

**BEFORE THE
LOUISIANA PUBLIC SERVICE COMMISSION**

***EX PARTE:* APPLICATION OF)
ENTERGY LOUISIANA, LLC, FOR)
APPROVAL OF THE MAGNOLIA)
CAPACITY CREDIT PURCHASE)
AGREEMENT, COST RECOVERY,)
AND RELATED RELIEF)**

DOCKET NO. U- 37/93

DIRECT TESTIMONY

OF

PHONG D. NGUYEN

ON BEHALF OF

ENTERGY LOUISIANA, LLC.

PUBLIC REDACTED VERSION

MAY 2024

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EXHIBITS

Exhibit PDN-1

List of Prior Testimony

I. INTRODUCTION AND PURPOSE

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

A. My name is Phong D. Nguyen. I am employed by Entergy Services, LLC (“ESL”)¹ as Director, Advanced Economic Planning for the System Planning & Operations (“SPO”) organization. My business address is 2107 Research Forest Drive, The Woodlands, Texas 77380.

Q2. ON WHOSE BEHALF ARE YOU SUBMITTING TESTIMONY?

A. I am submitting this Direct Testimony to the Louisiana Public Service Commission (“LPSC” or the “Commission”) on behalf of Entergy Louisiana, LLC (“ELL” or “the Company”).

Q3. WHAT ARE YOUR RESPONSIBILITIES AS DIRECTOR, ADVANCED ECONOMIC PLANNING FOR ESL?

A. I am responsible for conducting economic and financial evaluations of generation supply resources for the EOCs, including ELL. In that function, I manage a staff that conducts decision support analyses relating to generation supply investments, including economic evaluations and analyses relating to power market conditions.

¹ ESL, formerly known as Entergy Services, Inc., is an affiliated service company that provides engineering, planning, accounting, legal, technical, regulatory, and other administrative support services to each of the Entergy Operating Companies (“EOCs”), which are Entergy Arkansas, LLC, Entergy Louisiana, LLC, Entergy Mississippi, LLC, Entergy New Orleans, LLC, and Entergy Texas, Inc.

1 Q4. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE AND EDUCATION.

2 A. I earned a Bachelor of Science in Management with a concentration in Finance from Tulane
3 University in 1998. In 2000, I earned a Master of Business Administration (“MBA”)
4 degree from the University of New Orleans, and I began my employment with what is now
5 ESL thereafter, in January 2001. Prior to obtaining my MBA, I worked as a staff consultant
6 at an accounting and consulting firm.

7
8 Q5. HAVE YOU PREVIOUSLY TESTIFIED BEFORE A REGULATORY COMMISSION?

9 A. Yes. Please see Exhibit PDN-1 for a list of my prior testimony.
10

11 Q6. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

12 A. My testimony supports the Company’s Application for approval of its capacity credit
13 purchase agreement (“Magnolia CCPA”) for 290 megawatts (“MW”) of capacity-related
14 benefits (Midcontinent Independent System Operator, Inc. (“MISO”) Zonal Resource
15 Credits (“ZRCs”) or “Capacity Credits”) from the Magnolia Power Generating Station, a
16 combined-cycle gas turbine (“CCGT”) generation facility located in Iberville Parish,
17 Louisiana (the “Magnolia Facility”), and the relief requested therein. Specifically, I
18 describe the August 2023 Request For Proposals (“RFP”) issued by Kindle Energy LLC
19 (“Kindle”), which solicited bids for capacity, energy, or bundled energy and capacity from
20 the Magnolia Facility (“2023 Kindle RFP”). I also sponsor and describe the economic
21 analysis conducted by SPO that supported the bid submitted by ELL into the 2023 Kindle
22 RFP, and I explain the reasons underlying the Company’s determination that, among the

alternatives considered by ELL, the proposed offer was the appropriate choice due to its cost effectiveness and timing.

II. THE 2023 KINDLE RFP

Q7. PLEASE DESCRIBE THE 2023 KINDLE RFP.

A. As I mentioned above and as described by Company witness Shawn Allen, the 2023 Kindle RFP solicited bids for capacity, energy, or bundled energy and capacity from the Magnolia Facility. The RFP was independently administered by GDS Associates, Inc. The RFP allowed for offers on up to 290 MW, with a 3-to-20-year term, beginning on June 1, 2025.

Q8. PLEASE DESCRIBE THE MAGNOLIA FACILITY.

A. As described by Mr. Allen, the Magnolia Facility will be an approximately 700 MW CCGT generation facility located in Iberville Parish, Louisiana. The Magnolia Facility will include a GE 7HA.03 gas turbine, a GE STF-A650 steam turbine, and a triple pressure with reheat Heat Recovery Steam Generator ("HRSG"). It will be constructed with the capability of combusting up to 50% hydrogen as a fuel source.²

As discussed by Mr. Jones, Magnolia Power already has a capacity sale and tolling agreement in place to supply approximately 400 MW of CCGT capacity from the Magnolia Facility over a 20-year term to the 1803 Electric Cooperative, Inc. ("1803"), an alliance of five utility groups: Beauregard Electric Cooperative, Inc.; Claiborne Electric Cooperative,

² ELL is not currently aware of near-term plans to build a hydrogen supply to the Magnolia site that would allow for the blending and combustion of hydrogen at the facility.

