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SOAH DOCKET NO. 473-22-04394 PUC DOCKET NO. 53719

APPLICATION OF ENTERGY TEXAS, STATE OFFICE § **INC. FOR AUTHORITY TO CHANGE** § OF RATES Ş **ADMINISTRATIVE HEARINGS**

RESPONSE OF ENTERGY TEXAS, INC. TO SIERRA CLUB'S FIRST REQUEST FOR INFORMATION: SIERRA CLUB'S 1:1 THROUGH 13

Entergy Texas, Inc. ("ETI" or the "Company") files its Response to Sierra Club's First Request for Information. The response to such request is attached and is numbered as in the request. An additional copy is available for inspection at the Company's office in Austin, Texas.

ETI believes the foregoing response is correct and complete as of the time of the response, but the Company will supplement, correct or complete the response if it becomes aware that the response is no longer true and complete, and the circumstance is such that failure to amend the answer is in substance misleading. The parties may treat this response as if it were filed under oath.

Respectfully submitted,

<u>Kristen F. Gates</u> Kristen Yates

ENTERGY SERVICES, LLC 919 Congress Avenue, Suite 701 Austin, Texas 78701 Office: (512) 487-3962 Facsimile: (512) 487-3958

Attachments: SIERRA CLUB'S 1:1 THROUGH 13

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Response of Entergy Texas, Inc. to Sierra Club's First Request for Information has been sent by either hand delivery, electronic delivery, facsimile, overnight delivery, or U.S. Mail to the party that initiated this request in this docket on this the 6th day of September 2022.

<u>Kristen F. Gates</u> Kristen Yates

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Response of: Entergy Texas, Inc. to the First Set of Data Requests of Requesting Party: Sierra Club Prepared By: Counsel Sponsoring Witness: N/A Beginning Sequence No. EV200 Ending Sequence No. EV200

Question No.: SIERRA 1-1

Part No.:

Addendum:

Question:

Please provide all public and confidential responses to Requests for Information issued by Entergy or any other party to this proceeding.

Response:

All public responses to requests for information ("RFI") in this proceeding are publicly available Public Utility Commission Texas' Interchange on the of at http://www.interchange.puc.texas.gov. All confidential or highly sensitive materials included in Entergy Texas, Inc.'s responses to RFIs are included on the secure ShareFile site provided to the parties that have executed protective order certifications in this proceeding.

Response of: Entergy Texas, Inc. to the First Set of Data Requests of Requesting Party: Sierra Club Prepared By: Counsel Sponsoring Witness: N/A Beginning Sequence No. EV201 Ending Sequence No. EV201

Question No.: SIERRA 1-2

Part No.:

Addendum:

Question:

Please provide all confidential, unredacted testimony, exhibits, work papers, and schedules supporting Entergy's application in electronic, machine-readable format with formulae intact, including all confidential or highly sensitive testimonies, exhibits, work papers, and schedules supporting Entergy's application.

Response:

All confidential or highly sensitive materials included with Entergy Texas, Inc.'s application have been provided in native format to the parties that have executed protective order certifications in this proceeding via secure ShareFile site.

Response of: Entergy Texas, Inc. to the First Set of Data Requests	1 2	Laura Berryman itnesses: Andrew Dornier,
of Requesting Party: Sierra Club	Beverley Gale Beginning Sequence No. EV584 Ending Sequence No. EV585	
Question No.: SIERRA 1-3	Part No.:	Addendum:

Question:

Please refer to the Direct Testimony of Beverley Gale. Please provide all joint ownership or operating agreements, including all modifications, for the R. S. Nelson and Big Cajun II power plants.

Response:

Information included in the response contains highly sensitive protected ("highly sensitive") materials. Specifically, the responsive materials are protected pursuant to Texas Government Code Sections 552.101 and/or 552.110. Highly sensitive materials will be provided pursuant to the terms of the Protective Order in this docket.

See the highly sensitive attachments (TP-53719-00SIE001-X003-001_HSPM through TP-53719-00SIE001-X003-003_HSPM). Highly sensitive materials have been included on the secure ShareFile site provided to the parties that have executed protective order certifications in this proceeding.

DESIGNATION OF PROTECTED MATERIALS PURSUANT TO PARAGRAPH 4 OF DOCKET NO. 53719 PROTECTIVE ORDER

The Response to this Request for Information includes Protected Materials within the meaning of the Protective Order in force in this Docket. Public Information Act exemptions applicable to this information include Tex. Gov't Code Sections 552.101 and/or 552.110. ETI asserts that this information is exempt from public disclosure under the Public Information Act and subject to treatment as Protected Materials because it concerns competitively sensitive commercial and/or financial information and/or information designated confidential by law.

