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Assurance

10 CFR 50.75(f)(1)

CNRO2021-00005

March 25, 2021

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Subject: Decommissioning Funding Status Report per 10 CFR §50.75(f)(1) –  
Entergy Operations, Inc.

Arkansas Nuclear One, Units 1 and 2  
NRC Docket Nos. 50-313 and 50-368  
Renewed Facility Operating License  
Nos. DPR-51 and NPF-6

Grand Gulf Nuclear Station, Unit 1  
NRC Docket No. 50-416  
Renewed Facility Operating License  
No. NPF-29

Waterford Steam Electric Station, Unit 3  
NRC Docket No. 50-382  
Renewed Facility Operating License  
No. NPF-38

River Bend Station, Unit 1  
NRC Docket No. 50-458  
Renewed Facility Operating License  
No. NPF-47

- References:
- 1) NUREG-1307, "Report on Waste Burial Charges," Revision 18, dated January 2021.
  - 2) NRC Regulatory Issue Summary 2001-07, "10 CFR 50.75(f)(1) Reports on the Status of Decommissioning Funds (Due March 31, 2001)."

10 CFR 50.75(f)(1) requires each power reactor licensee to report to the NRC by March 31, 1999, and every two years thereafter, on the status of its decommissioning funding for each reactor, or share of a reactor, that it owns. On behalf of Entergy Arkansas, LLC for Arkansas Nuclear One (ANO), System Entergy Resources, Inc. (SERI) and Cooperative Energy (formerly South Mississippi Electric Power Association (SMEPA)) for Grand Gulf Nuclear Station (GGNS), Entergy Louisiana, LLC for River Bend Station (RBS) and Waterford 3 Steam Electric Station (WF3), Entergy Operations, Inc. hereby submits the information requested for power reactors operated by Entergy Operations, Inc.

The estimated minimum decommissioning fund values were determined using the NRC's methodology in NUREG-1307, Rev 18.

The 70 percent regulated interest of RBS contains funds accumulated for separate rate regulatory jurisdictions. There are not separate trust funds for the individual jurisdictions responsible for decommissioning of the 70 percent regulated share of RBS. Balances in the nuclear decommissioning trust for the 70 percent regulated share of RBS attributable to the separate jurisdictions are accounted for by the Trustee, The Bank of New York Mellon. The following information provides the balances in the 70 percent regulated share trust attributable to each of the relevant jurisdictions as of December 31, 2020:

Louisiana	\$257,076,327
Texas	\$292,221,342
FERC	\$ 15,727,501

The trust fund amounts reported for each facility in the responses to item 3 in the attachments represent the market value of decommissioning trust funds as of December 31, 2020 net of any material current income tax liability on realized gains, interest, dividends and other income of the trusts. Cooperative Energy is a not-for-profit electric cooperative, and is exempt from federal income tax. Accordingly, the amounts reported as of December 31, 2020 of funds separately accumulated by Cooperative Energy for GGNS decommissioning were after-tax amounts. The trusts for the following plants had balances on their 2020 tax liabilities (in thousands), not reflected in the trust fund balances, as follows (does not include Cooperative Energy):

ANO	\$	0
GGNS	\$	0
RBS	\$	0
WF3	\$	0

In accordance with guidance provided by the NRC Staff in April 2014 requests for additional information (Accession No. ML14120A273) that “[f]uture 10 CFR 50.75(f) reports should clearly delineate estimated reactor and ISFSI decommissioning costs,” the information in Attachments 1-4 includes line item 2 identifying the ISFSI decommissioning obligation, from the most recent 10 CFR 72.30 filing. This obligation is also accounted for in the Excess/Shortfall calculations for each plant in Attachment 5.

The information provided in Attachments 1-4 is based on NRC Regulatory Issue Summary 2001-07. Consistent with your letter dated March 11, 2011 (Accession No. ML110280410), we are providing with this submittal or incorporating by reference certain agreements providing for original (not resale) nuclear plant power sales (that may, from time to time, include decommissioning collections) between Entergy operating companies that invoke Federal Energy Regulatory Commission (FERC) tariffs. Considering these agreements and the applicable NRC regulations, Entergy respectfully asserts that these rate-making tariffs should not be viewed as “contractual obligations” as that term is used within 10 CFR 50.75(e)(1)(v). These arrangements describe exchanges among regulated utilities that operate within the confines of a FERC-approved tariff, under the ratemaking jurisdiction of the FERC. As such, the various agreements are simply extensions of the FERC tariff and not the type of “contractual obligations” contemplated by 10 CFR 50.75(e)(1)(v), and Entergy’s decommissioning funding is still provided by the external sinking fund method in accordance with 10 CFR 50.75(e)(1)(ii). In an abundance of caution and in a spirit of cooperation, however, Entergy is providing or incorporating various tariff agreements for each affected plant.

Additionally, Attachment 5 includes Minimum Funding Assurance calculation worksheets (not required for this filing) derived from Datasheet 4 of LIC-205 Revision 6 for the plants, provided for the convenience of the reviewer.

The aforementioned worksheets, using the December 31, 2020 trust fund balances, indicate that all of the plants covered by this submittal met or exceeded the NRC's funding requirements.

This submittal contains no new regulatory commitments. Should you have any questions or require additional information, please contact me at 601-368-5102.

Respectfully,



Phil Couture

PC/LJS/chm

Attachments:

1. Entergy Arkansas, LLC – ANO 1 & 2 Status Reports
  - 1-A Entergy Arkansas, LLC – Calculation of Minimum Amount
2. SERI & Cooperative Energy - GGNS Status Report
  - 2-A SERI & Cooperative Energy – Calculation of Minimum Amount
3. Entergy Louisiana, LLC RBS Status Report – 70% Regulated
  - 3-A Entergy Louisiana, LLC – Calculation of Minimum Amount
  - 3-B Schedule of Remaining Principal Payments – RBS
  - 3-C Entergy Louisiana, LLC RBS Status Report – 30% Non-Regulated
4. Entergy Louisiana, LLC – Waterford 3 Status Report
  - 4-A Entergy Louisiana, LLC - Calculation of Minimum Amount
  - 4-B Schedule of Remaining Principal Payments – Waterford 3
  - 4-C Waterford 3 Purchase Power Agreement
5. Minimum Funding Assurance Calculation Worksheets

cc: NRC Region IV Regional Administrator

NRC Senior Resident Inspector – ANO  
NRC Senior Resident Inspector – GGN  
NRC Senior Resident Inspector – RBS  
NRC Senior Resident Inspector – WF3

NRC Project Manager ANO  
NRC Project Manager GGN  
NRC Project Manager RBS  
NRC Project Manager WF3

Arkansas Department of Health  
Mississippi Department of Health  
Louisiana Department of Environmental Quality

**Attachment 1**

**CNRO2021-00005**

**Entergy Arkansas, LLC – ANO 1 & 2 Status Reports**

**ENTERGY ARKANSAS, LLC**  
**Status Report of Decommissioning Funding**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

Plant Name: **Arkansas Nuclear One Unit 1 (ANO 1)**

- |  |  |
|--|--|
| 1. Minimum Financial Assurance (MFA)<br>Estimated per 10 CFR 50.75(b) and (c) (2020\$):  | \$478.3 million <sup>1</sup>                               |
| 2. ISFSI Obligation as of 12/31/20   | \$7.8 million <sup>2</sup>                                 |
| 3. Decommissioning Trust Fund Total<br>As of 12/31/20:   | \$702.4 million  |
| 4. Annual amounts remaining to be collected:   | \$0 <sup>3</sup>   |
| 5. Assumptions used in determining rates of escalation<br>in decommissioning costs, rates of earnings on<br>decommissioning funds, and rates of other factors<br>used in funding projections | 2% annual real rate of return per<br>10 CFR 50.75(e)(1)(i) |
| 6. Contracts upon which licensee is relying<br>For Decommissioning Funding:  | See Footnote <sup>4</sup>                                  |
| 7. Modifications to Method of Financial<br>Assurance since Last Report:  | None   |
| 8. Material Changes to Trust Agreements:   | None   |

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<sup>1</sup> See Attachment 1-A

<sup>2</sup> From Entergy's ISFSI Decommissioning Funding Plans Pursuant to 10 CFR 72.30, December 17, 2018 (Accession No. ML18351A491), escalated at 3% per annum to account for inflation. The ISFSI obligation is shared equally between ANO 1 and ANO 2.

<sup>3</sup> Decommissioning funding has been suspended by the Arkansas Public Service Commission in Docket No. 87-166-TF. The NRC has granted license renewal to May 20, 2034.

<sup>4</sup> See the agreements provided as Attachment 1-C in the decommissioning financial assurance filing dated March 28, 2019, NRC Accession No. ML19087A327, incorporated herein by reference. The licensee believes these contracts do not qualify as contractual obligations, but rather are simply cost of service recovery mechanisms as defined in 10 CFR §50.75(e)(1)(ii)(A). Out of an abundance of caution, the licensee identifies this information here. By FERC Order dated March 21, 2019, these agreements were modified to substitute Entergy Arkansas, LLC for Entergy Arkansas, Inc. The amended agreements were accepted by FERC in a letter order dated March 21, 2019.

**ENTERGY ARKANSAS, LLC**  
**Status Report of Decommissioning Funding**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

Plant Name: **Arkansas Nuclear One Unit 2 (ANO 2)**

- |   |  |
|---|--|
| 1. Minimum Financial Assurance (MFA)<br>Estimated per 10 CFR 50.75(b) and (c) (2020\$):   | \$498 million <sup>5</sup>                                 |
| 2. ISFSI Obligation as of 12/31/20  | \$7.8 million <sup>6</sup>                                 |
| 3. Decommissioning Fund Total<br>As of 12/31/20:  | \$571.6 million  |
| 4. Annual amounts remaining to be collected:  | \$0 <sup>7</sup>   |
| 5. Assumptions used in determining rates of escalation in<br>decommissioning costs, rates of earnings on<br>decommissioning funds, and rates of other factors<br>used in funding projections: | 2% annual real rate of return per<br>10 CFR 50.75(e)(1)(i) |
| 6. Contracts upon which licensee is relying<br>For Decommissioning Funding:   | See Footnote <sup>8</sup>                                  |
| 7. Modifications to Method of Financial<br>Assurance since Last Report:   | None   |
| 8. Material Changes to Trust Agreements:  | None   |

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<sup>5</sup> See Attachment 1-A

<sup>6</sup> From Entergy's ISFSI Decommissioning Funding Plans Pursuant to 10 CFR 72.30, December 17, 2018 (Accession No. ML18351A491), escalated at 3% per annum to account for inflation. The ISFSI obligation is shared equally between ANO 1 and ANO 2.

<sup>7</sup> Decommissioning funding has been suspended by the Arkansas Public Service Commission in Docket No. 87-166-TF. The NRC has granted license renewal to July 17, 2038.

<sup>8</sup> See the agreements provided as Attachment 1-C in the decommissioning financial assurance filing dated March 28, 2019, NRC Accession No. ML19087A327, incorporated herein by reference. The licensee believes these contracts do not qualify as contractual obligations, but rather are simply cost of service recovery mechanisms as defined in 10 CFR §50.75(e)(1)(ii)(A). Out of an abundance of caution, the licensee identifies this information here. By FERC Order dated March 21, 2019, these agreements were modified to substitute Entergy Arkansas, LLC for Entergy Arkansas, Inc. The amended agreements were accepted by FERC in a letter order dated March 21, 2019.

**Attachment 1-A**

**CNRO2021-00005**

**Entergy Arkansas, LLC – Calculation of Minimum Amount**



**ENTERGY ARKANSAS, LLC**  
**Calculation for Minimum Amount - ANO**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

<b>Entergy Arkansas, Inc.:</b>	100% ownership interest
<b>Plant Location:</b>	Russellville, Arkansas
<b>Reactor Type:</b>	Pressurized Water Reactor ("PWR")
<b>ANO Unit 1 Power Level:</b>	<3,400 MWt (2,568 MWt)
<b>ANO Unit 1 PWR Base Year 1986\$:</b>	\$97,598,400
<b>ANO Unit 2 Power Level:</b>	<3,400 MWt (3,026 MWt)
<b>ANO Unit 2 PWR Base Year 1986\$:</b>	\$101,628,800
<b>Labor Region:</b>	South
<b>Waste Burial Facility:</b>	Generic Disposal Site

**10 CFR 50.75(c)(2) Escalation Factor Formula:**

$$0.65(L) + 0.13(E) + 0.22(B)$$

	<u>Factor</u>
L=Labor (South)	2.76 <sup>9</sup>
E=Energy (PWR)	2.26 <sup>10</sup>
B=Waste Burial-Vendor (PWR)	12.793 <sup>11</sup>

**PWR Escalation Factor:**

$$0.65(L) + 0.13(E) + 0.22(B) = 4.900586$$

**1986 PWR Base Year \$ Escalated:**

$$\text{ANO1: } \$97,598,400 * \text{Factor} = \underline{\$478,289,367}$$

$$\text{ANO2: } \$101,628,800 * \text{Factor} = \underline{\$498,040,690}$$

<sup>9</sup> Bureau of Labor Statistics, Series Report ID: CIU2010000000220i (4<sup>th</sup> Quarter 2020)

<sup>10</sup> Bureau of Labor Statistics, Series Report ID: wpu0543 and wpu0573 (December 2020)

<sup>11</sup> Nuclear Regulatory Commission: NUREG-1307 Revision 18, Table 2.1 (2021)

**Attachment 2**

**CNRO2021-00005**

**SERI & Cooperative Energy - GGNS Status Report**

**SYSTEM ENERGY RESOURCES, INC. and COOPERATIVE ENERGY**  
**Status Report of Decommissioning Funding**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

Plant Name: **Grand Gulf Station (Owned & leased 90% by System Energy Resources, Inc. (SERI) and 10% by Cooperative Energy)**

1. Minimum Financial Assurance (MFA)  
Estimated per 10 CFR 50.75(b) and (c) (2020\$):  
SERI (90% ownership share) \$596.9 million<sup>12</sup>  
Cooperative Energy (10% ownership share) \$66.3 million
2. ISFSI Obligation as of 12/31/20<sup>13</sup>  
SERI \$12.2 million  
Cooperative Energy \$1.35 million
3. Decommissioning Fund Total as of 12/31/20:  
SERI \$1,215.9 million  
Cooperative Energy \$102.4 million
4. Annual amounts remaining to be collected: None
5. Assumptions used:  
Rate of Escalation of Decommissioning Costs:  
SERI See item below  
Cooperative Energy 3.0%  
  
Rate of Earnings on Decommissioning Funds:  
SERI 2% real rate of return  
per 10 CFR 50.75(e)(1)(i)  
Approx. 2.91%<sup>14</sup>  
  
Cooperative Energy  
  
Authority for use of Real Earnings Over 2%:  
SERI N/A  
Cooperative Energy Cooperative Energy Board
6. Contracts upon which licensee is relying  
For Decommissioning Funding: See footnote<sup>15</sup>
7. Modifications to Method of Financial  
Assurance since Last Report: None
8. Material Changes to Trust Agreements:  
SERI None  
Cooperative Energy None

<sup>12</sup> See Attachment 2-A

<sup>13</sup> From Entergy's ISFSI Decommissioning Funding Plans Pursuant to 10 CFR 72.30, December 17, 2018 (Accession No. ML18351A491), escalated at 3% per annum to account for inflation.

<sup>14</sup> Established by Cooperative Energy board resolution. A copy of that resolution was previously provided in the licensee's March 27, 2015 decommissioning financial assurance filing as Attachment 2-C, Accession No. ML5092A183, and is incorporated herein by reference.

<sup>15</sup> See the Unit Power Sales Agreement and the Availability Agreement, FERC tariffs, previously provided in the licensee's March 27, 2015 decommissioning financial assurance filing as Attachment 2-D, Accession No. ML15092A183, incorporated herein by reference. By FERC Order dated March 21, 2019, these agreements were modified to substitute Entergy Arkansas, LLC for Entergy Arkansas, Inc. The amended agreements were accepted by FERC in a letter order dated March 21, 2019. It is the licensee's position that these agreements are not 10 CFR §50.75(e)(1)(v) "contractual obligations," but rather cost of service tariffs which may appropriately be used to fund the external sinking fund in accordance with 10 CFR §50.75(e)(1)(ii). Out of abundance of caution, the licensee identifies this information here.

**Attachment 2-A**

**CNRO2021-00005**

**SERI & Cooperative Energy – Calculation of Minimum Amount**

**SYSTEM ENERGY RESOURCES, INC. and COOPERATIVE ENERGY**  
**Calculation for Minimum Amount**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

<b>System Energy Resources, Inc.:</b>	90% ownership/leasehold interest
<b>Cooperative Energy:</b>	10% ownership interest
<b>Plant Location:</b>	Port Gibson, Mississippi
<b>Reactor Type:</b>	Boiling Water Reactor ("BWR")
<b>Power Level:</b>	>3,400 MWt
<b>BWR Base Year 1986\$:</b>	\$135,000,000
<b>Labor Region:</b>	South
<b>Waste Burial Facility:</b>	Generic Disposal Site

**10 CFR 50.75(c)(2) Escalation Factor Formula:**

$$0.65(L) + 0.13(E) + 0.22(B)$$

L=Labor (South)

E=Energy (BWR)

B=Waste Burial-Vendor (BWR)

Factor2.76<sup>16</sup>2.28<sup>17</sup>12.837<sup>18</sup>**BWR Escalation Factor:**

$$0.65(L) + 0.13(E) + 0.22(B) =$$

4.91297

**1986 BWR Base Year \$ Escalated:**

$$\$135,000,000 * \text{Factor} =$$

\$663,251,591

**System Energy interest (90%):**

\$596,926,432

**Cooperative Energy interest (10%):**\$ 66,325,159**Total**\$663,251,591

<sup>16</sup> Bureau of Labor Statistics, Series Report ID: CIU2010000000220i (4<sup>th</sup> Quarter 2020)

<sup>17</sup> Bureau of Labor Statistics, Series Report ID: wpu0543 and wpu0573 (December 2020)

<sup>18</sup> Nuclear Regulatory Commission: NUREG-1307 Revision 18, Table 2.1 (2021)

**Attachment 3**

**CNRO2021-00005**

**Entergy Louisiana, LLC RBS Status Report – 70% Regulated**

**ENTERGY LOUISIANA, LLC.**  
**Status Report of Decommissioning Funding**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

Plant Name: **River Bend Station (70% Regulated Interest)**

- |   |   |
|---|---|
| 1. Minimum Financial Assurance (MFA)  |   |
| Estimated per 10 CFR 50.75(b) and (c) (2020\$):                             | \$453.3 million <sup>19</sup>                       |
| 2. ISFSI Obligation as of 12/31/20  | \$7.75 million <sup>20</sup>                        |
| 3. Decommissioning Fund Total   |   |
| As of 12/31/20:   | \$565 million                                       |
| 4. Annual amounts remaining to be collected:                                | See Attachment 3-B                                  |
| 5. Assumptions used:  |   |
| Rate of Escalation of Decommissioning Costs:                                | See item below                                      |
| Rate of Earnings on Decommissioning Funds:                                  | 2% real rate of return<br>per 10 CFR 50.75(e)(1)(i) |
| Authority for use of Real Earnings Over 2%:                                 | N/A   |
| 6. Contracts upon which licensee is relying<br>For Decommissioning Funding: | See footnote <sup>21</sup>                          |
| 7. Modifications to Method of Financial<br>Assurance since Last Report:     | None  |
| 8. Material Changes to Trust Agreements:                                    | None  |

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<sup>19</sup> See Attachment 3-A.

<sup>20</sup> From Entergy's ISFSI Decommissioning Funding Plans Pursuant to 10 CFR 72.30, December 17, 2018 (Accession No. ML18351A491), 70% of River Bend value, escalated at 3% per annum to account for inflation.

<sup>21</sup> See the unit power purchase agreement under a FERC tariff for the Texas-jurisdictional share of the River Bend 70% share provided as Attachment 3-D in the decommissioning financial assurance filing dated March 28, 2019, NRC Accession No. ML19087A327, incorporated herein by reference. The licensee believes this contract does not qualify as a contractual obligation, but rather is simply a cost of service recovery mechanism as defined in 10 CFR §50.75(e)(1)(ii)(A). Out of an abundance of caution, the licensee identifies this information here.

**Attachment 3-A**

**CNRO2021-00005**

**Entergy Louisiana, LLC – Calculation of Minimum Amount**



**ENTERGY LOUISIANA, LLC.**  
**Calculation for Minimum Amount**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

<b>Entergy Louisiana, LLC:</b>	Factors below used for all of ownership interests
<b>Plant Location:</b>	West Feliciana Parish, Louisiana
<b>Reactor Type:</b>	Boiling Water Reactor ("BWR")
<b>Power Level:</b>	<3,400 MWt (3,091MWt)
<b>BWR Base Year 1986\$:</b>	\$131,819,000
<b>Labor Region:</b>	South
<b>Waste Burial Facility:</b>	Generic Disposal Site

**10 CFR 50.75(c)(2) Escalation Factor Formula:**  
**0.65(L) +0.13(E) +0.22(B)**

	<u>Factor</u>
L=Labor (South)	2.76 <sup>22</sup>
E=Energy (BWR)	2.28 <sup>23</sup>
B=Waste Burial-Vendor (BWR)	12.837 <sup>24</sup>

**BWR Escalation Factor:**  
0.65(L) +0.13(E) +0.22(B)= 4.91297

**1986 BWR Base Year \$ Escalated:**  
\$131,819,000 \* Factor= \$647,623,418

<b>River Bend 70% Regulated Interest:</b>	\$453,336,393
<b>River Bend 30% Non-Regulated Interest:</b>	<u>\$194,287,025</u>
<b>Total</b>	<u><u>\$647,623,418</u></u>

<sup>22</sup> Bureau of Labor Statistics, Series Report ID: CIU2010000000220i (4<sup>th</sup> Quarter 2020)

<sup>23</sup> Bureau of Labor Statistics, Series Report ID: wpu0543 and wpu0573 (December 2020)

<sup>24</sup> Nuclear Regulatory Commission: NUREG-1307 Revision 18, Table 2.1 (2021)

**Attachment 3-B**

**CNRO2021-00005**

**Schedule of Remaining Principal Payments – RBS**

**ENTERGY LOUISIANA, LLC.**  
**Schedule of Remaining Principal Payments into RBS (70%) Decommissioning Fund**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

<b>Year</b>	<b>LPSC</b>	<b>PUCT</b>	<b>FERC</b>	<b>Total</b>
2021	\$24,915	\$ 0	\$ 113	\$25,028
2022	\$10,195	\$ 0	\$ 113	\$10,308
2023	\$10,195	\$ 0	\$ 113	\$10,308
2024	\$10,195	\$ 0	\$ 113	\$10,308
2025	\$11,693	\$ 0	\$ 113	\$11,806
2026	\$11,693	\$ 0	\$ 113	\$11,806
2027	\$11,693	\$ 0	\$ 113	\$11,806
2028	\$11,693	\$ 0	\$ 113	\$11,806
2029	\$11,693	\$ 0	\$ 113	\$11,806
2030	\$13,513	\$ 0	\$ 113	\$13,626

Note: Reported in \$1,000s. Approved in LPSC Docket No.U-31237 and U-35581; FERC Order in Docket Nos. ER86-558-002. Copies of those orders were previously provided in the licensee's March 27, 2015 decommissioning financial assurance filing as Attachments 3-D, and 3-F, respectively, Accession No. ML15092A183, and are incorporated herein by reference. River Bend 70% decommissioning collections were set to zero in PUCT Docket No. 48371 (concluded in December 2019).

**Attachment 3-C**

**CNRO2021-00005**

**Entergy Louisiana, LLC RBS Status Report – 30% Non-Regulated**

**ENTERGY LOUISIANA, LLC.**  
**Status Report of Decommissioning Funding**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

Plant Name: **River Bend Station (30% Non-Regulated Interest)**

- |   |   |
|---|---|
| 1. Minimum Financial Assurance (MFA)  |   |
| Estimated per 10 CFR 50.75(b) and (c) (2020\$):                             | \$194.3 million <sup>25</sup>                       |
| 2. ISFSI Obligation as of 12/31/20  | \$3.32 million <sup>26</sup>                        |
| 3. Decommissioning Fund Total   |   |
| As of 12/31/20:   | \$547.2 million                                     |
| 4. Annual amounts remaining to be collected:                                | None  |
| 5. Assumptions used:  |   |
| Rate of Escalation of Decommissioning Costs:                                | See next item                                       |
| Rate of Earnings on Decommissioning Funds:                                  | 2% real rate of return<br>per 10 CFR 50.75(e)(1)(i) |
| Authority for use of Real Earnings Over 2%:                                 | N/A   |
| 6. Contracts upon which licensee is relying<br>For Decommissioning Funding: | None <sup>27</sup>                                  |
| 7. Modifications to Method of Financial<br>Assurance since Last Report:     | None  |
| 8. Material Changes to Trust Agreements:                                    | None  |

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<sup>25</sup> See Attachment 3-A.

<sup>26</sup> From Entergy's ISFSI Decommissioning Funding Plans Pursuant to 10 CFR 72.30, December 17, 2018 (Accession No. ML18351A491), 30% of River Bend value, escalated at 3% per annum to account for inflation.

<sup>27</sup> The River Bend 30% share is sold under contract, but since the 30% share is fully funded with a pre-paid decommissioning fund, the licensee does not rely on this contract for decommissioning. See the agreement provided as Attachment 3-E in the decommissioning financial assurance filing dated March 28, 2019, NRC Accession No. ML19087A327, incorporated herein by reference.

**Attachment 4**

**CNRO2021-00005**

**Entergy Louisiana, LLC – Waterford 3 Status Report**

**ENTERGY LOUISIANA, LLC.**  
**Status Report of Decommissioning Funding**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

Plant Name: **Waterford 3 Steam Electric Station**

- |   |   |
|---|---|
| 1. Minimum Financial Assurance (MFA)<br>Estimated per 10 CFR 50.75(b) and (c) (2020\$): | \$514.6 million <sup>28</sup>                       |
| 2. ISFSI Obligation as of 12/31/20  | \$9.59 million <sup>29</sup>                        |
| 3. Decommissioning Fund Total<br>As of 12/31/20:  | \$681.8 million                                     |
| 4. Annual amounts remaining to be collected:  | See Attachment 4-B                                  |
| 5. Assumptions used:  |   |
| Rate of Escalation of Decommissioning Costs:  | See item below                                      |
| Rate of Earnings on Decommissioning Funds:  | 2% real rate of return<br>per 10 CFR 50.75(e)(1)(i) |
| Authority for use of Real Earnings Over 2%:   | N/A   |
| 6. Contracts upon which licensee is relying<br>For Decommissioning Funding:             | See Footnote <sup>30</sup>                          |
| 7. Modifications to Method of Financial<br>Assurance since Last Report:                 | None  |
| 8. Material Changes to Trust Agreements:  | None  |

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<sup>28</sup> See Attachment 4-A.

<sup>29</sup> From Entergy's ISFSI Decommissioning Funding Plans Pursuant to 10 CFR 72.30, December 17, 2018 (Accession No. ML18351A491), escalated at 3% per annum to account for inflation.

<sup>30</sup> See attachment 4-C for a unit power purchase agreement under FERC tariffs for Waterford 3. The licensee believes this contract does not qualify as a contractual obligation, but rather is simply a cost of service recovery mechanism as defined in 10 CFR §50.75(e)(1)(ii)(A). Out of an abundance of caution, the licensee identifies this information here.

**Attachment 4-A**

**CNRO2021-00005**

**Entergy Louisiana, LLC - Calculation of Minimum Amount**



**ENTERGY LOUISIANA, LLC.**  
**Calculation for Minimum Amount**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

<b>Entergy Louisiana, LLC:</b>	100% ownership interest
<b>Plant Location:</b>	Taft, Louisiana
<b>Reactor Type:</b>	Pressurized Water Reactor ("PWR")
<b>Power Level:</b>	>3,400 MWt
<b>PWR Base Year 1986\$:</b>	\$105,000,000
<b>Labor Region:</b>	South
<b>Waste Burial Facility:</b>	Generic Disposal Site

**10 CFR 50.75(c)(2) Escalation Factor Formula:**  
**0.65(L) +0.13(E) +0.22(B)**

	<u>Factor</u>
L=Labor (South)	2.76 <sup>31</sup>
E=Energy (PWR)	2.26 <sup>32</sup>
B=Waste Burial-Vendor (PWR)	12.793 <sup>33</sup>

**PWR Escalation Factor:**  
0.65(L) +0.13(E) +0.22(B)= 4.90059

**1986 PWR Base Year \$ Escalated:**  
\$105,000,000 \* Factor= \$514,561,546

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<sup>31</sup> Bureau of Labor Statistics, Series Report ID: CIU2010000000220i (4<sup>th</sup> Quarter 2020)  
<sup>32</sup> Bureau of Labor Statistics, Series Report ID: wpu0543 and wpu0573 (December 2020)  
<sup>33</sup> Nuclear Regulatory Commission: NUREG-1307 Revision 18, Table 2.1 (2021)

