s proposals pose significant cost risks to ELL’s existing
18 customers. There are at least three categories of risks that ELL’s filing fails to
19 address. *First*, ELL’s Application and testimony (including witness Jones’s
20 revenue requirements analysis) are based on an agreement that has not been
21 finalized. As explained below in Section III, the ESA—which is cited more

²³ See, e.g., May Direct Testimony at 26:19-27:3 (“The minimum bill charges and the amounts charged under Rate Schedule LLHLFPS-L to the Customer are sufficient to offset the incremental revenue requirement of the investments and costs necessary to serve the Customer during the 15-year term of the ESA.”); Thomas Direct Testimony at 14 (“Finally, the expected revenue from the Customer exceeds the Planned Generators’ revenue requirements during the ESA’s original 15-year term and will offset not only incremental costs but also embedded costs now borne by existing customers. Thus, the Planned Generators’ revenue requirements will not cause existing customers’ bills to increase.”).

²⁴ Thomas Direct Testimony at 17:10-13; Jones Direct Testimony at 23:12-15; Application at 4; May Direct Testimony at 26:16-19.

1 than 200 times in ELL’s filing—is still being negotiated. Until those terms have
2 been finalized, the Commission cannot meaningfully review ELL’s proposals.
3 *Second*, as noted above, the Jones analysis does not provide insight into the cost
4 to ratepayers after the initial 15-year term of the ESA, nor does it include the
5 costs to ratepayers associated with investments that ELL does not propose to
6 attribute directly to Laidley (namely the Mt. Olive to Sarepta facilities).
7 Although ELL attempted to address these issues in the testimony of Samrat
8 Datta, witness Datta’s analysis understates the potential costs of ELL’s
9 proposal. I discuss my evaluation of witness Datta’s analysis in Section IV of
10 this testimony.

11 Finally, as explained in Section V of my testimony, ELL has not addressed the
12 risks that ratepayers may foot the bill for higher operating costs and/or for
13 additional transmission mitigations to support the Laidley load.

14 **III. BECAUSE THE APPLICATION IS BASED ON AN ESA THAT IS NOT**
15 **FINAL, APPROVING ELL’S PROPOSALS WOULD EXPOSE**
16 **RATEPAYERS TO UNREASONABLE RISKS**

17 **Q. Has ELL presented a final version of the ESA with Laidley in this**
18 **proceeding?**

19 A. No. As mentioned previously, the ESA and CIAC agreements filed with the
20 Application formalize ELL’s agreements regarding cost allocation to Laidley.
21 ELL’s Application was also based on the assumption that Laidley would be
22 adding [[REDACTED]] MW of data center load to the system.

23 But the ESA included with the Application is not the final version. In
24 supplemental testimony filed on February 12, 2025, ELL revealed that the data
25 center project has expanded [[REDACTED]].²⁵ ELL is now proposing to

²⁵ Beauchamp Supplemental Testimony at 4:5-8.

1 construct additional transmission facilities, with the “expectation” that they be
2 fully paid for by Laidley.²⁶

3 As a result of the increase in Laidley’s load, ELL witness Beauchamp stated
4 that ELL and Laidley are still negotiating “the terms required to serve [the
5 Customer’s] additional load,”²⁷ and that this may result in amendments to the
6 ESA.

7 This continues to be the case. In discovery, the NPOs asked if ELL intended to
8 file a revised version of the ESA and CIAC agreement. In a discovery response
9 that was served on March 21, 2025, ELL stated: “The Company and Customer
10 have not reached agreement on additional commercial terms at this time. It is
11 uncertain when, or if, such agreement will be reached.”²⁸ This was further
12 confirmed in an additional discovery response served on March 27, 2025.²⁹

13 **Q. Does ELL believe that the ESA requires Commission approval?**

14 A. ELL’s position is that the ESA does not require Commission approval because
15 it is not a site-specific contract, rather it implements an existing approved tariff,
16 namely the Large Load High Load Factor Power Service (LLHLFPS-L) tariff.³⁰

17 **Q. Do you agree that the ESA is simply an implementation of an already**
18 **approved tariff?**

19 A. No. Without taking a legal position on whether or not the ESA requires
20 Commission approval, I note that the ESA represents a very substantial addition
21 to the LLHLFPS-L tariff and is, in fact, central to ELL’s arguments about the
22 impacts of the proposal on other ratepayers. Rider 1 of the ESA adds significant
23 new provisions around [REDACTED]

²⁶ *Id.* at 4:23-24.

²⁷ *Id.* at 5:4-7

²⁸ ELL response to NPO 11-10 (attached as Exhibit CMK-4).

²⁹ ELL response to NPO 11-8 (public redacted version).

³⁰ Beauchamp Supplemental Testimony at 7:1-9.

1 [REDACTED]] and more³¹ that are not found in the
2 LLHLFPS-L schedule. Rider 1 also defines certain parameters that are key
3 drivers of how much revenue will be collected from Laidley. Specifically, [[REDACTED]
4 [REDACTED]
5 [REDACTED]] and, therefore,
6 whether this revenue is sufficient to cover the annual revenue requirements of
7 the Planned Generators and Customer-Specific Transmission Projects during
8 the initial term of the ESA.

9 In short, key provisions of the ESA which are not found in the LLHLFPS-L
10 tariff—including [[REDACTED]
11 [REDACTED]]—are
12 key to ELL’s argument that its proposal is sufficiently protective of other
13 ratepayers.

14 **Q. Would approving ELL’s proposal without a final ESA in place expose**
15 **ratepayers to additional risk?**

16 **A.** Yes. The renegotiation of the ESA could result in material changes to that
17 agreement, with as-yet-undisclosed consequences to other ratepayers. As just
18 described, the terms of the ESA are critical to understanding the distribution of
19 costs and financial risks between Laidley and other ratepayers. The importance
20 of the ESA to ELL’s case is reflected in the fact that the ESA is cited more than
21 200 times in ELL’s initial filing.

22 Approving ELL’s Application without the benefit of the final ESA would
23 expose ratepayers to additional risk. As such, I do not think it is reasonable for
24 ELL to expect the Commission to evaluate its proposal in the absence of a final
25 ESA.

³¹ See generally HSPM Exhibit LKB-2 at 27-52 (Rider 1).

1 **Q. Are there other ways in which the increase in Laidley’s load could expose**
2 **other ratepayers to additional costs?**

3 A. Yes. The increase in load exacerbates some of the risks discussed in the
4 testimony of Nicholas Miller, which may lead to ratepayers paying higher costs
5 related to transmission mitigations and ancillary services. These risks are
6 discussed in Section V below.