Counsel for ETI has reviewed this information sufficiently to state in good faith that the information is exempt from public disclosure under the Public Information Act and merits the Protected Materials Designation.

> <u>Kristen F. Yates</u> Entergy Services, LLC.

Response of: Entergy Texas, Inc. to the First Set of Data Requests of Requesting Party: Sierra Club Prepared By: Phong D. Nguyen Sponsoring Witness: Anastasia R.Meyer Beginning Sequence No. LC305 Ending Sequence No. LC306

Question No.: SIERRA 1-4

Part No.:

Addendum:

Question:

Please refer to the Direct Testimony of Anastasia R. Meyer. Please provide unredacted, in native format with all formulae intact, all analyses or assessments that study the value of continued operation (e.g., all retirement studies, unit condition assessments, or deactivation assessments) conducted since 2015, for R.S. Nelson Unit 6, including, but not limited to, all studies, presentations, reports, or other assessments conducted to determine how to comply with any existing, impending, or potential environmental regulation.

Response:

Pursuant to an agreement with counsel for Sierra Club, in response to Sierra 1-4 and 1-5, Entergy Texas, Inc. will provide the most recent deactivation analysis or assessment available for the units requested.

Information included in the response contains highly sensitive protected ("highly sensitive") materials. Specifically, the responsive materials are protected pursuant to Texas Government Code Sections 552.101 and/or 552.110. Highly sensitive materials will be provided pursuant to the terms of the Protective Order in this docket.

See the attachment (TP-53719-00SIE001-X004_HSPM). Highly sensitive materials have been included on the secure ShareFile site provided to the parties that have executed protective order certifications in this proceeding.

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Counsel for ETI has reviewed this information sufficiently to state in good faith that the information is exempt from public disclosure under the Public Information Act and merits the Protected Materials Designation.

> <u>Kristen F. Yates</u> Entergy Services, LLC.

Response of: Entergy Texas, Inc.	Prepared By: Anastasia R. Meyer, Phong D. Nguyen
to the First Set of Data Requests of Requesting Party: Sierra Club	Sponsoring Witness: Anastasia R. Meyer Beginning Sequence No. LC366 Ending Sequence No. LC367

Question No.: SIERRA 1-5

Part No.∶

Addendum:

Question:

Please provide unredacted, in native format with all formulae intact, all analyses or assessments that study the value of continued operation (e.g., all retirement studies, unit condition assessments, or deactivation assessments) conducted since 2015, for Big Cajun II, Unit 3, including, but not limited to, all studies, presentations, reports, or other assessments conducted to determine how to comply with any existing, impending, or potential environmental regulation.

Response:

Pursuant to an agreement with counsel for Sierra Club, in response to Sierra 1-4 and 1-5, Entergy Texas, Inc. will provide the most recent deactivation analysis or assessment available for the units requested.

Information included in the response contains highly sensitive protected ("highly sensitive") materials. Specifically, the responsive materials are protected pursuant to Texas Government Code Sections 552.101 and/or 552.110. Highly sensitive materials will be provided pursuant to the terms of the Protective Order in this docket.

While not a retirement study or unit condition assessment, please see highly sensitive Exhibit ARW-4 to the Direct Testimony of Anastasia R. Meyer for the deactivation assumption used for Big Cajun 2, Unit 3 in 2022 Business Plan Supply Plans and the basis for that assumption. See also the highly sensitive attachment (TP-53719-00SIE001-X005_HSPM). As a minority owner, Entergy Texas, Inc. ("ETI") has limited control over the ongoing operations and determined deactivation date of the facility. As discussed in the Direct Testimony of Ms. Meyer, Section B, starting on page 15, Cleco Cajun, LLC, the operator of the plant, will determine when Big Cajun 2, Unit 3, will be deactivated. Cleco Cajun, LLC has not shared any deactivation analyses with ETI. Highly sensitive materials have been included on the secure ShareFile site provided to the parties that have executed protective order certifications in this proceeding.

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Counsel for ETI has reviewed this information sufficiently to state in good faith that the information is exempt from public disclosure under the Public Information Act and merits the Protected Materials Designation.

> Kristen F. Yates Entergy Services, LLC.