1 Inc.; Northeast Louisiana Power Cooperative, Inc.; South Louisiana Electric Cooperative
2 Association; and Washington-St. Tammany Electric Cooperative, Inc.³

3
4 Q9. PLEASE DESCRIBE THE OFFER SUBMITTED BY ELL INTO THE 2023 KINDLE
5 RFP.

6 A. ELL submitted an offer for 290 MW of capacity-related benefits (ZRCs or Capacity
7 Credits) with a 10-year term at a price of [REDACTED]
8 [REDACTED] for a total cost over the ten year term of approximately [REDACTED]⁴ I
9 describe the Company's assessment and assumptions used to identify and derive the
10 calculation of that bid price and the benefits to customers of the Magnolia CCPA below.

11 ELL's offer was shortlisted on November 3, 2023, and the parties ultimately
12 executed an agreement on February 21, 2024.

13
14 **III. ECONOMIC ANALYSIS**

15 Q10. PLEASE DESCRIBE THE ASSESSMENT CONDUCTED BY SPO SUPPORTING THE
16 BID PRICE RECOMMENDATION FOR ELL INTO THE 2023 KINDLE RFP.

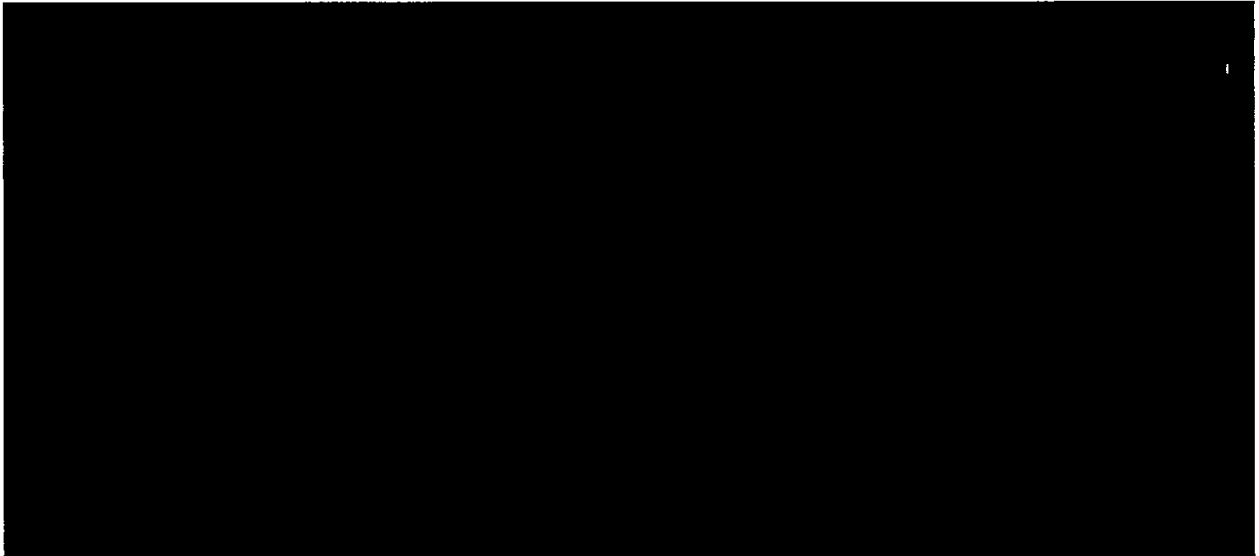
17 A. SPO performed an assessment of the potential cost and value of the Magnolia CCPA and
18 developed a bid price recommendation for ELL. The project team estimated the fixed cost
19 associated with the Magnolia Facility and netted out the energy margins associated with

³ In its Order approving and certifying 1803's capacity sale and tolling agreement with Magnolia Power in Docket U-35927, the Commission determined that the agreement served the public convenience and necessity and was in the public interest.

⁴ As I describe below, the [REDACTED] is based on the purchase price of [REDACTED]
[REDACTED] over the 10-year term of the agreement.

1 the facility as shown in HSPM Figure 1 below as line 2 labeled “Magnolia Levelized Fixed
2 Cost (Net of Energy Margin).” This is a proxy for Kindle’s capacity cost.

3 [REDACTED]



4
5 The energy margins are based on SPO’s internal modeling of the resource from Business
6 Plan 2023 (“BP23”). The project team then compared the fixed cost to ELL’s cost of a
7 new build Combustion Turbine (“CT”) based on BP23 and shown as line 3 in HSPM Figure
8 1. Line 3 is a proxy for ELL’s avoided cost should it need to procure long-term capacity
9 absent the Magnolia CCPA transaction. I also charted IHS’ planning resource auction
10 (PRA) forecast for MISO South (line 5) and [REDACTED]
11 [REDACTED] (line 6). These lines represent other market comparables for ELL to
12 consider when deciding on its bid price.