7 **IV. ELL’S ALLEGED ECONOMIC BENEFIT TO OTHER RATEPAYERS**
8 **FROM THE PROPOSED PROJECT BECOMES A NET COST IF ELL’S**
9 **ASSUMPTIONS ABOUT FUTURE RESOURCE NEEDS AND THE**
10 **TIMING OF ESA NON-RENEWAL DO NOT MATERIALIZE AS**
11 **PLANNED**

12 **Q. ELL asserts that its proposal will result in overall cost savings to its other**
13 **customers.³² Do you agree?**

14 A. No. ELL’s claim is based on the economic analysis presented by witness Datta,
15 which finds a net benefit to ratepayers under a scenario in which Laidley
16 terminates the ESA after the first fifteen-year term. As I elaborate on below,
17 witness Datta’s analysis hinges on ELL’s assumption that it will need to
18 construct additional gas generation in the 2041-2044 timeframe (the “Otherwise
19 Needed Generators”). Under this assumption, if Laidley does not renew its
20 contract after the initial term, ELL claims that the Planned Generators could
21 substitute for the Otherwise Needed Generators, resulting in significant avoided
22 cost savings.

23 In this section I discuss in detail several risks that are unaddressed in the Datta
24 analysis, but which, should they materialize, would substantially change the
25 analysis. Under different, but plausible, scenarios as described herein, the

³² See Application at 5 (“This large financial commitment from the Customer is expected to result in substantial cost savings for ELL’s other customers for years to come.”).

1 alleged economic benefit to ratepayers becomes a net cost. The risks that ELL
2 failed to address in its economic analysis include:

- 3 • The risk that the Planned Generators cannot be used to substitute for the
4 Otherwise Needed Generators in the 2041 timeframe, either because (a)
5 some or all of the Otherwise Needed Generators are unnecessary, or (b)
6 ELL has already incurred substantial costs to construct them before
7 Laidley decides to terminate the ESA.
8
9 • The risk that Laidley terminates the ESA after the Otherwise Needed
10 Generators have already been built and entered into service.
11
12 • The risk that future MISO capacity market prices do not materialize as
13 ELL projects.
14
15 • The risk of cost overruns on the Planned Generators (a particularly
16 plausible risk with respect to the CC plant to be constructed at the
17 Waterford site), which would expose ratepayers to additional costs in
18 the event that Laidley does not renew the ESA for the full 30 years.
19
20 • The risk that Laidley pulls out of its data center project before the ESA
21 takes effect, leaving ratepayers with stranded costs on Planned
22 Generators that have already been partially constructed.

23 For the first of these three risks, the fact that the initial term of the ESA (15
24 years) is significantly shorter than the depreciable life of the Planned
25 Generators (30 years³³) means that ratepayers are exposed to significant risk of
26 having to cover stranded costs associated with the Planned Generators,
27 depending on the timing of when Laidley terminates the ESA and the timing of
28 ELL's possible other generation resource needs.

29 **Q. What are the findings of ELL's economic analysis regarding the impact of**
30 **its proposal on other (non-Laidley) ratepayers?**

31 A. ELL witness Datta presents an economic analysis of the net cost/benefit to
32 other ratepayers from the Laidley data center and the generation and

³³ Jones Direct Testimony at 14:12-13.

1 transmission resources needed to serve it. The analysis specifically considers
2 the case in which Laidley terminates the contract after the first fifteen-year
3 term. It finds a [REDACTED]] net benefit (net present value) to other
4 ratepayers.³⁴

5 **Q. What drives ELL’s result that termination of the ESA after the 15-year**
6 **initial term still results in a net benefit to other ratepayers?**

7 A. ELL’s result hinges on the benefit that ratepayers would purportedly receive by
8 avoiding the need to construct two combined cycle and two combustion turbine
9 units in 2041-44. ELL asserts that it will need to construct these gas plants to
10 serve future load, but the plants would not be needed if Laidley terminates the
11 ESA in 2041. Witness Datta refers to these as the “Otherwise Needed
12 Generators.” The avoided cost benefit of the Otherwise Needed Generators is
13 [REDACTED]] (net present value), according to witness Datta’s analysis. ELL
14 claims that this benefit more than offsets other costs that ratepayers will incur,
15 including paying off the remainder of the total 30-year revenue requirement of
16 the Planned Generators (the net present value of the remaining revenue
17 requirement that ratepayers will pay for after 2041 totals [REDACTED]]).³⁵

18 **Q. Is witness Datta’s calculation the only economic analysis that ELL**
19 **conducted of the alleged benefits of Laidley’s project?**

20 A. Yes. Other statements by ELL regarding the economic development benefit of
21 data center were taken directly from the project developer, Meta, with no
22 independent evaluation by ELL.³⁶

23

24

³⁴ Datta Direct Testimony at 16:17-22.

³⁵ HSPM Exhibit SD-2.

³⁶ See, e.g., ELL response to Sierra 1-5 (attached as Exhibit CMK-5).

1 **A. *The Otherwise Needed Generators are poorly justified. Under***
2 ***other load forecast assumptions, they would not be fully needed***
3 ***and ratepayers would suffer a net loss as a result of the***
4 ***proposals in ELL’s Application***

5 **Q. The Otherwise Needed Generators play a pivotal role in ELL’s economic**
6 **analysis. What justification has ELL provided to support the need for**
7 **those generators in the 2041-2044 timeframe?**

8 A. ELL has provided surprisingly little analysis to justify the Otherwise Needed
9 Generators. The Otherwise Needed Generators are not included in ELL’s most
10 recent 2023 Integrated Resource Plan.³⁷ In response to a discovery request to
11 “provide the analysis that led the Company to conclude that it would need to
12 construct the ‘Otherwise Needed Generators’ if the ESA is not terminated,”
13 ELL provided only a forecast of load and projected capacity.³⁸ In follow-up
14 discovery, ELL provided a narrative description of the load forecast.³⁹
15 However, it did not provide any capacity expansion modeling or analysis of
16 other resource planning options—including demand-side resources, distributed
17 generation, retirement deferrals or other non-gas supply-side resources—that
18 could meet or partially meet capacity needs in the 2041-2044 timeframe. And
19 ELL has confirmed that no resource planning modeling was performed in the
20 development of its proposal here,⁴⁰ indicating that the addition of the Otherwise
21 Needed Generators is not the result of capacity expansion modeling.
22 It is also worth emphasizing that, even if ELL had done resource planning
23 modeling to justify the Otherwise Needed Generators, such modeling would be

³⁷ The Otherwise Needed Generators consist of a [REDACTED] MW CC in 2041, a [REDACTED] MW CT in 2042, a [REDACTED] MW CT in 2043 and a [REDACTED] MW CC in 2044. None of the three resource portfolios presented in the 2023 IRP show these resources being added in 2041 and 2042 (the last years of the IRP modeling). See generally Entergy Louisiana 2023 Integrated Resource Plan (May 22, 2023) (“ELL 2023 IRP”), <https://cdn.entergy-louisiana.com/userfiles/content/irp/2023/Combined-Final-Report-05-22-23.pdf>.