Response of: Entergy Texas, Inc.	Prepared By: Phong D. Nguyen; Scott McWilliams; Daniel Boratko	
to the First Set of Data Requests of Requesting Party: Sierra Club	Sponsoring Witness: Anastasia R. Meyer Beginning Sequence No. LC353 Ending Sequence No. LC363	

Question No.: SIERRA 1-6

Part No.:

Addendum:

Question:

For each retirement study or unit condition assessment in response to Sierra Club I :4 or 1.5, above:

- a. State which modeling software was used to conduct the analysis.
- b. State the date that the analysis was performed.
- c. State whether the units were modeled with an economic (market) or selfcommitment (must run) status for each year of the analysis.
- d. State the date of each forecast or projection used in the analysis.
- e. State the regulation or rational behind each retirement date(s) studied.
- f. Provide all underlying workbooks with formulas intact that were used to develop model input assumptions.
- g. Identify all transmission grid updates or changes that would be needed to allow for the retirement of RS. Nelson or Big Cajun II Unit 3.
- h. Produce all analyses or assessments of the impact that retirement of each unit would have on capacity adequacy, transmission grid stability, transmission grid support, voltage support, or transmission system reliability.
- i. Provide each of the following inputs for each modeled scenario:
 - i. Heat rate (Btu)
 - ii. Projected Ongoing Capital expenditures(\$)

- iii. Variable Operation and Maintenance (\$/MWh)
- iv. Fixed Operation and Maintenance (\$/MW)
- v. Environmental compliance capital expenditures
- vi. All transmission upgrade costs assumed, if any (\$);
- vii. MISO energy price forecasts (with and without CO2 price);
- viii. MISO capacity price forecasts (with and without CO2 price);
- ix. CO2 price forecasts
- x. Coal price (\$/MMBtu)
- xi. Gas price (\$/MMBtu)
- j. For each replacement resource available to the model, provide each of the following inputs for each resource at the highest level of granularity used in conducting the analysis:
 - i. Replacement resource options
 - ii. Replacement resource size (MW)
 - iii. Year replacement resource is available (year)
 - iv. Cost of replacement resource option (\$/MW)
 - v. Annual capacity factor
- k. Provide all model outputs by unit, including:
 - i. Annual generation (MWh)
 - ii. Fuel Costs (\$)
 - iii. VOM Costs(\$)
 - iv. FOM Costs (\$)
 - v. Capital expenditures(\$)
 - vi. Other capital expenditures(\$)

- vii. Energy and ancillary market revenues(\$)
- 1. Provide all post-processing workbooks with formulas intact that were used to analyze study results outside the model.

Response:

Information included in the response contains highly sensitive protected ("highly sensitive") materials. Specifically, the responsive materials are protected pursuant to Texas Government Code Sections 552.101 and/or 552.110. Highly sensitive materials will be provided pursuant to the terms of the Protective Order in this docket.

- a. AURORA Electric Market Model, Excel, and Strategic Energy & Risk Valuation Model (SEERVM).
- b. August 2021
- c. Nelson 6 was modeled using economic dispatch for each year of the analysis.
- d. See the highly sensitive attachment (TP-53719-00SIE001-X006-001_HSPM) specifically the column for BP21.
- e. The 2026 and 2030 deactivation range for this assessment was chosen for the following reasons:
 - Nelson 6 provides a bridge in the near-term, as ETI works to modernize its fleet, including the addition of OCAPS in 2026;
 - The resource is subject to increased environmental regulation and scrutiny, resulting in increased cost risk and uncertainty;
 - Based on an assessment of implementation under the Regional Haze Program, there is an expectation that investment in emission controls will be required if the facility operated into the 2030s; and
 - As the resource ages, significant investment (e.g., repowering the facility to gas) may could increase cost risk to customers.
- f. See the highly sensitive attachment (TP-53719-00SIE001-X006-002_HSPM) for the AURORA model input assumptions. See also the highly sensitive attachments (TP-53719-00SIE001-X006-003_HSPM through TP-53719-00SIE001-X006-011 HSPM)
- g. Violations requiring mitigation following Nelson 6 deactivation are listed below. Additional details are included in the highly sensitive attachment (TP-53719-00SIE001-X006-012_HSPM).

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The constraints listed above are mitigated by the following projects:

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- h. Transmission grid support, voltage support, and transmission system reliability studies were performed through steady state NERC TPL 001 P0-P7 analysis and MISO NRIS Deliverability analysis. The highly sensitive attachments (TP-53719-00SIE001-X006-013_HSPM, TP-53719-00SIE001-X006-014_HSPM, and TP-53719-00SIE001-X006-015_HSPM) contain the study results of the following deactivation scenarios:
 - _____

The highly sensitive attachments (TP-53719-00SIE001-X006-016_HSPM and TP-53719-00SIE001-X006-017_HSPM) contain the study results of the following deactivation scenarios:



i.