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11 Q11. PLEASE DESCRIBE THE ASSUMPTIONS UNDERLYING THE COMPANY'S
12 ECONOMIC ANALYSIS OF THE MAGNOLIA CCPA.

13 A. The following assumptions were utilized by the Company in the economic analysis of the
14 Magnolia Facility:

Table 2: Magnolia CCGT Assumptions

Installed Cost	\$750 million
Fixed O&M Rate	\$15.46/kW-year
Project In-Service Date	6/1/2025
Full Capacity	725 MW
Evaluation Period	2025-2054
ELL Cost of Capital	██████
Alternative Cost of Capital	██████

Q12. WHAT SENSITIVITY ANALYSES WERE PERFORMED?

A. In addition to using the alternative cost of capital, a proxy for Kindle's cost of capital, to develop the proposed bid, I also estimated the capacity value based on ELL's cost of capital.

Q13. PLEASE SUMMARIZE THE RESULTS OF THE SENSITIVITY EVALUATION.

A. Utilizing ELL's cost of capital would

Q14. ARE THERE ANY OTHER FACTORS TO CONSIDER?

A. Yes. Since the completion of my assessment and acceptance of ELL's bid proposal, ESL has updated its CT capital cost estimate based on ESL's development of a CT project for another EOC. [REDACTED]

1

[REDACTED]

2

[REDACTED]

3

[REDACTED]

4

Also, the Magnolia CCPA transaction is a known, fixed price for a set 290 ZRCs per MISO season. This helps ELL meet its planning reserve margin requirement for each season while also mitigating ELL customers' exposure to price volatility.

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8

Q15. WHAT DO YOU CONCLUDE BASED ON THE ECONOMIC EVALUATION OF THE MAGNOLIA CCPA?

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A. The Magnolia CCPA transaction is a reasonably-priced capacity transaction relative to ELL's alternative capacity cost, providing economic value to customers while also helping ELL meet its planning requirements while providing stable-priced capacity.

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Q16. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

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A. Yes, at this time.


AFFIDAVIT

STATE OF TEXAS

COUNTY OF MONTGOMERY

NOW BEFORE ME, the undersigned authority, personally came and appeared, **Phong Nguyen**, 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.

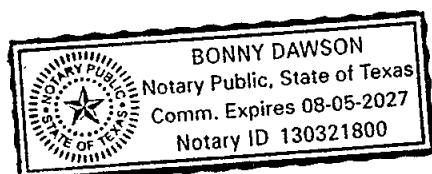

Phong Nguyen

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 24th DAY OF April 2024


NOTARY PUBLIC

My commission expires: 08/05/2027



Listing of Previous Testimony Filed by Phong D.Nguyen

<u>DATE</u>	<u>TYPE</u>	<u>SUBJECT MATTER</u>	<u>REGULATORY BODY</u>	<u>DOCKET NO.</u>
10/16/2008	Direct	Little Gypsy	LPSC	U-30192 (Phase II)
03/16/2010	Direct	New Nuclear	LPSC	U-31125
07/07/2011	Direct	Carville PPA	LPSC	U-32031
07/15/2011	Direct	Acquisition of Hinds Generating Facility	MPSC	2011-UA-210
08/25/2015	Direct	St. Charles Power Station	LPSC	U-33770
09/30/2016	Direct	ELL Deactivation Report	LPSC	U-33950
10/07/2016	Direct & Rebuttal	Montgomery County Power Station	PUCT	46416
11/02/2016	Direct	Lake Charles Power Station	LPSC	U-34283
11/15/2016	Direct	Occidental Taft PPA Amendment	LPSC	U-34303
02/23/2017	Direct	Carville PPA	LPSC	U-34401
10/12/2018	Direct	Choctaw Generating Station Acquisition	MPSC	2018-UA-204
12/20/2018	Direct & Rebuttal	Sunflower Solar Facility Acquisition	MPSC	2018-UA-267
04/2020	Direct & Rebuttal	Hardin / MCPS Acquisition	PUCT	50790
08/2020	Direct & Rebuttal	Liberty County Solar CCN	PUCT	51215
09/2021	Direct & Rebuttal	Orange County Advanced Power Station CCN	PUCT	52487
12/2022	Direct	Entergy Mississippi EDGE Resource	MPSC	2022-UA-153
01/2023	Direct	ELL 2022 Solar Portfolio CCN Application	LPSC	U-36685
03/2024	Direct	ELL Bayou Power Station Application	LPSC	U-37131
05/2024	Direct & Answering	Louisiana Public Service Commission v. System Energy Resources, Inc.	FERC	EL21-56-002