³⁸ ELL response to NPO 7-1(a) (referencing load and capability forecast produced in response to LEUG 1-8(a)) (attached as Exhibit CMK-6).

³⁹ ELL response to NPO 14-3, HSPM attachment entitled “NPO 14-3 BP25_Sales&Load_Forecast_ELL_HSPM.”

⁴⁰ ELL response to NPO 11-5 (attached as Exhibit CMK-7).

1 subject to a high degree of uncertainty more than 15 years into the future. As
2 ELL itself acknowledges: “Given the uncertainty and fluidity inherent in long-
3 term resource planning, ELL’s IRP provides a framework for the Company to
4 plan for resources over the next several years but does not and cannot
5 reasonably serve as a prescriptive plan to address ELL’s long-term generation
6 needs and options for meeting those needs. Circumstances will necessarily
7 change, and to be reasonable and prudent, resource-procurement decisions must
8 be made based on the best information reasonably available at the time those
9 decisions are made.”⁴¹ Yet, despite this caveat, in this case ELL is making a
10 \$[[REDACTED]] bet (with ratepayers’ money) that the Otherwise Needed
11 Generators will be needed in 2041-2044.

12 **Q. What assumptions around future load growth does ELL make to justify**
13 **the Otherwise Needed Generators?**

14 A. ELL is assuming an average annualized peak demand growth rate from 2025 to
15 2044 of [[REDACTED]]% per year.⁴²

16 **Q. Do you believe it would have been prudent to consider a range of load**
17 **forecasts?**

18 A. Yes. There is significant uncertainty around load forecasts in general, due to
19 uncertainty around new industrial loads (including data centers), vehicle
20 electrification, and overall macroeconomic trends. Given this growing
21 uncertainty, it is important to consider a range of plausible load forecasts.

22 **Q. What might a lower load forecast sensitivity have shown?**

23 A. MISO’s most recent Independent Energy and Peak Demand Forecast
24 (November 2023) estimated a growth rate of 0.94% per year from 2024-2043

⁴¹ Beauchamp Direct Testimony at 24:18-25:3.

⁴² Derived from ELL’s response to NPO 8-9 and the attachment entitled “RL-U37425-00NPO008-L009_HSPM.”

1 for Local Resource Zone 9, the zone which encompasses ELL’s service
2 territory.⁴³ Starting with ELL’s projected 2025 peak demand and applying this
3 lower growth rate would result in a projected 2044 peak demand of [[REDACTED]]
4 MW, or [[REDACTED]] MW lower than ELL’s projected 2044 peak demand.

5 **Q. What implication would this lower load forecast have on the “need” for the**
6 **Otherwise Needed Generators?**

7 A. The Otherwise Needed Generators consist of a [[REDACTED]] MW CC in 2041, a
8 [[REDACTED]] MW CT in 2042, a [[REDACTED]] MW CT in 2043 and a [[REDACTED]] MW CC in
9 2044.⁴⁴ If, for example, the first two of those resources turn out not to be
10 needed because the load forecast materializes closer to the MISO forecast than
11 the ELL forecast, then approximately half of the “avoided cost” benefit of the
12 Otherwise Needed Generators would be eliminated.

13 **Q. How would this scenario impact the conclusions of ELL’s economic**
14 **analysis?**

15 A. In the scenario described above, in which half of the Otherwise Needed
16 Generators are not actually needed, ELL would have significant excess capacity
17 if the ESA terminates in 2041 and the Planned Generators are used to serve
18 other non-Laidley load. Carrying that extra generation capacity, with its
19 significant fixed and variable costs and only 48% of the initial capital
20 investment paid for,⁴⁵ could pose a significant financial burden for ratepayers.
21 In theory, ELL could recoup some of the plants’ costs by selling the excess
22 capacity into the MISO capacity market. Witness Datta’s analysis includes the
23 benefit that ratepayers receive after 2041 from selling into the MISO capacity

⁴³ Liwei Lu et al., *2023 MISO Independent Energy and Peak Demand Forecast*, at 35 (Nov. 2023),
<https://www.purdue.edu/discoverypark/sufg/docs/publications/MISO/MISO%20forecast%20report%202023.pdf>

⁴⁴ HSPM Exhibit SD-2.

⁴⁵ Datta Direct Testimony at 10:20-11:1.

1 market the capacity of either the Planned Generators (if the ESA terminates in
2 2041) or the Otherwise Needed Generators (if it does not). But whether or not
3 the excess capacity revenues are sufficient to produce a net benefit or a net loss
4 to ratepayers would depend on MISO capacity market prices 15-30 years into
5 the future. In effect, the large excess capacity position resulting from this
6 scenario would put ELL's ratepayers into the shoes of a merchant generator,
7 forced to speculate in the capacity market. For some set of future market
8 conditions, the overall net impact on ratepayers may be minimal or may even
9 produce a benefit; under other sets of future market conditions, ratepayers may
10 be exposed to a significant loss.⁴⁶

11 In short, ELL's conclusion that termination of the ESA in 2041 would result in
12 a net benefit to ratepayers is highly dependent on assumptions about future load
13 and future MISO capacity prices, both of which have a high degree of
14 uncertainty more than 15 years into the future. If ELL's forecasts turn out to not
15 be accurate, ratepayers are at risk of bearing excess costs.