- i. A full load heat rate of was used for Nelson 6.
- See the highly sensitive attachment provided in the Company's response to Sierra Club 1-4 (TP-53719-00SIE015-X004-001_HSPM), specifically rows 6 (2026 scenario), 11 (2028 scenario), and 16 (2030 scenario) of the "Deactivation Scenario Summary" tab.
- iii. See the highly sensitive attachment (TP-53719-00SIE001-X006-018_HSPM) for generic VOM costs included in the AURORA model.
- iv. See the highly sensitive attachment provided in the Company's response to Sierra Club 1-4 (TP-53719-00SIE001-X004-001_HSPM) specifically rows 7-9 (2026 scenario), 12-14 (2028 scenario), and 17-19 (2030 scenario) of the "Deactivation Scenario Summary" tab.
- v. Environmental compliance capital expenditures are assumed to be \$6.5M in all scenarios for ELG-CCR New Landfill Cell Construction (row 114 in each scenario in the highly sensitive attachment provided in the Company's response to Sierra Club 1-4 (TP-53719-00SIE001-X004-001_HSPM)).
- vi. No transmission upgrades were assumed in the analysis.
- vii. Power market prices are not an input to the AURORA model. Power market prices are a result of the input assumptions, constraints, and generating unit commitment and dispatch performed by AURORA.
- viii. See the highly sensitive attachments (TP-53719-00SIE001-X006-019 HSPM and TP-53719-00SIE001-X006-020 HSPM).
- ix. See the Company's response to subpart i.iii.
- x. See the Company's response to subpart i.iii.
- xi. See the Company's response to subpart i.iii.

j.

- i. See the highly sensitive attachment provided in the Company's response to Sierra Club 1-4 (TP-53719-00SIE001-X004-001_HSPM).
- ii. 380 MW.
- iii. 2026. See the highly sensitive attachment provided in the Company's response to Sierra Club 1-4 (TP-53719-00SIE001-X004-001_HSPM).
- iv. See the Company's response to subpart f, specifically highly sensitive attachment (TP-53719-00SIE001-X006-003_HSPM).
- v. Capacity factor is not an input used in conducting the analysis.

k.

- i. See the Company's response to subpart i.iii.
- ii. See the Company's response to subpart i.iii.
- iii. There are no specific VOM cost outputs, but these costs are embedded in the variably supply cost outputs of the AURORA model. See the Company's response to subpart f, specifically highly sensitive attachment (TP-53719-00SIE001-X006-005_HSPM).
- iv. This is not an output of the AURORA model. See the Company's response to subpart i.iv for the input information.
- v. This is not an output of the AURORA model. See the Company's response to subpart i.v for the input information.
- vi. This is not an output of the AURORA model. See the Company's response to subpart i.ii for the input information.
- vii. For the forecasted annual energy revenue for Nelson 6, see the Company's response to subpart i.iii. The ancillary service market is not modeled in AURORA.
- 1. See the highly sensitive attachment provided in the Company's response to Sierra Club 1-4 (TP-53719-00SIE001-X004-001_HSPM). See also the highly sensitive attachments (TP-53719-00SIE001-X006-021_HSPM, TP-53719-00SIE001-X006-022_HSPM, and TP-53719-00SIE001-X006-023_HSPM).

Highly sensitive attachments are included on the secure ShareFile site provided to the parties that have executed protective order certifications in this proceeding.

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Counsel for ETI has reviewed this information sufficiently to state in good faith that the information is exempt from public disclosure under the Public Information Act and merits the Protected Materials Designation.

> Kristen F. Yates Entergy Services, LLC.

Response of: Entergy Texas, Inc.Prepared By: N/Ato the First Set of Data RequestsSponsoring Witness: N/Aof Requesting Party: Sierra ClubBeginning Sequence No. EV1025Ending Sequence No. EV1025

Question No.: SIERRA 1-6R

Part No.:

Addendum:

Question:

For RS. Nelson Unit 6 and Big Cajun II Unit 3, please provide the following historical annual data from 2011 and through 2020, and by month as available for 2021:

- a. Installed Capacity
- b. Unforced Capacity
- c. Capacity Factor
- d. Equivalent Availability Factor (EAF)
- e. HeatRate
- f. Forced or random outage rate
- g. Effective forced outage rate (EFORd)
- h. Fixed O&M costs
- i. Non-Fuel Variable O&M costs
- j. Fuel Costs (by fuel type)