**Attachment 4-B**

**CNRO2021-00005**

**Schedule of Remaining Principal Payments – Waterford 3**

**ENTERGY LOUISIANA, LLC.**  
**Schedule of Remaining Principal Payments into WF3 Decommissioning Fund**  
**For Year Ending December 31, 2020 - 10 CFR 50.75(f)(1)**

<b>Year</b>	<b>LPSC</b>	<b>City of New Orleans</b>	<b>Total</b>
2021	\$18,538	\$151	\$18,689
2022	\$7,580	\$151	\$7,731
2023	\$7,580	\$151	\$7,731
2024	\$7,580	\$151	\$7,731
2025	\$8,867	\$0	\$8,867
2026	\$8,867	\$0	\$8,867
2027	\$8,867	\$0	\$8,867
2028	\$8,867	\$0	\$8,867
2029	\$8,867	\$0	\$8,867
2030	\$10,246	\$0	\$10,246

Note: Reported in \$1,000s. Approved in LPSC Docket No. U-31237 and U-35581, CNO Resolution R-95-1081 in Docket UD-95-1, and CNO Resolution R-14-494 in Docket UD-13-01. Copies of those orders were previously provided in the licensee's March 27, 2015 decommissioning financial assurance filing as Attachments 4-C, 4-D, and 4-E, respectively, Accession No. ML15092A183, and are incorporated herein by reference.

**Attachment 4-C**

**CNRO2021-00005**

**Waterford 3 Purchase Power Agreement**

(8 pages to follow)

### **AGREEMENT**

This Agreement is effective as of February 1, 2021, between Entergy Louisiana, LLC (“ELL” or “Seller”) and Entergy New Orleans, LLC (“ENO” or “Buyer,” and together with the Seller, the “Parties”).

WHEREAS, the former Entergy Louisiana, LLC (“Legacy ELL”) transferred to the former Entergy New Orleans, Inc. (“Legacy ENO”) certain Legacy ELL assets (and related liabilities) that are necessary to provide electric service to customers in the Fifteenth Ward of the City of New Orleans, commonly referred to as Algiers (the “Algiers Transaction”); and

WHEREAS, as part of the Algiers Transaction, Legacy ELL agreed to make a unit power sale from the designated generating units and designated power purchase agreements set forth on Attachment A (respectively, “Designated Generating Units” and “Designated Power Purchases”) to Legacy ENO; and

WHEREAS, the Agreement among Entergy Arkansas, Inc., Legacy ELL, Legacy ENO, Entergy Mississippi, Inc. and Entergy Services, Inc. (hereinafter referred to as the “System Agreement”), was filed with FERC on April 30, 1982, and became effective on January 1, 1983, and was amended in 1993 to incorporate Entergy Gulf States, Inc., and its successors Entergy Gulf States Louisiana, L.L.C. (“EGSL” or “Legacy EGSL”) and Entergy Texas, Inc., in 2008; and

WHEREAS, on October 1, 2015, Legacy EGSL and Legacy ELL completed a transaction in which those entities combined substantially all of their respective assets and liabilities into a single successor public utility operating company now known as ELL; and

WHEREAS, on October 1, 2015, ELL succeeded to the tariffs and rate schedules of Legacy EGSL and Legacy ELL; and

WHEREAS, pursuant to a Settlement Agreement approved by FERC in Docket Nos. ER14-75, et al., on December 29, 2015, the System Agreement terminated effective August 31, 2016 at 11:59:59 Central Daylight Time; and

WHEREAS, the Parties previously executed this Agreement to provide for a unit power purchase by Buyer under System Agreement Service Schedule MSS-4 from the Designated Generating Units and Designated Power Purchases; and

WHEREAS, the Entergy Operating Committee previously considered and approved the terms of this Agreement; and

WHEREAS, upon termination of the System Agreement, the Parties intended to apply the terms and conditions of the Unit Power Sales and Designated Power Purchases Tariff accepted by FERC in Docket No. ER13-1508 ("Sales and Purchases Tariff"), which was designed to replicate System Agreement Service Schedule MSS-4 as the umbrella tariff for this Agreement; and

WHEREAS, on November 30, 2017, Legacy ENO completed an internal restructuring transaction in which substantially all of Legacy ENO's assets and liabilities were succeeded to by a newly-formed successor public utility operating company now known as ENO; and

WHEREAS, on November 30, 2017, ENO succeeded to the tariffs and rate schedules of Legacy ENO;

THEREFORE, the Parties agree as follows:

1. Designated Generating Units. Subject to the other terms of this Agreement, Seller agrees to sell and Buyer agrees to purchase that quantity of generating capacity and associated energy from the Designated Generating Units on a life-of-unit basis under the Sales and Purchases Tariff, as described herein, equivalent to the Buyer's Allocated Percentage of Seller's

Unit Capacity of the Designated Generating Units, all as set forth on Attachment A. Buyer's Allocated Percentage will remain fixed as specified on Attachment A for the entire term of this Agreement.

2. Designated Power Purchases. Subject to the other terms of this Agreement, Seller agrees to sell and Buyer agrees to purchase that quantity of capacity and associated energy from the Designated Power Purchases on a term-of-PPA basis under the Sales and Purchases Tariff, as described herein, equivalent to the Buyer's Allocated Percentage of Seller's Unit Capacity of the Designated Power Purchases, all as set forth on Attachment A. Buyer's Allocated Percentage will remain fixed as specified on Attachment A for the entire term of this Agreement.

3. Designated Generating Units and Designated Power Purchases. The designated generating units and designated power purchases for purposes of this unit power purchase under the Sales and Purchases Tariff shall be the units set forth on Attachment A.

4. Pricing. The pricing of the capacity and energy to be sold and purchased pursuant to paragraphs 1 and 2 above shall be as specified in the Sales and Purchases Tariff. Should the trust funds set aside for Buyer's share of the responsibility for Waterford Unit 3 decommissioning be found to be insufficient to cover the aforesaid Buyer's share of the cost for such decommissioning, Buyer will promptly pay to Seller such deficit. The Buyer will fully pay for the Buyer's share of the decommissioning responsibility for Waterford Unit 3 notwithstanding the operational status of Waterford Unit 3 or any force majeure provisions. All proceeds from decommissioning collections under the Sales and Purchases Tariff pursuant to this Agreement will be deposited to the external sinking fund(s) that collect(s) Buyer's decommissioning funding.

5. Energy Entitlement. Buyer is entitled to receive on an hourly basis Buyer's Allocated Percentage (set forth in Attachment A) of the energy generated by the Designated Generating Units and the Designated Power Purchases.

6. Term. The term of this Agreement shall be the operating life of the Designated Generating Units and the contractual end dates of the Designated Power Purchases, plus any time required to decommission the Designated Generating Units.

7. Termination. Neither party shall have the right to terminate the unit power purchase and sale required by this Agreement without the express written consent of the other party.

8. Condition Precedent. This contract shall be conditioned upon Buyer and Seller receiving all regulatory approvals required for this Agreement.

9. Notices. Unless specifically stated otherwise herein, any notice to be given hereunder shall be sent by Registered Mail, postage prepaid, to the party to be notified at the address set forth below, and shall be deemed given when so mailed.

To ELL:       Entergy Louisiana, LLC  
4809 Jefferson Highway  
Jefferson, LA 70121  
ATTN: Chief Executive Officer

To ENO:       Entergy New Orleans, LLC  
1600 Perdido Street, Bldg. No. 505  
New Orleans, LA 70112  
ATTN: Chief Executive Officer

10. Nonwaiver. The failure of either party to insist upon or enforce, in any instance, strict performance by the other of any of the terms of this Agreement or to exercise any rights herein conferred shall not be considered as a waiver or relinquishment to any extent of its rights to assert or rely upon any such terms or rights on any future occasion.



11. Amendments. No waiver, alteration, amendment or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of both Parties.

12. Entire Agreement. This Agreement, which is entered into in accordance with the authority of the Sales and Purchases Tariff, constitutes the entire agreement between the Parties with respect to the subject matter hereof and supersedes all previous and collateral agreements or understandings with respect to the subject matter hereof.

13. Severability. It is agreed that if any clause or provision of this Agreement is held by the courts to be illegal or void, the validity of the remaining portions and provisions of the Agreement shall not be affected, and the rights and obligations of the Parties shall be enforced as if the Agreement did not contain such illegal or void clauses or provisions.

WITNESS OUR SIGNATURES effective as of February 1, 2021.

WITNESS: Patricia Echols

ENTERGY LOUISIANA, LLC

BY: Phillip R. May, Jr.

NAME: Phillip R. May, Jr.  
TITLE: President and Chief  
Executive Officer

WITNESS: \_\_\_\_\_

ENTERGY NEW ORLEANS, LLC

BY: \_\_\_\_\_

NAME: David Ellis  
TITLE: President and Chief  
Executive Officer

11. Amendments. No waiver, alteration, amendment or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of both Parties.

12. Entire Agreement. This Agreement, which is entered into in accordance with the authority of the Sales and Purchases Tariff, constitutes the entire agreement between the Parties with respect to the subject matter hereof and supersedes all previous and collateral agreements or understandings with respect to the subject matter hereof.

13. Severability. It is agreed that if any clause or provision of this Agreement is held by the courts to be illegal or void, the validity of the remaining portions and provisions of the Agreement shall not be affected, and the rights and obligations of the Parties shall be enforced as if the Agreement did not contain such illegal or void clauses or provisions.

WITNESS OUR SIGNATURES effective as of February 1, 2021.

WITNESS: \_\_\_\_\_

ENTERGY LOUISIANA, LLC

BY: \_\_\_\_\_

NAME: Phillip R. May, Jr.  
TITLE: President and Chief  
Executive Officer

WITNESS:  \_\_\_\_\_

ENTERGY NEW ORLEANS, LLC

BY:  \_\_\_\_\_

NAME: David Ellis  
TITLE: President and Chief  
Executive Officer

ATTACHMENT A

SALE OF CAPACITY AND ENERGY

BY ENTERGY LOUISIANA, LLC TO ENTERGY NEW ORLEANS, LLC

This Attachment A is attached to and forms a part of the Agreement, effective as of February 1, 2021, between Entergy New Orleans, LLC ("ENO" or "Buyer") and Entergy Louisiana, LLC ("ELL" or "Seller") pursuant to the Unit Power Sales and Designated Power Purchases Tariff.

During the term of this Agreement, Buyer's Allocated Percentage of capacity and associated energy will be determined as follows:

	SELLER'S UNIT CAPACITY*	BUYER'S ALLOCATED CAPACITY*	BUYER'S ALLOCATED PERCENTAGE
<b>DESIGNATED GENERATING UNITS</b>			
Waterford Unit 1	410.9	7.6	1.84%
Waterford Unit 2	410.8	7.6	1.84%
Waterford Unit 3	1,156.4	21.3	1.84%
Waterford Unit 4	33.4	0.6	1.84%
Ninemile Point Unit 4	699.0	12.9	1.84%
Ninemile Point Unit 5	716.9	13.2	1.84%
Ninemile Point Unit 6***	308.0	5.7	1.84%
Little Gypsy Unit 2	410.7	7.6	1.84%
Little Gypsy Unit 3	520.3	9.6	1.84%
Acadia Power Block 2***	363.6	6.7	1.84%
River Bend 30	194.5	3.6	1.84%
Perryville Unit 1***	132.5	2.4	1.84%
Perryville Unit 2***	36.5	0.7	1.84%
Sterlington Unit 7A	59.3	1.1	1.84%
<b>DESIGNATED POWER PURCHASES</b>			
Oxy-Taft Renewal (July 1, 2018 – May 31, 2028)	480.0	8.8	1.84%
Grand Gulf ELMP	178.1	3.3	1.84%
Vidalia (expires December 31, 2031)	105.3	1.9	1.84%
Grand Gulf EAMP	30.9	0.6	1.84%
Arkansas Nuclear One - Unit 2	26.7	0.5	1.84%
Arkansas Nuclear One - Unit 1	22.7	0.4	1.84%
White Bluff Unit 1	13.1	0.2	1.84%
White Bluff Unit 2	12.2	0.2	1.84%
Independence Unit 1	7.2	0.1	1.84%
Montauk (expires May 31, 2024)	3.2	0.1	1.84%
<b>TOTAL**</b>	<b>5,852.2</b>	<b>107.8</b>	<b>1.84%</b>

\* Expressed in megawatts. To the extent Seller's Unit Capacity in any Designated Generating Unit or Designated Power Purchase increases or decreases, Buyer's Allocated Capacity with respect to such Designated Generating Unit or Designated Power Purchase shall adjust so that it equals the product of Seller's Unit Capacity and Buyer's Allocated Percentage. Buyer's Allocated Percentage will remain fixed for the entire Term of the Agreement.

\*\* Total may not add due to rounding.

\*\*\* The starting point for the amount of Seller's Capacity for Ninemile Point Unit 6 (308.0 MW), Perryville Unit 1 (132.5 MW), Perryville Unit 2 (36.5 MW), and Acadia Power Block 2 (363.6 MW) is Legacy ELL's share, as opposed to Legacy EGSL's or the Combined Company's share.

**Attachment 5**

**CNRO2021-00005**

**Minimum Funding Assurance Calculation Worksheets**

**Minimum Funding Assurance Calculation Worksheets****Plant name:****Arkansas Nuclear One, Unit 1****Year of Biennial:****Month****12****Day****31****Year****2020****Termination of Operation:****5****20****2034**

	<u>MWth</u>	<u>1986\$</u>	ECI	Base Lx		<u>Lx</u>	Px	Fx		<u>Ex</u>		<u>Bx</u>
PWR	2568	\$97,598,400	139.3	1.98	0.65	2.76	2.038	2.559	0.13	2.26	0.22	12.793

**NRC Minimum:****\$478,289,367****Site Specific:**

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	100.00%	\$478,289,367	\$702,362,791

**Step 1:****Earnings Credit:**

Trust Fund Balance:	Real Rate of Return per year	Years Left in License	Total Real Rate of Return:	Total Earnings:	
\$702,362,791	2%	13.39	1.30355	\$915,562,403	Total Earnings = Trust Fund balance x (1+RRR)^Years left in license

**Step 2:****Accumulation:**

Value of Annuity per year	Real Rate of Return per year	Years of Annuity:	Total Annuity:
\$0	2%	0	\$0

Total Step 2
\$0

Total Step 1 + Step 2
\$915,562,403

**Step 3:****Decom Period:**

Total Earnings:	Real Rate of Return per year	Decom Period:	Total Real Rate of Return:	Total Earnings for Decom:	
\$915,562,403	2%	7	0.14869	\$68,065,504	Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^Decom period - 1]

Accumulation during Decom	Total of Steps 1 - 3:	
	\$983,627,907	Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$	505,338,539	to NRC minimum
	\$	(7,808,754)	Less ISFSI
	\$	-	Parent Co Guaranty
	\$	497,529,785	Total Excess Financial Assurance

**Minimum Funding Assurance Calculation Worksheets**

**Plant name:**

**Arkansas Nuclear One, Unit 2**

**Year of Biennial:**

**Month**

**Day**

**Year**

**12**

**31**

**2020**

**Termination of Operation:**

**7**

**17**

**2038**

	MWth	1986\$	ECI	Base Lx		Lx	Px	Fx		Ex		Bx
PWR	3026	\$101,628,800	139.3	1.98	0.65	2.76	2.038	2.559	0.13	2.26	0.22	12.793

**NRC Minimum:**

**\$498,040,690**

**Site Specific:**

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	100.00%	\$498,040,690	\$571,558,041

**Step 1:**

**Earnings Credit:**

Real Rate of  
Return per  
year

Years Left in  
License

Total Real Rate of  
Return:

Total Earnings:

Trust Fund Balance:	2%	17.54	1.41543	\$809,003,046	Total Earnings = Trust Fund balance x (1+RRR)^Years left in license
\$571,558,041					

**Step 2:**

**Accumulation:**

Real Rate of  
Return per  
year

Years of Annuity:

Total Annuity:

Value of Annuity per year	2%	0	\$0
\$0			

Total Step 2

\$0

Total Step 1 + Step 2

\$809,003,046

**Step 3:**

**Decom Period:**

Real Rate of  
Return per  
year

Decom  
Period:

Total Real Rate of  
Return:

Total Earnings for Decom:

Total Earnings:	2%	7	0.14869	\$60,143,579	Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^Decom period - 1]
\$809,003,046					

Accumulation during Decom

Total of Steps 1 - 3:

\$869,146,625

Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$	371,105,935	to NRC minimum
	\$	(7,808,754)	Less ISFSI
	\$	-	Parent Co Guaranty
	\$	363,297,180	Total Excess Financial Assurance

**Minimum Funding Assurance Calculation Worksheets**

**Plant name:**

**Grand Gulf Nuclear Station (SERI 90%)**

**Year of Biennial:**

**Month**

**Day**

**Year**

**12**

**31**

**2020**

**Termination of Operation:**

**11**

**1**

**2044**

	MWth	1986\$	ECI	Base Lx		Lx	Px	Fx		Ex		Bx
BWR	4408	\$135,000,000	139.3	1.98	0.65	2.76	2.038	2.559	0.13	2.28	0.22	12.837

**NRC Minimum:**

**\$663,251,591**

**Site Specific:**

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	90.00%	\$596,926,432	\$1,215,868,112

**Step 1:**

**Earnings Credit:**

**Real Rate of**

Trust Fund Balance:	Return per year	Years Left in License	Total Real Rate of Return:	Total Earnings:	
\$1,215,868,112	2.0%	23.83	1.60317	\$1,949,247,771	Total Earnings = Trust Fund balance x (1+RRR)^Years left in license

**Step 2:**

**Accumulation:**

**Real Rate of**

Value of Annuity per year	Return per year	Years of Annuity:	Total Annuity:
\$0	2.0%	0	\$0

Total Step 2
\$0

Total Step 1 + Step 2
\$1,949,247,771

**Step 3:**

**Decom Period:**

**Real Rate of**

Total Earnings:	Return per year	Decom Period:	Total Real Rate of Return:	Total Earnings for Decom:	
\$1,949,247,771	2%	7	0.14869	\$144,912,603	Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^Decom period - 1]

Accumulation during Decom	Total of Steps 1 - 3:	
	\$2,094,160,374	Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$ 1,497,233,943	to NRC minimum
	\$ (12,178,602)	Less ISFSI
	\$ -	Parent Co Guaranty
	\$ 1,485,055,341	Total Excess Financial Assurance



**Minimum Funding Assurance Calculation Worksheets**

**Plant name:**

**Grand Gulf Nuclear Station (Cooperative Energy 10%)**

**Year of Biennial:**

**Month**

**Day**

**Year**

**Termination of Operation:**

**12**

**31**

**2020**

**11**

**1**

**2044**

	MWth	1986\$	ECI	Base Lx		Lx	Px	Fx		Ex		Bx
BWR	4408	\$135,000,000	139.3	1.98	0.65	2.76	2.038	2.559	0.13	2.28	0.22	12.837

**NRC Minimum:**

**\$663,251,591**

**Site Specific:**

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	10.00%	\$66,325,159	\$102,416,507

**Step 1:**

Earnings Credit:	Real Rate of Return per year	Years Left in License	Total Real Rate of Return:	Total Earnings:	
Trust Fund Balance:					
\$102,416,507	2.91%	23.83	1.98116	\$202,903,619	Total Earnings = Trust Fund balance x (1+RRR)^Years left in license

**Step 2:**

Accumulation:	Real Rate of Return per year	Years of Annuity:	Total Annuity:
Value of Annuity per year			
\$0	2.91%	0	\$0

Total Step 2
\$0

Total Step 1 + Step 2
\$202,903,619

**Step 3:**

Decom Period:	Real Rate of Return per year	Decom Period:	Total Real Rate of Return:	Total Earnings for Decom:	
Total Earnings:					
\$202,903,619	2.91%	7	0.22237	\$22,559,943	Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^Decom period - 1]

Accumulation during Decom	Total of Steps 1 - 3:	
	\$225,463,562	Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$	159,138,403	to NRC minimum
	\$	(1,353,178)	Less ISFSI
	\$	-	Parent Co Guaranty
	\$	157,785,225	Total Excess Financial Assurance

**Minimum Funding Assurance Calculation Worksheets**

**Plant name:**

**River Bend (Regulated 70%)**

**Year of Biennial:**

**Month**

**Day**

**Year**

**12**

**31**

**2020**

**Termination of Operation:**

**8**

**29**

**2045**

	MWth	1986\$	ECI	Base Lx		Lx	Px	Fx		Ex		Bx
BWR	3091	\$131,819,000	139.3	1.98	0.65	2.76	2.038	2.559	0.13	2.28	0.22	12.837

**NRC Minimum:**

**\$647,623,418**

**Site Specific:**

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	70.00%	\$453,336,393	\$565,025,170

**Step 1:**

**Earnings Credit:**

Real Rate of  
Return per  
year

Years Left in  
License

Total Real Rate of  
Return:

Total Earnings:

Trust Fund Balance:	2.00%	24.66	1.62964	\$920,785,009	Total Earnings = Trust Fund balance x (1+RRR)^Years left in license
\$565,025,170					

**Step 2:**

**Accumulation:**

Real Rate of  
Return per  
year

Years of Annuity:

Total Annuity:

Value of Annuity per year	2.00%		
See Annuity Sheet		10	\$190,750,771

Total Step 2  
\$190,750,771

Total Step 1 + Step 2  
\$1,111,535,780

**Step 3:**

**Decom Period:**

Real Rate of  
Return per  
year

Decom  
Period:

Total Real Rate of  
Return:

Total Earnings for Decom:

Total Earnings:	2.00%	7	0.14869	\$82,634,720	Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^Decom period - 1]
\$1,111,535,780					

Accumulation during Decom

Total of Steps 1 - 3:

\$1,194,170,500

Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$	740,834,107	to NRC minimum
	\$	(7,753,800)	Less ISFSI
	\$	-	Parent Co Guaranty
	\$	733,080,307	Total Excess Financial Assurance

**Minimum Funding Assurance Calculation Worksheets**

**Plant name:** River Bend Station (Regulated 70%)

**Assumed Termination of Operations:** 2045

Year	LPSC	PUCT	FERC	Annuity:	Real Rate of Return:	Total Accumulation
2021	\$ 24,915,437	\$ -	\$112,914	\$ 25,028,351	2.0%	\$ 40,256,532
2022	\$ 10,195,000	\$ -	\$112,914	\$ 10,307,914	2.0%	\$ 16,254,542
2023	\$ 10,195,000	\$ -	\$112,914	\$ 10,307,914	2.0%	\$ 15,935,825
2024	\$ 10,195,000	\$ -	\$112,914	\$ 10,307,914	2.0%	\$ 15,623,358
2025	\$ 11,693,000	\$ -	\$112,914	\$ 11,805,914	2.0%	\$ 17,542,967
2026	\$ 11,693,000	\$ -	\$112,914	\$ 11,805,914	2.0%	\$ 17,198,987
2027	\$ 11,693,000	\$ -	\$112,914	\$ 11,805,914	2.0%	\$ 16,861,752
2028	\$ 11,693,000	\$ -	\$112,914	\$ 11,805,914	2.0%	\$ 16,531,130
2029	\$ 11,693,000	\$ -	\$112,914	\$ 11,805,914	2.0%	\$ 16,206,990
2030	\$ 13,513,000	\$ -	\$112,914	\$ 13,625,914	2.0%	\$ 18,338,686
					<b>Total:</b>	<b>\$ 190,750,771</b>

**Total Accumulation = Annuity x (1+RRR)^Years left from Accum**

**Minimum Funding Assurance Calculation Worksheets**

**Plant name:**

**River Bend (Non-Regulated 30%)**

**Year of Biennial:**

**Month**

**12**

**Day**

**31**

**Year**

**2020**

**Termination of Operation:**

**8**

**29**

**2045**

	MWth	1986\$	ECI	Base Lx		Lx	Px	Fx		Ex		Bx
BWR	3091	\$131,819,000	139.3	1.98	0.65	2.76	2.038	2.559	0.13	2.28	0.22	12.837

**NRC Minimum:**

**\$647,623,418**

**Site Specific:**

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	30.00%	\$194,287,025	\$547,169,177

**Step 1:**

**Earnings Credit:**

Real Rate of  
Return per  
year

Years Left in  
License

Total Real Rate of  
Return:

Total Earnings:

Trust Fund Balance:	2%	24.66	1.62964	\$891,686,252	Total Earnings = Trust Fund balance x (1+RRR)^Years left in license
\$547,169,177					

**Step 2:**

**Accumulation:**

Value of Annuity per  
year

Real Rate of  
Return per  
year

Years of Annuity:

Total Annuity:

\$0	2%	0	\$0
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Total Step 2

\$0

Total Step 1 + Step 2

\$891,686,252

**Step 3:**

**Decom Period:**

Real Rate of  
Return per  
year

Decom  
Period:

Total Real Rate of  
Return:

Total Earnings for Decom:

Total Earnings:	2%	7	0.14869	\$66,290,483	Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^Decom period - 1]
\$891,686,252					

Total of Steps 1 - 3:

\$957,976,735

Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$	763,689,710	to NRC minimum
	\$	(3,323,057)	Less ISFSI
	\$	-	Parent Co Guaranty
	\$	760,366,653	Total Excess Financial Assurance

**Minimum Funding Assurance Calculation Worksheets**

**Plant name:**

**Waterford Steam Electric Station, Unit 3**

**Year of Biennial:**

**Month**

**Day**

**Year**

**12**

**31**

**2020**

**Termination of Operation:**

**12**

**18**

**2044**

	MWth	1986\$	ECI	Base Lx		Lx	Px	Fx		Ex		Bx
PWR	3716	\$105,000,000	139.3	1.98	0.65	2.76	2.038	2.559	0.13	2.26	0.22	12.793

**NRC Minimum:**

**\$514,561,546**

**Site Specific:**

Licensee:	% Owned:	Amount of NRC Minimum/Site Specific:	Amount in Trust Fund:
Entergy	100.00%	\$514,561,546	\$681,848,143

**Step 1:**

**Earnings Credit:**

**Real Rate of**

Trust Fund Balance:	Return per year	Years Left in License	Total Real Rate of Return:	Total Earnings:	
\$681,848,143	2%	23.96	1.60730	\$1,095,936,716	Total Earnings = Trust Fund balance x (1+RRR)^Years left in license

**Step 2:**

**Accumulation:**

**Real Rate of**

Value of Annuity per year	Return per year	Years of Annuity:	Total Annuity:
See Annuity Sheet	2%	10	\$140,250,990

Total Step 2
\$140,250,990

Total Step 1 + Step 2
\$1,236,187,706

**Step 3:**

**Decom Period:**

**Real Rate of**

Total Earnings:	Return per year	Decom Period:	Total Real Rate of Return:	Total Earnings for Decom:	
\$1,236,187,706	2%	7	0.14869	\$91,901,697	Total Earnings for Decom = (1/2) x Total Earnings x [(1+RRR)^Decom period - 1]

Accumulation during Decom	Total of Steps 1 - 3:	
	\$1,328,089,403	Total = Total Earnings + Total Earnings for Decom

Excess (Shortfall)	\$	813,527,858	to NRC minimum
	\$	(9,590,536)	Less ISFSI
	\$	-	Parent Co Guaranty
	\$	803,937,322	Total Excess Financial Assurance

**Minimum Funding Assurance Calculation Worksheets**

**Plant name:** Waterford Generation Station, Unit 3

**Assumed Termination of Operations:** 2044

Year	LPSC	CNO	Annuity:	Real Rate of Return:	Total Accumulation
2021	\$ 18,537,648	\$ 151,000	\$ 18,688,648	2.00%	\$ 29,470,116
2022	\$ 7,580,000	\$ 151,000	\$ 7,731,000	2.00%	\$ 11,951,969
2023	\$ 7,580,000	\$ 151,000	\$ 7,731,000	2.00%	\$ 11,717,617
2024	\$ 7,580,000	\$ 151,000	\$ 7,731,000	2.00%	\$ 11,487,859
2025	\$ 8,867,000	\$ -	\$ 8,867,000	2.00%	\$ 12,917,545
2026	\$ 8,867,000	\$ -	\$ 8,867,000	2.00%	\$ 12,664,259
2027	\$ 8,867,000	\$ -	\$ 8,867,000	2.00%	\$ 12,415,941
2028	\$ 8,867,000	\$ -	\$ 8,867,000	2.00%	\$ 12,172,491
2029	\$ 8,867,000	\$ -	\$ 8,867,000	2.00%	\$ 11,933,815
2030	\$ 10,246,000	\$ -	\$ 10,246,000	2.00%	\$ 13,519,379
				<b>Total:</b>	<b>\$140,250,990</b>

**Total Accumulation = Annuity x (1+RRR)^Years left from Accum**