16 ***B. ELL witness Datta's analysis incorrectly assumes that ELL***
17 ***would be able to fully avoid the cost of the Otherwise Needed***
18 ***Generators under the notice provisions of the ESA.***

19 **Q. Let's turn to another issue. Assuming for the moment that all four of the**
20 **Otherwise Needed Generators were needed in the 2041-2044 timeframe,**
21 **would ELL be able to fully avoid the cost of these generators if Laidley**
22 **does not renew the ESA in 2041?**

23 **A.** Not necessarily. Witness Datta's analysis assumes that ELL will have perfect
24 foresight into Laidley's decision regarding the renewal of the ESA in 2041. But
25 in reality there is a substantial mismatch between the timeline required to

⁴⁶ For example, re-doing witness Datta's analysis assuming that future capacity market prices clear at the net Cost of New Entry, CONE (using the 2025/2026 Local Resource Zone 9 Net CONE value of \$73/kW-year) results in a small net loss to ratepayers of \$[[REDACTED]] (net present value). If capacity market prices were, for example, to clear on average at half of Net CONE, ratepayers would experience a much larger net loss of \$[[REDACTED]].

1 construct a gas generator and the timeline by which Laidley must give notice if
2 it does not renew the ESA (according to the provisions of the ESA). Because
3 the construction timeline is much longer than the ESA’s notice timeline, ELL
4 could incur significant costs on the Otherwise Needed Generators before
5 Laidley’s renewal decision. Under the specific scenario discussed in the Datta
6 testimony—termination of the ESA after the initial 15-year term—ratepayers
7 could bear stranded costs for the partially-built Otherwise Needed Generators.

8 **Q. Please elaborate.**

9 A. ELL estimates a new combined cycle resource to require a 40-month (3.5 year)
10 construction time,⁴⁷ but Laidley is only required to give 12 months’ notice to
11 renew the contract.⁴⁸ This mismatch in timelines could lead to ratepayers being
12 stuck with stranded costs. The first of the Otherwise Needed Generators is a
13 combined cycle resource with a projected in-service date of August 31, 2041.⁴⁹
14 Under the ESA, the date by which Laidley is required to give notice of not
15 renewing the contract is November 30, 2040,⁵⁰ only nine months before the in-
16 service date of the otherwise needed generator.

17 This means that ELL will likely incur more than [REDACTED]% of the construction
18 costs by the time that Laidley would be required to give notice to renew the
19 contract or not.⁵¹ Specifically for the [REDACTED] MW CC that ELL plans to

⁴⁷ ELL response to Walmart 1-13 (attached as Exhibit CMK-8). Some costs will also be incurred prior to the start of the construction period. ELL witness Bulpitt cites a typical five-year total timeframe to construct a new CC and up to six years in today’s constrained market conditions. *See* Bulpitt Direct Testimony at 16:11-17:8. In a subsequent discovery response, ELL cited a CCCT lead time of 6-6.5 years. ELL response to Sierra 6-7 (Exhibit CMK-9)

⁴⁸ Beauchamp Direct Testimony at 12. The ESA instructs the parties to use “best efforts” to provide 24-months notice, *id.*, but the only mandatory timing requirement is for 12 months notice.

⁴⁹ ELL response to Walmart 1-12 (attached as Exhibit CMK-10).

⁵⁰ Beauchamp Direct Testimony at 12 (initial term of ESA runs through 11/30/41, and the ESA “automatically renews for five-year renewal terms, unless either party to the ESA provides notice at least twelve months in advance that it does not intend to renew”).

⁵¹ ELL would have issued a Final Notice to Proceed to its EPC contractor well before Laidley is required to give notice to renew the ESA. If we assume that an EPC contract for the 2041 CC plant will be structured and priced similarly to the EPC contract in the current proceeding, the EPC cost will account

1 construct in 2041 (at a cost of \$[[REDACTED]]⁵²), more than \$[[REDACTED]] of
2 costs would be incurred before Laidley is legally required to decide whether or
3 not to renew the ESA.

4 Similarly, the second of the Otherwise Needed Generators is a combustion
5 turbine with projected in-service date of August 31, 2042.⁵³ ELL estimates a
6 36-month construction timeline for combustion turbines, meaning that ELL
7 would have already issued a Final Notice to Proceed and be about 15 months
8 into construction of this CT plant by the notice date of November 30, 2040.

9 **Q. Who would bear these stranded costs in this scenario?**

10 A. In a scenario in which ELL has already made substantial progress on one or
11 more of the Otherwise Needed Generators and Laidley then decides not to
12 renew the ESA, other ratepayers would bear the stranded costs of the Otherwise
13 Needed Generators. As just described, this could easily amount to [[REDACTED]]
14 [[REDACTED]] in stranded costs.

15 ***C. ELL failed to analyze a scenario where Laidley withdraws from***
16 ***the ESA after the Otherwise Needed Generators are already in***
17 ***service.***

18 **Q. Why did ELL’s economic analysis only evaluate the scenario in which**
19 **Laidley decides not to renew the ESA after the first 15-year term?**

20 A. According to ELL witness Datta, “if the Customer elects to continue taking
21 service for its Project from ELL beyond 2041, that generally would be expected
22 to reduce the costs and increase the benefits to ELL’s other customers, and in

for approximately [REDACTED] of the total generation project cost (Table 3 of Bulpitt testimony) and more than [REDACTED] of the EPC costs will be incurred before the final nine months of the project timeline (HSPM Exhibit MB-2). [REDACTED] This represents an underestimate of the costs that will be incurred prior to the renewal notice date because some of the non-EPC costs will also be incurred prior to this date.

⁵² ELL response to Sierra Club 2-13, HSPM attachment entitled “Sierra 2-13 2041 1x1 CCCT & 2042 CT Rev Req Model_Hydrogen_20241009_HSPM.”

⁵³ ELL response to Walmart 1-13 (attached as Exhibit CMK-8).

1 that respect, the results of my economic analysis may reasonably be viewed as
2 conservative.”⁵⁴

3 **Q. Do you agree?**

4 A. No.

5 Given how much the result of ELL’s economic analysis depends on the benefit
6 to ratepayers associated with the Otherwise Needed Generators that are
7 purportedly needed just at the time when the ESA expires, it does not
8 necessarily follow that benefits to ratepayers would increase if the ESA
9 terminated at a later date. Witness Datta’s conclusions rest on predictions of
10 customer need and market capacity prices more than 15 years in the future as
11 well as a very specific set of circumstances related to when Laidley would
12 renew the ESA.

13 **Q. What is the result of extending ELL’s economic analysis to 2046?**

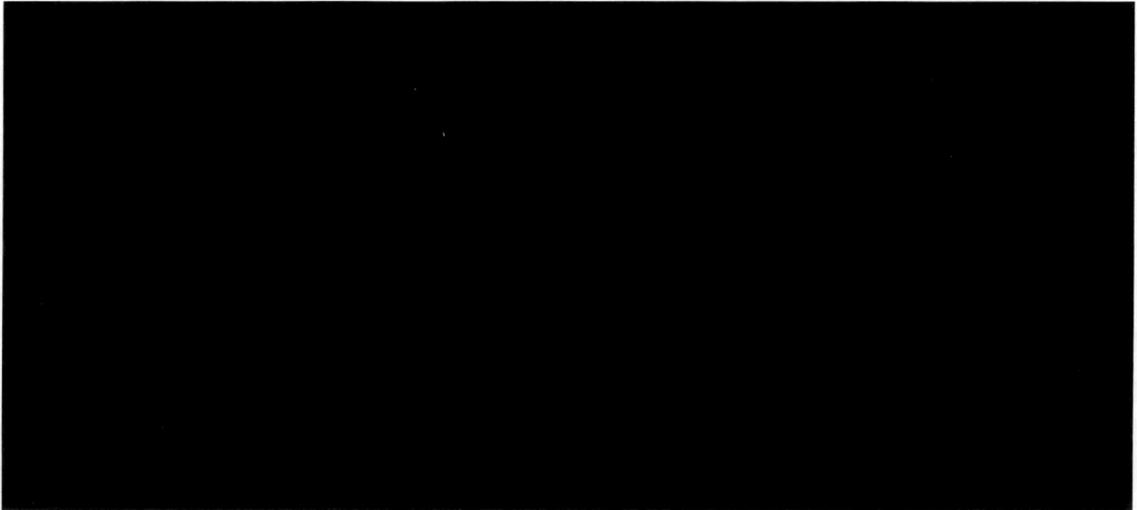
14 A. I extended Datta’s methodology to assume termination of the ESA in 2046 (i.e.
15 assuming that Laidley elects to renew the ESA for the first 5-year renewal
16 period). I also updated the future MISO capacity market prices to Net CONE
17 (adjusted for inflation).⁵⁵ Under these assumptions, the net **cost** to other
18 ratepayers is \$[[]], as shown in the following diagram.⁵⁶

⁵⁴ Datta Direct Testimony at 11.

⁵⁵ Net CONE (the net Cost of New Entry) is the estimated clearing price of the MISO Planning Resource Auction if the auction clears with the amount of capacity needed to meet reliability targets. As described previously, there is high degree of uncertainty with respect to future capacity market prices 20 or more years into the future.

⁵⁶ The only methodological change in my analysis was to adjust transmission O&M numbers for inflation at 2%/year.

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4 **Figure 2: Waterfall analysis showing the \$[[REDACTED]] total net cost to**
5 **ratepayers if the ESA is terminated in 2046 (HSPM)**

6 **Q. Your analysis assumes no avoided cost benefit to ratepayers. Is that**
7 **necessarily the case?**

8 A. By 2046, under ELL’s assumptions, the Otherwise Needed Generators would
9 already have been constructed. There would only be an avoided cost benefit to
10 ratepayers in 2046 if the Planned Generators can partially substitute for other
11 new generation that is otherwise likely to come online in the 2046 timeframe.
12 As ELL itself has stated, resource planning exercises are highly uncertain so far
13 in the future. While ELL does project some level of capacity to retire in the late
14 2040s, much of that capacity is assumed [[REDACTED]]
15 [[REDACTED]]
16 [[REDACTED]].⁵⁷ In short, the high level of uncertainty around future resource
17 availability as the analysis extends into the 2040s makes it highly uncertain
18 whether the Planned Generators could provide any avoided cost benefit. What

⁵⁷ ELL 2023 IRP at 27 (stating that “ELL’s CTs and CCGTs are generally assumed to have a remaining useful life of longer than 30 years”).

1 is certain is that their remaining net book value will have to be paid off by
2 ELL’s other customers once the ESA terminates.

3 ***D. Capital cost overruns for the Planned Generators will result in***
4 ***higher costs to ratepayers if the ESA is not fully renewed***

5 **Q. How much of the total 30-year revenue requirement of the Planned**
6 **Generators remains to be paid off if the ESA is not renewed after the**
7 **initial 15-year term? And who will pay for it?**

8 A. As stated by ELL witness Datta, “[as of 2041], approximately 48% of the total
9 30-year revenue requirement for these CCCTs will remain to be paid by ELL’s
10 other customers.”⁵⁸

11 Therefore, these other customers also bear part of the risk of capital cost
12 overruns of the Planned Generators, if the ESA is not fully renewed for 30
13 years.

14 **Q. Do you believe that the risk of capital cost overruns is likely to materialize?**

15 A. I believe that there is a real risk of capital cost overruns with respect to the third
16 of the Planned Generators, which is the combined cycle unit to be constructed
17 at the Waterford site. Unlike the first two Planned Generators, which are
18 scheduled to go into service in December 2028, the third Planned Generator is
19 not as far along in development. ELL produced a breakdown of the capital costs
20 of the first two Planned Generators in the testimony of Matthew Bulpitt, as well
21 as a much more detailed list of milestone payments in the [[REDACTED]]
22 produced in response to discovery.⁵⁹ With regard to the third Planned

⁵⁸ Datta Direct Testimony at 10:22-11:1.

⁵⁹ See Bulpitt Direct Testimony at 27, HSPM Table 3 and response to Staff 3-5 HSPM.

1 Generator, ELL stated, “Unit 3 is expected to have similar costs to Units 1 and
2 2, but the expected costs will depend on the site specifics of the selected site.”⁶⁰
3 The market for new gas generation is tightening, costs are rising and thus it is
4 not unreasonable to expect that the third Planned Generator will experience
5 higher costs than the first two units.

6 **Q. Please elaborate.**

7 A. The first two Planned Generators have an estimated cost of \$[[REDACTED]],
8 or \$[[REDACTED]].⁶¹ But more recent gas combined cycle projects are coming in
9 at significantly higher costs. For example, recently filed testimony in Texas in
10 February 2025 mentioned increased costs associated with Entergy Texas’s 754
11 MW Legend combined cycle plant, which is now estimated to cost \$1.433
12 billion (excluding interconnection costs), or \$1,900/kW.⁶² This cost is aligned
13 with other recently announced CC projects.⁶³ In other words, several recently
14 announced natural gas combined cycle projects (similar in size to the third
15 Planned Generator) in other jurisdictions have costs more than [[REDACTED]]% higher
16 than what ELL is projecting for the third Planned Generator.

⁶⁰ Bulpitt Direct Testimony at 42:7-9. Although witness Beauchamp’s Supplemental Testimony identifies the location of the third CCCT, ELL did not provide an updated cost estimate for this proposed generator. And in a discovery response provided on March 27, 2025, ELL conceded that “[t]he cost estimate for CCCT #3 (to be located at the Waterford facility . . .) has not changed. It remains a Class 5 estimate.” ELL response to Staff 3-6 (public version) (attached as Exhibit CMK-11)

⁶¹ ELL response to Staff 3-10, HSPM (attached as HSPM Exhibit CMK-12). \$/kW cost based on 754 MW nominal capacity of each planned generator.

⁶² Direct Testimony of Sherryhan Ghanem, Public Utility Commission of Texas at 19 (Feb. 26, 2025). https://interchange.puc.texas.gov/Documents/56693_301_1472676.PDF

⁶³ See, for example, the CPCN petition of LG&E before the Kentucky Public Service regarding the Brown 12 and Mill Creek 6 CC plants, both of which are projected to cost \$2,100-\$2,200/kW (including transmission work). https://psc.ky.gov/psccef/2025-00045/rick.lovekamp%40lge-ku.com/02282025010202/04-KU_LGE_Joint_Application_2025-00045.pdf. Duke Energy Indiana similarly is petitioning for a CPCN for two new CC plants at a cost greater than \$2,000/MW. (https://iurc.portal.in.gov/entity/sharepointdocumentlocation/0940df1c-4aea-ef11-be20-001dd80ad83d/bb9c6bba-fd52-45ad-8e64-a444aef13c39?file=NEW%20CAUSE_Duke%20Energy%20Indiana_Petition_021325.pdf).

1 If the capital cost of any of the Planned Generators is greater than expected,
2 other ratepayers will pay for the remaining revenue requirement associated with
3 that cost overrun if the ESA is terminated before the end of the full 30-year
4 period.

5 ***E. Ratepayers are also at risk of bearing stranded costs if Laidley***
6 ***backs out of its project before the ESA enters into effect.***

7 **Q. What is the earliest date that the ESA could enter into effect?**

8 A. The effective date of the ESA is “the later of December 1, 2026, Commission
9 approval of the ‘System Generation Capacity Upgrades’ (as that term is defined
10 in the CIAC Agreement), or completion of the first phase (and partial
11 energization of) the Smalling Facility.”⁶⁴ Therefore, the earliest that the ESA
12 could take effect is December 1, 2026.

13 **Q. How much of the cost of the Planned Generators will be incurred prior to**
14 **December 2026?**

15 A. Based on the payment schedule for the first two Planned Generators, \$[[
16]]] will be incurred before December 1, 2026, for those two units.⁶⁵ Given
17 that the schedule for the third unit is about a year behind, I estimate that
18 approximately \$[[
19]]] would be incurred before December 2026; this
20 cost will be higher if there are capital cost overruns for this plant, as discussed
21 in the previous section.⁶⁶ Thus for all three units, approximately \$[[
]] would be incurred.

⁶⁴ Beauchamp Direct Testimony at 13:14-18.

⁶⁵ ELL response to Staff 3-5, HSPM attachment, Exhibit B, Attachment B-1 ([[
]]).

⁶⁶ Based on the schedule of milestone payments provided in HSPM Exhibit MB-2 and assuming that cost of the third Planned Generator is half of the combined cost of the other two generators.

1 **Q. How much would Laidley be responsible for contributing to the capital**
2 **costs of the Planned Generators if it terminates the CIAC agreement**
3 **before the ESA goes into effect?**

4 A. Laidley is responsible for paying [[REDACTED]] under the CIAC
5 agreement, unless Laidley and ELL jointly agree to increase this amount.⁶⁷

6 **Q. How much in stranded costs would other ratepayers be responsible for in**
7 **this scenario?**

8 A. Depending on how far along construction on the Planned Generators is when
9 the CIAC agreement is terminated, other ratepayers will be on the hook for up
10 to \$[[REDACTED]] in stranded costs if the ESA takes effect on December 1,
11 2026. If the ESA takes effect at a later date—see the testimony of NPO witness
12 Nicholas Miller—this amount could be greater.

13 **Q. Many of the risks described above stem from the premise that Laidley**
14 **might not fully renew the ESA for its 30-year term. Why should the**
15 **Commission take this risk seriously?**

16 A. The Laidley data center is specifically being built to serve artificial intelligence
17 (AI) computing demands.⁶⁸ As I described in a recent report for the Institute for
18 Energy Economics and Financial Analysis, there is significant uncertainty
19 around the future energy demands of AI.⁶⁹ For one thing, the recent release of
20 the Chinese model Deepseek, which purports to be multiple times more
21 efficient than previous large language models, underscores the possibility that

⁶⁷ HSPM Exhibit LKB-2 at 121-22 (CIAC Agreement at 6-7).

⁶⁸ Louisiana Economic Development, *Meta Selects Northeast Louisiana as Site of \$10 Billion Artificial Intelligence Optimized Data Center; Governor Jeff Landry Calls Investment 'A New Chapter' for State* (Dec. 4, 2024), <https://www.opportunitylouisiana.gov/news/meta-selects-northeast-louisiana-as-site-of-10-billion-artificial-intelligence-optimized-data-center-governor-jeff-landry-calls-investment-a-new-chapter-for-state>.

⁶⁹ IEEFA, *Data Centers Drive Buildout of Gas Power Plants and Pipelines in the Southeast* (Jan. 2025), <https://ieefa.org/sites/default/files/2025-01/UPDATED-REVIEWED-Southeast%20Gas%20Infrastructure%20and%20Data%20Cente.pdf>

1 AI could use significantly less electricity than typically forecast. At the same
2 time, AI models are currently priced far below cost and pure AI companies such
3 as OpenAI and Anthropic are currently not profitable. This indicates that a path
4 to profitability likely requires either raising prices or substantially enhancing
5 efficiency, either of which would likely result in reduced energy demands vis-à-
6 vis current forecasts.

7 My report concludes that there is likely going to be an overbuilding of electrical
8 infrastructure to serve data centers and AI computing demands.⁷⁰ To the extent
9 that this impacts Meta and the Laidley project, it could result in Laidley
10 choosing to scale back its project and/or exit the ESA before its full 30-year
11 term.

12 **V. RATEPAYERS ARE AT RISK OF PAYING FOR OTHER COSTS NOT**
13 **IDENTIFIED IN ELL’S APPLICATION**

14 **Q. What additional costs might other ratepayers be at risk of incurring that**
15 **were not identified in ELL’s filing?**

16 **A.** Broadly speaking, ratepayers run the risk of being exposed to additional costs in
17 three categories: (1) costs related to transmission mitigations and ancillary
18 services to accommodate Laidley’s load, (2) costs related to operation of the
19 Planned Generators, and (3) transmission-related costs that may be needed for
20 the Planned Generators to serve other load after termination of the ESA.

21 **Q. Please explain why it is likely that additional costs related to transmission**
22 **mitigations and ancillary services will be incurred to serve the Laidley data**
23 **center.**

⁷⁰ This may already be occurring. See recent statements from Microsoft CEO Satya Nadella regarding overbuilding of data centers. Dwarkesh Patel, *Satya Nadella – Microsoft’s AGI Plan & Quantum Breakthrough*, Dwarkesh Podcast (Feb. 19, 2025), <https://www.dwarkesh.com/p/satya-nadella>.

1 A. As described in detail in the testimony of NPO witness Nicholas Miller, there is
2 a risk that additional transmission investments will be required, beyond the
3 Customer-Specific Transmission Projects and the Mt. Olive to Sarepta facilities
4 described in ELL’s Application and the additional facilities referenced in
5 witness Beauchamp’s supplemental testimony. There may also be higher
6 ancillary services costs. These additional costs may result from transmission
7 mitigations needed to avoid transmission constraints that ELL has not yet
8 adequately evaluated, and/or mitigations related to the impact of the data
9 center’s dynamic load behavior on the power grid.

10 **Q. How would these additional costs be allocated?**

11 A. My understanding is that [[REDACTED]
12 [REDACTED]
13 [REDACTED]
14 [REDACTED]]. Therefore, these
15 additional costs would be allocated across ELL’s customer base. Existing
16 ratepayers would likely bear the majority of these costs.

17 **Q. Referring to your second category of costs, please explain why ratepayers**
18 **may be exposed to higher operating costs as a result of Laidley’s**
19 **operations.**

20 A. ELL has presented an analysis of net energy costs (net market purchases plus
21 fuel and variable operating costs) in 2028 that shows that, at least for that year,
22 net energy costs will be substantially higher with the Laidley data center load
23 and Planned Generators than they would have been under the Business Plan
24 2024 assumptions (i.e., without that new load and generation). The following
25 figure shows the results of ELL’s analysis. As the figure demonstrates, the most
26 probable outcome is that net energy costs are approximately \$[[REDACTED]]
27 higher with the new load and generation:

1 [[



2

3 **Figure 3: Expected net energy costs under BP24 Reference Case (without the**
4 **Laidley load and Planned Generators) and with the Laidley load and Planned**
5 **Generators (the “Added Load and Gen” scenario) (HSPM)⁷¹**

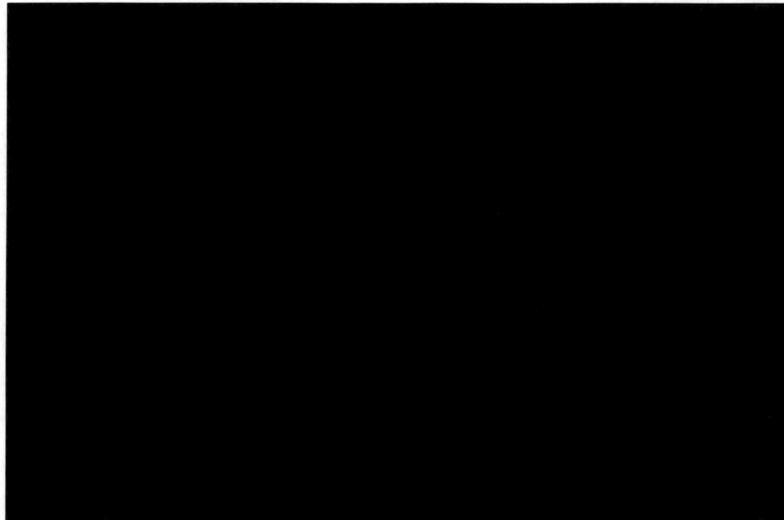
6 I expect that a substantial portion of those higher costs would be borne by
7 ELL’s retail customers.

8 The following figure presents this increase in net energy costs on a per MWh
9 basis:

⁷¹ ELL response to Sierra Club 1-4, “Sierra 1-4 Attachment (3) to Response to Sierra Club 1-4(b)_HSPM,” at 28.

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**Figure 4: Expected net energy costs shown in Figure 3
on a \$/MWh basis (HSPM)⁷²**

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It is worth noting that ELL's analysis was conducted before Laidley increased its proposed load [[REDACTED]], and therefore the impact on net energy costs is likely to be even greater.

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Q. How are operating costs recovered from Laidley and from other ratepayers?

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A. The cost of ELL's fuel and market energy purchases are recovered from all ratepayers in the Fuel Adjustment Clause (FAC), which is calculated on a per MWh basis. Therefore, if the addition of Laidley's load and the Planned Generators drives up net energy costs above what they otherwise would have been without the data center that will result in higher costs to all ELL ratepayers. According to ELL's analysis, this is the most probable outcome, at least in 2028.

⁷² *Id.*

1 **Q. How could ELL mitigate the risk that ratepayers may be exposed to higher**
2 **operating costs as a result of Laidley’s operations?**

3 A. ELL’s modeling suggests that the addition of the Laidley load and Planned
4 Generators is driving up energy market pricing at some nodes higher than what
5 it would otherwise be. Left unaddressed, this creates a form of cross-
6 subsidization that is difficult to identify as it requires modeling of what prices
7 otherwise would have been in the absence of the project. One mechanism, albeit
8 imperfect, to attempt to address this effect and minimize the burden on other
9 ratepayers would be periodically (perhaps at the time of ELL’s base rate case)
10 perform a nodal simulation of net energy costs (\$/MWh) with and without the
11 data center and Planned Generators. The difference in expected energy cost
12 (\$/MWh) could be applied as a credit to the Fuel Adjustment Clause for non-
13 Laidley ratepayers, with Laidley making up the difference.

14 **Q. Referring to your third category of additional costs, please explain why**
15 **additional investments may be required for the Planned Generators to**
16 **serve other load if Laidley does not fully renew the ESA.**

17 A. As discussed in the prior section, ELL’s economic argument in this case rests
18 on the ability of the Planned Generators to serve other load in the event that
19 Laidley decides not to fully renew the ESA. However, if Laidley decides not to
20 renew the ESA in 2041, that would mean that fully [■] % of ELL’s total
21 load⁷³ would be withdrawn from ELL’s system in North Louisiana. And
22 although the two Planned Generators located in North Louisiana would remain
23 operational to serve other ELL load, the bulk of that load is located in South
24 Louisiana. This would significantly impact power flows on ELL’s transmission
25 system.

⁷³ See Figure 1 above.

1 **Q. Has ELL done any power flow modeling to determine whether**
2 **transmission investments, substation upgrades or other mitigations would**
3 **be required to allow the Planned Generators to serve other ELL load?**

4 A. No.⁷⁴ However, if such investments and mitigations turn out to be needed, these
5 are all costs that would be recovered in rates from non-Laidley customers.

6 **VI. CONCLUSION AND RECOMMENDATIONS**

7 **Q. Please state your conclusions.**

8 A. My conclusions are as follows:

- 9 • Laidley’s proposed data center would represent a significant increase to
10 ELL’s load, and ELL is proposing a major investment in generation and
11 transmission to serve it. Given these circumstances, it is critical to ensure
12 that other ratepayers are not at risk of bearing additional costs, including
13 stranded costs, that would not exist absent Laidley’s data center.
- 14 • Although ELL’s Application was filed assuming Laidley’s data center load
15 would be [REDACTED] MW, the project has since expanded in size to [REDACTED]
16 MW. ELL has justified its argument that the generation and transmission
17 investments needed to serve this load are in the public interest in part based
18 on the cost allocation and terms of an Electric Service Agreement
19 negotiated for the original, lower load. The final terms of the Electric
20 Service Agreement for the [REDACTED] MW project have not been presented to
21 the Commission.
- 22 • ELL’s argument that the project is in the public interest is also based, in
23 part, on its economic analysis that purports to show a net benefit to other
24 ratepayers even if Laidley stops taking service under the ESA after its initial
25 15-year term. This net benefit is highly dependent on ELL’s assumption

⁷⁴ ELL response to NPO 7-1(c) (attached as Exhibit CMK-6).

1 that it will require a substantial amount of new natural gas generation at the
2 same time as the ESA is expiring; under ELL’s analysis, this capital cost
3 can be avoided if the ESA terminates after 15 years and the three Planned
4 Generators can shift to serving other ELL load. ELL’s analysis is highly
5 sensitive to assumptions around load growth, future MISO capacity market
6 prices, and the timing of when Laidley decides to give notice not to renew
7 its contract. In reality, ratepayers are exposed to hundreds of millions of
8 dollars of stranded cost risk under various scenarios that could materialize
9 if: (a) less natural gas generation is needed in the future than ELL currently
10 forecasts and MISO capacity market prices are lower than ELL currently
11 forecasts, (b) new natural gas generation is substantially built before
12 Laidley gives notice of terminating the contract, (c) the Planned Generators
13 experience significant cost overruns, or (d) Laidley withdraws from the
14 project before the ESA enters into force.

15 • As described in the testimony of Nicholas Miller, ELL’s Application fails to
16 consider additional transmission system mitigations, including increased
17 ancillary services purchases, that may be needed to serve this new, massive
18 data center load. Absent other cost recovery provisions, these costs would
19 be borne by other ratepayers.

20 • The ESA fails to include a true-up for operating costs despite ELL’s
21 admission that, in 2028 alone, Entergy is likely to pay about [REDACTED]
22 [REDACTED]] more in net energy costs than it would in the absence of Laidley’s
23 project. I anticipate that a substantial portion of those costs would be borne
24 by ELL’s retail customers.

25 **Q. What do you recommend to the Commission?**

26 A. I recommend the Commission deny ELL’s Application as proposed, based on
27 the risks identified in my testimony that other ratepayers could be on the hook

1 for hundreds of millions, if not billions of dollars, of additional costs associated
2 with serving Laidley's data center.

3 If the Commission is nevertheless inclined to approve ELL's requests, I would
4 urge that such approval be conditioned on the following:

- 5 • The Commission should review the final terms of the ESA, and approve
6 such terms before issuing CPCNs for the Planned Generators.
 - 7 ○ To enable the Commission's review, Staff and other parties should
8 be given an adequate opportunity to review the final ESA terms, and
9 to provide testimony and briefing on such terms.
- 10 • The CPCNs for the Planned Generators should not be issued unless and
11 until ELL and Laidley extend the initial term of the ESA to 25 years. This
12 will more closely match the depreciable life of the gas plants and reduce the
13 risk of stranded costs to other ratepayers.
- 14 • The Commission should inform ELL that any costs associated with the
15 Planned Generators incurred before the ESA enters into service will be
16 disallowed for cost recovery from other ratepayers if Laidley's project is
17 cancelled. Disallowing cost recovery would be reasonable in that the
18 prudence of the Planned Generators depends on being able to recover the
19 costs from the Laidley load.
- 20 • The Commission should require a credit to be applied to the FAC charge for
21 other customers to account for the possibility that Laidley's load drives up
22 net energy costs for all ratepayers, as described in Section V of my
23 testimony.
- 24 • If, as a result of subsequent studies, analysis, or operating experience,
25 additional transmission facilities are identified as necessary to serve the
26 Customer's data center beyond those identified in (a) Table 1 on pages 13-
27 14 of the Kline Direct Testimony, and (b) ELL's response to discovery

1 request LEUG 7-8 (public redacted version),⁷⁵ no portion of the cost of such
2 facilities will appear in either ELL's retail or wholesale rates.

3 **Q. Does this conclude your testimony?**

4 **A. Yes.**

⁷⁵ ELL response to LEUG 7-8 (public redacted version) (attached as Exhibit CMK-2).

BEFORE THE LOUISIANA PUBLIC SERVICE COMMISSION

ENTERGY LOUISIANA LLC, ex parte

**IN RE: APPLICATION FOR
APPROVAL OF GENERATION AND
TRANSMISSION RESOURCES IN
CONNECTION WITH SERVICE TO A
SINGLE CUSTOMER FOR A PROJECT
IN NORTH LOUISIANA**

DOCKET NO. U-37425

AFFIDAVIT

I, Catherine Kunkel, being first duly sworn, deposes and says that she is the same Catherine Kunkel whose Direct Testimony accompanies this affidavit; that such testimony was prepared by her; that she is familiar with the contents thereof; that the facts set forth therein are true and correct to the best of her knowledge, information and belief; and that she adopts the same as his sworn testimony in this proceeding.

Catherine Kunkel

Catherine Kunkel

16

Sworn to and subscribed before me on this 4 day of April, 2024, in San Juan, Puerto Rico, who I identified through personal knowledge, resident of West Virginia, USA.

[Signature]
NOTARY PUBLIC
My commission expires: N/A