Response:

Response of: Entergy Texas, Inc.Prepared By: N/Ato the First Set of Data RequestsSponsoring Witness: N/Aof Requesting Party: Sierra ClubBeginning Sequence No. EV202Ending Sequence No. EV202

Question No.: SIERRA 1-7

Part No.:

Addendum:

Question:

For RS. Nelson Unit 6 and Big Cajun II Unit 3, for each of the years 2021 through 2030, please identify the Company's most recent projection of:

- a. Installed Capacity
- b. Unforced Capacity
- c. Capacity factor
- d. Availability
- e. Heat rate
- f. Forced or random outage rate
- g. Fixed O&M cost
- h. Variable O&M cost
- i. Fuel cost (by fuel type)

Response:

Response of: Entergy Texas, Inc.Prepared By: N/Ato the First Set of Data RequestsSponsoring Witness: N/Aof Requesting Party: Sierra ClubBeginning Sequence No. EV203Ending Sequence No. EV203Ev203

Question No.: SIERRA 1-8

Part No.:

Addendum:

Question:

Please provide the following for Entergy Texas, with supporting workpapers (in electronic, machine-readable format):

- a. Annual peak load since 2015 (or earliest available).
- b. Annual MISO capacity reserve requirement since 2015 (or earliest available).
- c. Annual sales since 2015 (or earliest available).
- d. Annual generation since 2015 (or earliest available).
- e. Annual off-system energy sales in GWhs since 2015 (or earliest available).
- f. Annual off-system energy sales revenues in dollars since 2015 (or earliest available).
- g. Annual off-system energy purchases in GWhs since 2015 (or earliest available).
- h. Annual off-system energy purchases revenues in dollars since 2015 (or earliest available).

Response:

Response of: Entergy Texas, Inc.Prepared By: N/Ato the First Set of Data RequestsSponsoring Witness: N/Aof Requesting Party: Sierra ClubBeginning Sequence No. EV204Ending Sequence No. EV204

Question No.: SIERRA 1-9

Part No.:

Addendum:

Question:

For RS. Nelson Unit 6 and Big Cajun II Unit 3, please provide the following:

- a. Historical capital expenditures since 2010.
- b. Projected capital expenditures through 2030.
- c. Provide a specific accounting of all projects and capital expenditures already scheduled or planned at each unit over the next ten years.
- d. For each capital expenditure involving more than \$1 million, please provide all analyses of the present value of those investments versus retirement or replacement. If the Company did not perform any such analysis, why not?

Response:

Response of: Entergy Texas, Inc. to the First Set of Data Requests of Requesting Party: Sierra Club

Prepared By: N/A Sponsoring Witness: N/A Beginning Sequence No. EV205 Ending Sequence No. EV205

Question No.: SIERRA 1-10

Part No.:

Addendum:

Question:

Provide company plant in service amounts from 2015 through the present for RS. Nelson and Big Cajun II Unit 3, respectively, for each month. For each month, include plant balance as of the first day of the month, addition, transfers, retirements, and plant balance at the end of the month.

Response:

Response of: Entergy Texas, Inc. to the First Set of Data Requests of Requesting Party: Sierra Club	Prepared By: N/A Sponsoring Witness: N/A Beginning Sequence No. EV206 Ending Sequence No. EV206

Question No.: SIERRA 1-11

Part No.:

Addendum:

Question:

Provide the Company's three most-recent commodity and power market price forecasts. Indicate the date of each forecast.

Response:

Response of: Entergy Texas, Inc. to the First Set of Data Requests of Requesting Party: Sierra Club Prepared By: N/A Sponsoring Witness: N/A Beginning Sequence No. EV207 Ending Sequence No. EV207

Question No.: SIERRA 1-12

Part No.:

Addendum:

Question:

Provide total energy and ancillary service market revenues for RS. Nelson and Big Cajun II Unit 3, respectively, for the period 2015-2020. State whether the values represent Entergy Texas's share or total unit.

Response:

Response of: Entergy Texas, Inc. to the First Set of Data Requests of Requesting Party: Sierra Club Prepared By: N/A Sponsoring Witness: N/A Beginning Sequence No. EV208 Ending Sequence No. EV208

Question No.: SIERRA 1-13

Part No.:

Addendum:

Question:

Provide total projected energy and ancillary service market revenues for RS. Nelson and Big Cajun II Unit 3, respectively, for the period 2021-2030. State whether the values represent Entergy Texas's share or total unit.

Response: