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50-364 50-366 50-425

NL-17-2015

U. S. Nuclear Regulatory Commission  
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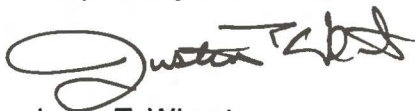
Joseph M. Farley Nuclear Plant Units 1 and 2  
Edwin I. Hatch Nuclear Plant Units 1 and 2  
Vogtle Electric Generating Plant Units 1 and 2  
Response to NRC RAIs Regarding Decommissioning Funding Status Reports

Ladies and Gentlemen:

By letters dated March 30, 2017, Southern Nuclear Operating Company (SNC) submitted decommissioning funding status reports in accordance with 10 CFR 50.75(f)(1) for the subject three plants. On November 8, 2017, the Nuclear Regulatory Commission (NRC) requested additional information to complete its review. Enclosed is the SNC response.

This letter contains no NRC commitments. If you have any questions, please contact Ken McElroy at (205) 992-7369.

Respectfully submitted,

Justin T. Wheat  
Licensing Manager

jtw/efb/cbg

Enclosure:

1. Response to NRC RAIs Regarding Decommissioning Funding Status Reports

cc: NRC Regional Administrator, Region II  
NRC NRR Project Manager – Farley, Hatch, and Vogtle 1-2  
NRC Senior Resident Inspector – Farley, Hatch and Vogtle 1-2  
SNC Records RTYPE: CVC7000

**Joseph M. Farley Nuclear Plant (FNP) Units 1 and 2  
Edwin I. Hatch Nuclear Plant (HNP) Units 1 and 2  
Vogtle Electric Generating Plant (VEGP) Units 1 and 2**

**Enclosure 1**

**Response to NRC RAIs Regarding Decommissioning Funding Status Reports**

#### NRC Request for Additional Information

SNC reported minimum decommissioning fund estimates, pursuant to 10 CFR 50.75(b) and (c), in 2016 dollars, of \$445,550,000, \$582,062,000, and \$421,872,000, for each unit at VEGP, HNP, and FNP, respectively. The NRC staff calculated minimum decommissioning fund estimates that were higher than SNC's reported calculations by \$38.60 million, \$32.62 million, and \$36.55 million for each unit at VEGP, HNP, and FNP, respectively.

In performing its minimum formula calculations, the NRC staff applied low level waste (LLW) burial (Bx) escalation factors of 12.471, 13.132, and 12.471, for VEGP, HNP, and FNP, respectively. Because the SNC nuclear fleet is located in states that are members of the Southeast Compact, the NRC selected Bx escalation factors from the column entitled, "Bx Values for Generators Located in the unaffiliated States and those Located in Compact-Affiliated States having no Disposal Facility," in NUREG-1307, Revision 16, "Report on Waste Disposal Costs at Low-Level Waste Burial Facilities Final Report," Table 2-1 (page 6), "Values of Bx as a Function of LLW Burial Site and Year" (ADAMS Accession No. ML17060A362).

For VEGP, HNP, and FNP, please identify the Bx escalation factor used to calculate the minimum formula amount reported in the March 30, 2017 submittals. Provide a justification for the chosen Bx escalation factor and the source of information and/or assumptions used to derive it. In particular, please provide calculations illustrating the derivation of the reported minimum formula amounts. If the use of a revised Bx escalation factor is deemed necessary, please resubmit the DFS reports for the respective plants.

#### SNC Response

In performing its minimum formula calculations, SNC applied LLW Bx escalation factors of 10.971, 12.111, and 10.971, for VEGP, HNP, and FNP, respectively. Historically, SNC has used the Bx values associated with the South Carolina site for its calculations. As noted in the RAI, when NUREG-1307 Revision 16 was published in March 2017, a new option was added, for the first time, for Bx Values for those plants located in compact-affiliated states having no disposal facility. SNC agrees that this new option is now the most appropriate for the SNC plants. Therefore, SNC is resubmitting the DFS reports for December 2017 in the following attachments along with an illustration of the calculations and how the amounts are derived.

**Joseph M. Farley Nuclear Plant, Units 1 and 2**  
**NRC Formula for Minimum Decommissioning Estimate (MDE)**

$\$75 \text{ million} + 8,800(P) = \text{MDE for a Pressurized Water Reactor (PWR) Plant} < 3,400\text{MWt}$

Where:            P = MWt reactor rating  
                     Plant Farley = 2,775 MWt  
                     MDE expressed in 1986 Dollars (to be escalated)

**Escalation of NRC Formula for MDE**

Estimated Decommissioning Cost in Year XX =  $\text{MDE} \times (.65L + .13E + .22B)$

Where:            *"L" is the Labor factor.* The Labor factor is to be obtained by data provided by the U.S. Department of Labor – Bureau of Labor Statistics. Specifically, the appropriate regional data from the table entitled "Employment Cost Index – Private Industry Workers", subtitled "Total Compensation" is to be used. In Farley's case, data from the South Region is to be used.

*"E" is the Energy factor.* The energy factor is to be obtained from the two component formula listed below specifically weighted for PWR plants:

$$.58P + .42F = E \text{ (Energy Factor)}$$

Where: "P" is the component for electric power and "F" is the component for fuel oil.

Both "P" and "F" can be found in "Producer Price Indices", published by the U.S. Department of Labor – Bureau of Labor Statistics. "P" is to be obtained from the Industrial Electric Power Index and "F" is to be obtained from the Light Fuel Oils Index.

*"B" is the Waste Burial Factor.* The Waste Burial factor is to be obtained from NRC report NUREG-1307, "Report on Waste Burial Charge" or its updates.

**Farley's MDE and Escalation**

$$\text{MDE} = \$75 \text{ million} + \$8,800(P) \text{ (where } P = 2,775 \text{ MWt)}$$

$$\$75 \text{ million} + \$8,800(2,775)$$

$$\$75 \text{ million} + \$24.4 \text{ million} = \$99.4 \text{ million (1986 Dollars)}$$

$$\text{Farley Escalation of MDE} = \$99.4 \text{ million} \times (.65L + .13E + .22B)$$



**Joseph M. Farley Nuclear Plant, Units 1 and 2**  
**2017 Decommissioning Fund Status Report**  
**December 2017 Response to Request for Additional Information**

The following table represents the indexes and MDE calculation used in the March 2017 submittal and the December 2017 re-submittal:

<b><u>March 2017 Submittal</u></b>		<b><u>December 2017 Submittal</u></b>	
<b><u>Labor Factor</u></b>		<b><u>Labor Factor</u></b>	
1986 Index	50.6	2005 Index <sup>3</sup>	1.98
12/2015 Index Used <sup>1</sup>	124.6	12/2016 Index Used <sup>2</sup>	126.2
<b>Labor Escalation</b>	<b>2.462</b>	<b>Labor Escalation</b>	<b>2.499</b>
<b><u>Energy Factor</u></b>		<b><u>Energy Factor</u></b>	
Industrial Electric Power		Industrial Electric Power	
1986 Index	114.2	1986 Index	114.2
12/2015 Index Used <sup>1</sup>	214.8	12/2016 Index Used <sup>2</sup>	211.7
Escalation	1.881	Escalation	1.854
Fuel Oil		Fuel Oil	
1986 Index	82.0	1986 Index	82.0
12/2015 Index Used <sup>1</sup>	131.1	12/2016 Index Used <sup>2</sup>	153.3
Escalation	1.599	Escalation	1.870
Energy Formula	$.58(1.881) + .42(1.599)$	Energy Formula	$.58(1.854) + .42(1.870)$
	$1.091 + .671$		$1.075 + .785$
<b>Total Energy Escalation</b>	<b>1.762</b>	<b>Total Energy Escalation</b>	<b>1.860</b>
<b><u>Waste Burial Factor</u></b>		<b><u>Waste Burial Factor</u></b>	
Combination of Compact Affiliated and Non-Compact South Carolina	<b>10.971</b>	Generators located in the unaffiliated states compact and those located in compact-affiliated states having no disposal facility	<b>12.471</b>
<b><u>MDE Calculation</u></b>		<b><u>MDE Calculation</u></b>	
Adjustment Factor	$.65(2.462) + .13(1.762) + .22(10.971)$	Adjustment Factor	$.65(2.499) + .13(1.860) + .22(12.471)$
	$1.6003 + .2290 + 2.413$		$1.624 + .242 + 2.743$
	4.243 (Rounded)		4.610 (Rounded)
Escalated Cost Formula	\$99.4 million X 4.243	Escalated Cost Formula	\$99.4 million X 4.610
<b>March 2017 MDE</b>	<b>\$421.8 million</b>	<b>December 2017 MDE</b>	<b>\$458.3 million</b>

<sup>1</sup> Used December 2015 index numbers due to December 2016 numbers not being finalized at the time the calculation was performed

<sup>2</sup> Used December 2016 index values

<sup>3</sup> Updated labor index to reflect 2005 as base year per NUREG-1307

**Enclosure**  
**Alabama Power Company**  
**Ownership Percentage – 100%**

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$458,293,000 <sup>2</sup>	\$458,293,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$402,098,838	\$388,100,905
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 2
4	The assumptions used regarding: (a) rates of escalation in decommissioning costs; (b) rates of earnings on decommissioning funds; (c) real rate of return; and (d) rates of other factors used in funding projections.	4.5%  7.0% 2.5% <sup>3</sup> N/A	4.5%  7.0% 2.5% <sup>3</sup> N/A
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	N/A	N/A
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	None	None
7	Any material changes to trust agreements.	See Attachment 3	See Attachment 3

**NOTES:**

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.

<sup>3</sup> The real rate of return of 2.5% was established by the Alabama Public Service Commission's Order pertaining to Informal Docket U-3295 and subsequent submittals pursuant to that Order, most recently on October 28, 2008.

**Attachment 1**  
**Schedule of the Annual Amounts Remaining to be Collected**

**Alabama Power Company**  
**Farley Nuclear Plant Unit 1**

Year	Beginning Fund Balance	Fund Earnings	Fund Contributions	Ending Fund Balance	Minimum Decommissioning Fund Estimate
2016				402,098,838	458,293,000
2017	402,098,838	28,146,919	464,149	430,709,906	478,916,185
2018	430,709,906	30,149,693	464,149	461,323,748	500,467,413
2019	461,323,748	32,292,662	464,149	494,080,559	522,988,447
2020	494,080,559	34,585,639	464,149	529,130,348	546,522,927
2021	529,130,348	37,039,124	464,149	566,633,621	571,116,459
2022	566,633,621	39,664,353	464,149	606,762,123	596,816,699
2023	606,762,123	42,473,349	464,149	649,699,621	623,673,451
2024	649,699,621	45,478,973	464,149	695,642,743	651,738,756
2025	695,642,743	48,694,992	464,149	744,801,885	681,067,000
2026	744,801,885	52,136,132	464,149	797,402,165	711,715,015
2027	797,402,165	55,818,152	464,149	853,684,466	743,742,191
2028	853,684,466	59,757,913	464,149	913,906,528	777,210,589
2029	913,906,528	63,973,457	464,149	978,344,134	812,185,066
2030	978,344,134	68,484,089	464,149	1,047,292,372	848,733,394
2031	1,047,292,372	73,310,466	464,149	1,121,066,987	886,926,397
2032	1,121,066,987	78,474,689	464,149	1,200,005,825	926,838,085
2033	1,200,005,825	84,000,408	464,149	1,284,470,382	968,545,798
2034	1,284,470,382	89,912,927	464,149	1,374,847,458	1,012,130,359
2035	1,374,847,458	96,239,322	464,149	1,471,550,929	1,057,676,225
2036	1,471,550,929	103,008,565	464,149	1,575,023,643	1,105,271,656
2037	1,575,023,643	110,251,655	464,149	1,685,739,447	1,155,008,880



**Attachment 2**  
**Schedule of the Annual Amounts Remaining to be Collected**

**Alabama Power Company**  
**Farley Nuclear Plant Unit 2**

Year	Beginning Fund Balance	Fund Earnings	Fund Contributions	Ending Fund Balance	Minimum Decommissioning Fund Estimate
2016				388,100,905	458,293,000
2017	388,100,905	27,167,063	402,004	415,669,972	478,916,185
2018	415,669,972	29,096,898	402,004	445,168,874	500,467,413
2019	445,168,874	31,161,821	402,004	476,732,700	522,988,447
2020	476,732,700	33,371,289	402,004	510,505,993	546,522,927
2021	510,505,993	35,735,419	402,004	546,643,416	571,116,459
2022	546,643,416	38,265,039	402,004	585,310,459	596,816,699
2023	585,310,459	40,971,732	402,004	626,684,195	623,673,451
2024	626,684,195	43,867,894	402,004	670,954,093	651,738,756
2025	670,954,093	46,966,787	402,004	718,322,884	681,067,000
2026	718,322,884	50,282,602	402,004	769,007,489	711,715,015
2027	769,007,489	53,830,524	402,004	823,240,018	743,742,191
2028	823,240,018	57,626,801	402,004	881,268,823	777,210,589
2029	881,268,823	61,688,818	402,004	943,359,644	812,185,066
2030	943,359,644	66,035,175	402,004	1,009,796,824	848,733,394
2031	1,009,796,824	70,685,778	402,004	1,080,884,605	886,926,397
2032	1,080,884,605	75,661,922	402,004	1,156,948,532	926,838,085
2033	1,156,948,532	80,986,397	402,004	1,238,336,933	968,545,798
2034	1,238,336,933	86,683,585	402,004	1,325,422,522	1,012,130,359
2035	1,325,422,522	92,779,577	402,004	1,418,604,103	1,057,676,225
2036	1,418,604,103	99,302,287	402,004	1,518,308,394	1,105,271,656
2037	1,518,308,394	106,281,588	402,004	1,624,991,985	1,155,008,880
2038	1,624,991,985	113,749,439	402,004	1,739,143,428	1,206,984,280
2039	1,739,143,428	121,740,040	402,004	1,861,285,472	1,261,298,572
2040	1,861,285,472	130,289,983	402,004	1,991,977,459	1,318,057,008
2041	1,991,977,459	139,438,422	0	2,131,415,883	1,377,369,573



### **Attachment 3**

#### **Material Changes to Trust Agreement**

**March 2015** Moved funds for Large Cap Growth to Northern Trust from CastleArk

**March 2015** Diversified fixed income investments by adding catastrophe bond fund manager StoneRidge

**April 2015** Added Azalea Capital Fund IV as an Alternative Investment

**May 2015** Moved funds for Mid Cap Value Equities to MFS from Fisher Investments

**June 2015** Moved funds for International Equities to Invesco and EuroPac from Boston Co.

**July 2015** Added Portfolio Advisors Private Equity Fund VIII as an Alternative Investment

**December 2015** Moved funds for Mid Cap Growth to Eagle Investment Management from Goldman Sachs

**April 2016** Moved multiple equity and fixed income investments within the TOLI from active managers to index funds

**Edwin I. Hatch Nuclear Plant, Units 1 and 2**  
**NRC Formula for Minimum Decommissioning Estimate (MDE)**

$\$104 \text{ million} + 9,000(P) = \text{MDE for a Boiling Water Reactor (BWR) Plant} < 3,400\text{MWt}$

Where:            P = MWt reactor rating  
                     Plant Hatch = 2,804 MWt  
                     MDE expressed in 1986 Dollars (to be escalated)

**Escalation of NRC Formula for MDE**

Estimated Decommissioning Cost in Year XX =  $\text{MDE} \times (.65L + .13E + .22B)$

Where:            "L" is the Labor factor. The Labor factor is to be obtained by data provided by the U.S. Department of Labor – Bureau of Labor Statistics. Specifically, the appropriate regional data from the table entitled "Employment Cost Index – Private Industry Workers", subtitled "Total Compensation" is to be used. In Vogtle's case, data from the South Region is to be used.

"E" is the Energy factor. The energy factor is to be obtained from the two component formula listed below specifically weighted for BWR plants:

$$.54P + .46F = E \text{ (Energy Factor)}$$

Where: "P" is the component for electric power and "F" is the component for fuel oil.

Both "P" and "F" can be found in "Producer Price Indices", published by the U.S. Department of Labor – Bureau of Labor Statistics. "P" is to be obtained from the Industrial Electric Power Index and "F" is to be obtained from the Light Fuel Oils Index.

"B" is the Waste Burial Factor. The Waste Burial factor is to be obtained from NRC report NUREG-1307, "Report on Waste Burial Charge" or its updates.

**Hatch's MDE and Escalation**

$$\text{MDE} = \$104 \text{ million} + 9,000(P)$$

$$\$104 \text{ million} + 25.2 \text{ million} = \$129.2 \text{ million (1986 Dollars)}$$

$$\text{Hatch Escalation of MDE} = \$129.2 \text{ million} \times (.65L + .13E + .22B)$$

**Edwin I. Hatch Nuclear Plant, Units 1 and 2**  
**2017 Decommissioning Fund Status Report**  
**December 2017 Response to Request for Additional Information**

The following table represents the indexes and MDE calculation used in the March 2017 submittal and the December 2017 re-submittal:

<b><u>March 2017 Calculation</u></b>		<b><u>December 2017 Submittal</u></b>	
<b><u>Labor Factor</u></b>		<b><u>Labor Factor</u></b>	
1986 Index	50.6	2005 Index <sup>3</sup>	1.98
12/2015 Index Used <sup>1</sup>	124.6	12/2016 Index Used <sup>2</sup>	126.2
<b>Labor Escalation</b>	<b>2.462</b>	<b>Labor Escalation</b>	<b>2.499</b>
<b><u>Energy Factor</u></b>		<b><u>Energy Factor</u></b>	
Industrial Electric Power		Industrial Electric Power	
1986 Index	114.2	1986 Index	114.2
12/2015 Index Used <sup>1</sup>	214.8	12/2016 Index Used <sup>2</sup>	211.7
Escalation	1.881	Escalation	1.854
Fuel Oil		Fuel Oil	
1986 Index	82.0	1986 Index	82.0
12/2015 Index Used <sup>1</sup>	131.1	12/2016 Index Used <sup>2</sup>	153.3
Escalation	1.599	Escalation	1.870
Energy Formula	$.54(1.881) + .46(1.599)$	Energy Formula	$.54(1.854) + .46(1.870)$
	1.016 + .735		1.001 + .860
<b>Total Energy Escalation</b>	<b>1.751</b>	<b>Total Energy Escalation</b>	<b>1.861</b>
<b><u>Waste Burial Factor</u></b>		<b><u>Waste Burial Factor</u></b>	
Combination of Compact Affiliated and Non-Compact South Carolina	<b>12.111</b>	Generators located in the unaffiliated states compact and those located in compact-affiliated states having no disposal facility	<b>13.132</b>
<b><u>MDE Calculation</u></b>		<b><u>MDE Calculation</u></b>	
Adjustment Factor	$.65(2.462) + .13(1.751) + .22(12.111)$	Adjustment Factor	$.65(2.499) + .13(1.861) + .22(13.132)$
	1.6003 + .2276 + 2.664		1.624 + .242 + 2.889
	4.492 (Rounded)		4.755 (Rounded)
Escalated Cost Formula	\$129.2 million X 4.492	Escalated Cost Formula	\$129.2 million X 4.755
<b>March 2017 MDE</b>	<b>\$580.6 million<sup>4</sup></b>	<b>December 2017 MDE</b>	<b>\$614.5 million</b>

<sup>1</sup> Used December 2015 index numbers due to December 2016 numbers not being finalized at the time the calculation was performed

<sup>2</sup> Used December 2016 index values

<sup>3</sup> Updated labor index to reflect 2005 as base year per NUREG-1307

<sup>4</sup> SNC submitted \$582.0 million in March 2017 submittal. See footnote 1 on page 3.

**Edwin I. Hatch Nuclear Plant, Units 1 and 2**  
**2017 Decommissioning Fund Status Report**  
**December 2017 Response to Request for Additional Information**

The following table represents the MDE Based on Ownership %:

<b><u>Co-Owner</u></b>	<b><u>March 2017 Submittal</u></b>	<b><u>December 2017 Submittal</u></b>
Georgia Power Hatch Unit 1	\$290.8 million	\$307.9 million
Oglethorpe Hatch Unit 1	\$174.2 million	\$184.3 million
MEAG Hatch Unit 1	\$102.8 million	\$108.8 million
Dalton Hatch Unit 1	\$12.8 million <sup>1</sup>	\$13.5 million
<b>Hatch Unit 1 Total</b>	<b>\$580.6 million</b>	<b>\$614.5 million</b>
Georgia Power Hatch Unit 2	\$290.8 million	\$307.9 million
Oglethorpe Hatch Unit 2	\$174.2 million	\$184.3 million
MEAG Hatch Unit 2	\$102.8 million	\$108.8 million
Dalton Hatch Unit 2	\$12.8 million <sup>1</sup>	\$13.5 million
<b>Hatch Unit 2 Total</b>	<b>\$580.6 million</b>	<b>\$614.5 million</b>

<sup>1</sup> SNC mistakenly inserted the Dalton March 2016 MDE annual calculation (\$14.2M) instead of the March 2017 MDE (\$12.8M) in the 2017 DFS Report.



**Edwin I. Hatch Nuclear Plant**

**Georgia Power Company**  
**Ownership Percentage – 50.1%**

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$307,884,000 <sup>2</sup>	\$307,884,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$256,846,668 <sup>3</sup>	\$237,524,936 <sup>3</sup>
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 1
4	The assumptions used regarding: <ul style="list-style-type: none"> <li>(a) rates of escalation in decommissioning costs;</li> <li>(b) rates of earnings on decommissioning funds;</li> <li>(c) real rate of return; and</li> <li>(d) rates of other factors used in funding projections.</li> </ul>	2.49%  4.49%  2.00%  None	2.49%  4.49%  2.00%  None
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	None	None
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	No modifications since the last report. Funding is to an external sinking fund with the sources of funds from traditional cost of service ratemaking as ordered by the GPSC.	No modifications since the last report. Funding is to an external sinking fund with the sources of funds from traditional cost of service ratemaking as ordered by the GPSC.
7	Any material changes to trust agreements.	None	None

**NOTES:**

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.

<sup>3</sup> This amount represents the December 31, 2016 balance of funder in the external trust designated for license termination and does not include funds identified and held in subaccounts within the external trusts for spent fuel management and decommissioning of spent fuel storage facilities (\$14,373,155) for Unit 1 and (\$21,145,391) for Unit 2, which are funded through rates in accordance with the Georgia Public Service Commission Orders.

**GEORGIA POWER COMPANY  
NUCLEAR DECOMMISSIONING  
Based on 12/31/2016 Fund Balances  
(Amounts in Thousands)**

**HATCH 1**

YEAR	BEG OF YEAR FUND BAL	FUND EARNINGS	FUND CONTRIB	Adjusted Annual Expend.	END OF YEAR FUND BAL
2017	\$ 256,847	\$ 11,532	-	-	\$ 268,379
2018	268,379	12,050	-	-	280,429
2019	280,429	12,591	-	-	293,021
2020	293,021	13,157	-	-	306,177
2021	306,177	13,747	-	-	319,925
2022	319,925	14,365	-	-	334,289
2023	334,289	15,010	-	-	349,299
2024	349,299	15,684	-	-	364,982
2025	364,982	16,388	-	-	381,370
2026	381,370	17,124	-	-	398,493
2027	398,493	17,892	-	-	416,386
2028	416,386	18,696	-	-	435,082
2029	435,082	19,535	-	-	454,617
2030	454,617	20,412	-	-	475,029
2031	475,029	21,329	-	-	496,358
2032	496,358	22,286	-	-	518,644
2033	518,644	23,287	-	-	541,931
2034	541,931	13,494	-	-	555,426

NRC Minimum  
\$479,351

**GEORGIA POWER COMPANY  
NUCLEAR DECOMMISSIONING  
Based on 12/31/2016 Fund Balances  
(Amounts in Thousands)**

**HATCH 2**

YEAR	BEG OF YEAR FUND BAL	FUND EARNINGS	FUND CONTRIB	Adjusted Annual Expend.	END OF YEAR FUND BAL
2017	\$ 237,525	\$ 10,665	-	-	\$ 248,190
2018	248,190	11,144	-	-	259,334
2019	259,334	11,644	-	-	270,978
2020	270,978	12,167	-	-	283,144
2021	283,144	12,713	-	-	295,858
2022	295,858	13,284	-	-	309,142
2023	309,142	13,880	-	-	323,022
2024	323,022	14,504	-	-	337,526
2025	337,526	15,155	-	-	352,681
2026	352,681	15,835	-	-	368,516
2027	368,516	16,546	-	-	385,063
2028	385,063	17,289	-	-	402,352
2029	402,352	18,066	-	-	420,417
2030	420,417	18,877	-	-	439,294
2031	439,294	19,724	-	-	459,018
2032	459,018	20,610	-	-	479,628
2033	479,628	21,535	-	-	501,164
2034	501,164	22,502	-	-	523,666
2035	523,666	23,513	-	-	547,179
2036	547,179	24,568	-	-	571,747
2037	571,747	25,671	-	-	597,418
2038	597,418	14,876	-	-	612,294

NRC Minimum  
\$528,908

# Edwin I. Hatch Nuclear Plant

## Oglethorpe Power Corporation Ownership Percentage – 30.0%

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$184,362,000 <sup>2</sup>	\$184,362,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$135,392,810	\$106,442,730
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 1
4	The assumptions used regarding: (a) rates of escalation in decommissioning costs; (b) rates of earnings on decommissioning funds; (c) real rate of return; and (d) rates of other factors used in funding projections.	2.49% 5.00% 2.51% None	2.49% 5.00% 2.51% None
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	None	None
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	None	None
7	Any material changes to trust agreements.	In May 2015 replaced the large cap equity manager with another large cap equity manager. In February 2017 replaced the small cap equity manager with a small/mid cap equity manager	In May 2015 replaced the large cap equity manager with another large cap equity manager. In February 2017 replaced the small cap equity manager with a small/mid cap equity manager

### NOTES:

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.



**Attachment 1**  
**Schedule of the Annual Amounts Remaining to be Collected**  
**Oglethorpe Power Corporation**  
**2016 NRC MINIMUM**

<b>Hatch 1</b>					<b>Hatch 2</b>				
<b>Earnings Rate:</b>		<b>5</b>			<b>Earnings Rate:</b>		<b>5</b>		
<b>Year</b>	<b>Balance Begin Year</b>	<b>Earnings</b>	<b>Contribution</b>	<b>Balance End Year</b>	<b>Year</b>	<b>Balance Begin Year</b>	<b>Earnings</b>	<b>Contribution</b>	<b>Balance End Year</b>
2016	125,941,229	6,297,061	0	135,392,810	2016	99,012,113	4,950,606	0	106,442,730
2017	135,392,810	6,769,641	0	142,162,451	2017	106,442,730	5,322,137	0	111,764,867
2018	142,162,451	7,108,123	0	149,270,573	2018	111,764,867	5,588,243	0	117,353,110
2019	149,270,573	7,463,529	0	156,734,102	2019	117,353,110	5,867,655	0	123,220,765
2020	156,734,102	7,836,705	0	164,570,807	2020	123,220,765	6,161,038	0	129,381,804
2021	164,570,807	8,228,540	0	172,799,347	2021	129,381,804	6,469,090	0	135,850,894
2022	172,799,347	8,639,967	0	181,439,314	2022	135,850,894	6,792,545	0	142,643,438
2023	181,439,314	9,071,966	0	190,511,280	2023	142,643,438	7,132,172	0	149,775,610
2024	190,511,280	9,525,564	0	200,036,844	2024	149,775,610	7,488,781	0	157,264,391
2025	200,036,844	10,001,842	0	210,038,686	2025	157,264,391	7,863,220	0	165,127,610
2026	210,038,686	10,501,934	0	220,540,621	2026	165,127,610	8,256,381	0	173,383,991
2027	220,540,621	11,027,031	0	231,567,652	2027	173,383,991	8,669,200	0	182,053,191
2028	231,567,652	11,578,383	0	243,146,034	2028	182,053,191	9,102,660	0	191,155,850
2029	243,146,034	12,157,302	0	255,303,336	2029	191,155,850	9,557,793	0	200,713,643
2030	255,303,336	12,765,167	0	268,068,503	2030	200,713,643	10,035,682	0	210,749,325
2031	268,068,503	13,403,425	0	281,471,928	2031	210,749,325	10,537,466	0	221,286,791
2032	281,471,928	14,073,596	0	295,545,524	2032	221,286,791	11,064,340	0	232,351,130
2033	295,545,524	14,777,276	0	310,322,801	2033	232,351,130	11,617,557	0	243,968,687
2034	310,322,801	15,516,140	0	325,838,941	2034	243,968,687	12,198,434	0	256,167,121
				<b>NRC Minimum</b>	2035	256,167,121	12,808,356	0	268,975,477
				<b>\$287,037,268</b>	2036	268,975,477	13,448,774	0	282,424,251
					2037	282,424,251	14,121,213	0	296,545,464
					2038	296,545,464	14,827,273	0	311,372,737 **
									<b>NRC Minimum</b>
									<b>\$316,711,811</b>

\*\*When combining the trust balances for both units, there is an overall surplus of \$33M above the NRC minimum.



## Edwin I. Hatch Nuclear Plant

### Municipal Electric Authority of Georgia Ownership Percentage – 17.7%

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$108,773,000 <sup>2</sup>	\$108,773,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$110,640,440	\$110,172,122
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 2
4	The assumptions used regarding: <ul style="list-style-type: none"> <li>(a) rates of escalation in decommissioning costs;</li> <li>(b) rates of earnings on decommissioning funds;</li> <li>(c) real rate of return; and</li> <li>(d) rates of other factors used in funding projections.</li> </ul>	2.49%  4.15%  1.66%  None	2.49%  4.15%  1.66%  None
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	MEAG Power Sales Contracts	MEAG Power Sales Contracts
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	None	None
7	Any material changes to trust agreements.	None	None

#### NOTES:

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.

**Attachment 1**  
**MEAG POWER**  
**Decommissioning Funding Plan**  
**Nuclear Decommissioning Fund - Hatch 1**  
*(Dollars in thousands)*

Calendar Year	Balance at Beg. of Year	Contributions (1)	Earnings	Less: Fees	Balance at End of Year
	(A)	(B)	(C)	(D)	(E)
2016					110,640
2017	110,640	-	4,589	(171)	115,058
2018	115,058	-	4,772	(178)	119,652
2019	119,652	-	4,963	(185)	124,430
2020	124,430	-	5,161	(192)	129,399
2021	129,399	-	5,367	(200)	134,566
2022	134,566	-	5,581	(208)	139,939
2023	139,939	-	5,804	(216)	145,528
2024	145,528	-	6,036	(224)	151,339
2025	151,339	-	6,277	(233)	157,383
2026	157,383	-	6,527	(242)	163,668
2027	163,668	-	6,788	(252)	170,204
2028	170,204	-	7,059	(262)	177,001
2029	177,001	-	7,341	(272)	184,070
2030	184,070	-	7,634	(283)	191,421
2031	191,421	-	7,939	(294)	199,066
2032	199,066	-	8,256	(306)	207,017
2033	207,017	-	8,586	(318)	215,285
2034	215,285	-	5,953	(220)	221,017
2035					
2036					
2037					NRC Minimum
2038					\$169,351
2039					
2040					
2041					
2042					
2043					
2044					
2045					
2046					
2047					
2048					
2049					
Total			114,633	(4,256)	

**Footnotes:**

(1) - Based on the current funding levels and decommissioning forecast, the decommissioning contributions for Hatch Unit One are being suspended.

**Attachment 1**  
**MEAG POWER**  
**Decommissioning Funding Plan**  
**Nuclear Decommissioning Fund - Hatch 2**  
*(Dollars in thousands)*

Calendar Year	Balance at Beg. of Year	Contributions (1)	Earnings	Less: Fees	Balance at End of Year
	(A)	(B)	(C)	(D)	(E)
2016					110,172
2017	110,172	-	4,569	(170)	114,571
2018	114,571	-	4,752	(177)	119,146
2019	119,146	-	4,942	(184)	123,904
2020	123,904	-	5,139	(191)	128,851
2021	128,851	-	5,344	(199)	133,997
2022	133,997	-	5,558	(207)	139,348
2023	139,348	-	5,779	(215)	144,912
2024	144,912	-	6,010	(223)	150,699
2025	150,699	-	6,250	(232)	156,717
2026	156,717	-	6,500	(241)	162,976
2027	162,976	-	6,759	(251)	169,484
2028	169,484	-	7,029	(261)	176,253
2029	176,253	-	7,310	(271)	183,292
2030	183,292	-	7,602	(282)	190,612
2031	190,612	-	7,906	(293)	198,225
2032	198,225	-	8,221	(305)	206,141
2033	206,141	-	8,550	(317)	214,374
2034	214,374	-	8,891	(329)	222,936
2035	222,936	-	9,246	(342)	231,840
2036	231,840	-	9,616	(358)	241,098
2037	241,098	-	10,000	(373)	250,725
2038	250,725	-	5,199	(194)	255,730
2039		-			
2040		-			NRC Minimum
2041		-			\$186,859
2042		-			
2043		-			
2044		-			
2045		-			
2046		-			
2047		-			
2048		-			
2049		-			
Total			151,173	(5,614)	

**Footnotes:**

(1) - Based on the current funding levels and decommissioning forecast, the decommissioning contributions for Hatch Unit Two are being suspended.

## Edwin I. Hatch Nuclear Plant

### Dalton Utilities Ownership Percentage – 2.2%

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$13,520,000 <sup>2</sup>	\$13,520,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$19,694,062	\$19,577,284
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 1
4	The assumptions used regarding: <ul style="list-style-type: none"> <li>(a) rates of escalation in decommissioning costs;</li> <li>(b) rates of earnings on decommissioning funds;</li> <li>(c) real rate of return; and</li> <li>(d) rates of other factors used in funding projections.</li> </ul>	2.49%  2.269% (0.221%)  None	2.49%  2.269% (0.221%)  None
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	None	None
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	None	None
7	Any material changes to trust agreements.	None	None

**NOTES:**

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.



Attachment 1  
Schedule of the Annual Amounts Remaining to be Collected  
Dalton Utilities  
2016NRC MINIMUM

Hatch 1  
Earnings Rate

2.269

Hatch 2  
Earnings Rate

2.269

Year	Balance Beginning of Year	Earnings	Contribution	Balance End of Year	Year	Balance Beginning of Year	Earnings	Contribution	Balance End of Year
2016	19,257,118	436,944	0	19,694,062	2016	19,142,931	434,353	0	19,577,284
2017	19,694,062	446,858	0	20,140,920	2017	19,577,284	444,209	0	20,021,493
2018	20,140,920	456,997	0	20,597,918	2018	20,021,493	454,288	0	20,475,780
2019	20,597,918	467,367	0	21,065,285	2019	20,475,780	464,595	0	20,940,376
2020	21,065,285	477,971	0	21,543,256	2020	20,940,376	475,137	0	21,415,513
2021	21,543,256	488,816	0	22,032,072	2021	21,415,513	485,918	0	21,901,431
2022	22,032,072	499,908	0	22,531,980	2022	21,901,431	496,943	0	22,398,374
2023	22,531,980	511,251	0	23,043,231	2023	22,398,374	508,219	0	22,906,593
2024	23,043,231	522,851	0	23,566,082	2024	22,906,593	519,751	0	23,426,344
2025	23,566,082	534,714	0	24,100,796	2025	23,426,344	531,544	0	23,957,888
2026	24,100,796	546,847	0	24,647,643	2026	23,957,888	543,604	0	24,501,492
2027	24,647,643	559,255	0	25,206,898	2027	24,501,492	555,939	0	25,057,431
2028	25,206,898	571,945	0	25,778,843	2028	25,057,431	568,553	0	25,625,984
2029	25,778,843	584,922	0	26,363,764	2029	25,625,984	581,454	0	26,207,438
2030	26,363,764	598,194	0	26,961,958	2030	26,207,438	594,647	0	26,802,085
2031	26,961,958	611,767	0	27,573,725	2031	26,802,085	608,139	0	27,410,224
2032	27,573,725	625,648	0	28,199,373	2032	27,410,224	621,938	0	28,032,162
2033	28,199,373	639,844	0	28,839,217	2033	28,032,162	636,050	0	28,668,212
2034	28,839,217	654,362	0	29,493,579	2034	28,668,212	650,482	0	29,318,693
					2035	29,318,693	665,241	0	29,983,934
					2036	29,983,934	680,335	0	30,664,270
					2037	30,664,270	695,772	0	31,360,042
					2038	31,360,042	711,559	0	32,071,602
				NRC Minimum					
				\$21,049,586					
									NRC Minimum
									\$23,225,739

**Vogtle Electric Generating Plant, Units 1 and 2**  
**NRC Formula for Minimum Decommissioning Estimate (MDE)**

\$105 million = MDE for a Pressurized Water Reactor (PWR) Plant > 3,400MWt

Where:            Plant Vogtle = 3,625 MWt  
                      MDE expressed in 1986 Dollars (to be escalated)

**Escalation of NRC Formula for MDE**

Estimated Decommissioning Cost in Year XX = MDE X (.65L + .13E + .22B)

Where:            "L" is the Labor factor. The Labor factor is to be obtained by data provided by the U.S. Department of Labor – Bureau of Labor Statistics. Specifically, the appropriate regional data from the table entitled "Employment Cost Index – Private Industry Workers", subtitled "Total Compensation" is to be used. In Vogtle's case, data from the South Region is to be used.

"E" is the Energy factor. The energy factor is to be obtained from the two component formula listed below specifically weighted for PWR plants:

$$.58P + .42F = E \text{ (Energy Factor)}$$

Where: "P" is the component for electric power and "F" is the component for fuel oil.

Both "P" and "F" can be found in "Producer Price Indices", published by the U.S. Department of Labor – Bureau of Labor Statistics. "P" is to be obtained from the Industrial Electric Power Index and "F" is to be obtained from the Light Fuel Oils Index.

"B" is the Waste Burial Factor. The Waste Burial factor is to be obtained from NRC report NUREG-1307, "Report on Waste Burial Charge" or its updates.

**Vogtle's MDE and Escalation**

MDE = \$105 million

\$105 million = \$105 million (1986 Dollars)

Vogtle Escalation of MDE = \$105 million X (.65L + .13E + .22B)

**Vogle Electric Generating Plant, Units 1 and 2**  
**2017 Decommissioning Fund Status Report**  
**December 2017 Response to Request for Additional Information**

The following table represents the indexes and MDE calculation used in the March 2017 submittal and the December 2017 re-submittal:

<b><u>March 2017 Submittal</u></b>		<b><u>December 2017 Submittal</u></b>	
<b><u>Labor Factor</u></b>		<b><u>Labor Factor</u></b>	
1986 Index	50.6	2005 Index <sup>3</sup>	1.98
12/2015 Index Used <sup>1</sup>	124.6	12/2016 Index Used <sup>2</sup>	126.2
<b>Labor Escalation</b>	<b>2.462</b>	<b>Labor Escalation</b>	<b>2.499</b>
<b><u>Energy Factor</u></b>		<b><u>Energy Factor</u></b>	
Industrial Electric Power		Industrial Electric Power	
1986 Index	114.2	1986 Index	114.2
12/2015 Index Used <sup>1</sup>	214.8	12/2016 Index Used <sup>2</sup>	211.7
Escalation	1.881	Escalation	1.854
Fuel Oil		Fuel Oil	
1986 Index	82.0	1986 Index	82.0
12/2015 Index Used <sup>1</sup>	131.1	12/2016 Index Used <sup>2</sup>	153.3
Escalation	1.599	Escalation	1.870
Energy Formula	$.58(1.881) + .42(1.599)$	Energy Formula	$.58(1.854) + .42(1.870)$
	1.091 + .671		1.075 + .785
<b>Total Energy Escalation</b>	<b>1.762</b>	<b>Total Energy Escalation</b>	<b>1.860</b>
<b><u>Waste Burial Factor</u></b>		<b><u>Waste Burial Factor</u></b>	
Combination of Compact Affiliated and Non-Compact South Carolina	<b>10.971</b>	Generators located in the unaffiliated states compact and those located in compact-affiliated states having no disposal facility	<b>12.471</b>
<b><u>MDE Calculation</u></b>		<b><u>MDE Calculation</u></b>	
Adjustment Factor	$.65(2.462) + .13(1.762) + .22(10.971)$	Adjustment Factor	$.65(2.499) + .13(1.860) + .22(12.471)$
	1.6003 + .2290 + 2.413		1.624 + .242 + 2.743
	4.243 (Rounded)		4.610 (Rounded)
Escalated Cost Formula	\$105.0 million X 4.243	Escalated Cost Formula	\$105 million X 4.610
<b>March 2017 MDE</b>	<b>\$445.5 million</b>	<b>December 2017 MDE</b>	<b>\$484.0 million</b>

<sup>1</sup> Used December 2015 index numbers due to December 2016 numbers not being finalized at the time the calculation was performed

<sup>2</sup> Used December 2016 index values

<sup>3</sup> Updated labor index to reflect 2005 as base year per NUREG-1307

**Vogtle Electric Generating Plant, Units 1 and 2**  
**2017 Decommissioning Fund Status Report**  
**December 2017 Response to Request for Additional Information**

The following table represents the MDE Based on Ownership %:

<b><u>Co-Owner</u></b>	<b><u>March 2017 Submittal</u></b>	<b><u>December 2017 Submittal</u></b>
Georgia Power Vogtle Unit 1	\$203.6 million	\$221.2 million
Oglethorpe Vogtle Unit 1	\$133.7 million	\$145.2 million
MEAG Vogtle Unit 1	\$101.1 million	\$109.9 million
Dalton Vogtle Unit 1	\$7.1 million	\$7.7 million
<b>Vogtle Unit 1 Total</b>	<b>\$445.5 million</b>	<b>\$484.0 million</b>
Georgia Power Vogtle Unit 2	\$203.6 million	\$221.2 million
Oglethorpe Vogtle Unit 2	\$133.7 million	\$145.2 million
MEAG Vogtle Unit 2	\$101.1 million	\$109.9 million
Dalton Vogtle Unit 2	\$7.1 million	\$7.7 million
<b>Vogtle Unit 2 Total</b>	<b>\$445.5 million</b>	<b>\$484.0 million</b>



## Vogle Electric Generating Plant

### Georgia Power Company Ownership Percentage – 45.7%

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$221,195,000 <sup>2</sup>	\$221,195,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$127,774,550 <sup>3</sup>	\$137,930,256 <sup>3</sup>
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 1
4	The assumptions used regarding: (a) rates of escalation in decommissioning costs; (b) rates of earnings on decommissioning funds; (c) real rate of return; and (d) rates of other factors used in funding projections.	2.49%  4.49%  2.00%  None	2.49%  4.49%  2.00%  None
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	None	None
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	No modifications since the last report. Funding is to an external sinking fund with the sources of funds from traditional cost of service ratemaking as ordered by the GPSC.	No modifications since the last report. Funding is to an external sinking fund with the sources of funds from traditional cost of service ratemaking as ordered by the GPSC.
7	Any material changes to trust agreements.	None	None

#### NOTES:

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.

<sup>3</sup> This amount represents the December 31, 2016 balance of funds in the external trust designated for license termination and does not include funds identified and held in subaccounts within the external trusts for spent fuel management and decommissioning of spent fuel storage facilities of \$4,264,153 for Unit 1 and \$9,641,516 for Unit 2, which are funded through rates in accordance with the Georgia Public Service Commission Orders.

**GEORGIA POWER COMPANY  
NUCLEAR DECOMMISSIONING  
Based on 12/31/2016 Fund Balances  
(Amounts in Thousands)**

**VOGTLE 1**

	BEG OF YEAR FUND BAL	FUND EARNINGS	FUND CONTRIB	Adjusted Annual Expend.	END OF YEAR FUND BAL
2017	\$ 127,775	\$ 5,755	\$ 495	-	\$ 134,024
2018	134,024	6,035	495	-	140,555
2019	140,555	6,329	495	-	147,378
2020	147,378	6,635	495	-	154,508
2021	154,508	6,955	495	-	161,959
2022	161,959	7,290	495	-	169,743
2023	169,743	7,639	495	-	177,877
2024	177,877	8,004	495	-	186,377
2025	186,377	8,386	495	-	195,258
2026	195,258	8,785	495	-	204,538
2027	204,538	9,201	495	-	214,234
2028	214,234	9,637	495	-	224,366
2029	224,366	10,092	495	-	234,953
2030	234,953	10,567	495	-	246,015
2031	246,015	11,064	495	-	257,574
2032	257,574	11,583	495	-	269,651
2033	269,651	12,125	495	-	282,271
2034	282,271	12,692	495	-	295,458
2035	295,458	13,284	495	-	309,237
2036	309,237	13,902	495	-	323,634
2037	323,634	14,549	495	-	338,678
2038	338,678	15,224	495	-	354,398
2039	354,398	15,930	495	-	370,823
2040	370,823	16,668	495	-	387,985
2041	387,985	17,438	495	-	405,919
2042	405,919	18,243	495	-	424,657
2043	424,657	19,085	495	-	444,237
2044	444,237	19,964	495	-	464,696
2045	464,696	20,883	495	-	486,074
2046	486,074	21,842	495	-	508,411
2047	508,411	12,659	-	-	521,070

NRC Minimum  
\$474,135

**GEORGIA POWER COMPANY  
NUCLEAR DECOMMISSIONING  
Based on 12/31/2016 Fund Balances  
(Amounts in Thousands)**

**VOGTLE 2**

	BEG OF YEAR FUND BAL	FUND EARNINGS	FUND CONTRIB	Adjusted Annual Expend.	END OF YEAR FUND BAL
2017	\$ 137,930	\$ 6,193	-	-	\$ 144,123
2018	144,123	6,471	-	-	150,594
2019	150,594	6,762	-	-	157,356
2020	157,356	7,065	-	-	164,421
2021	164,421	7,383	-	-	171,804
2022	171,804	7,714	-	-	179,518
2023	179,518	8,060	-	-	187,578
2024	187,578	8,422	-	-	196,001
2025	196,001	8,800	-	-	204,801
2026	204,801	9,196	-	-	213,997
2027	213,997	9,608	-	-	223,605
2028	223,605	10,040	-	-	233,645
2029	233,645	10,491	-	-	244,136
2030	244,136	10,962	-	-	255,097
2031	255,097	11,454	-	-	266,551
2032	266,551	11,968	-	-	278,519
2033	278,519	12,506	-	-	291,026
2034	291,026	13,067	-	-	304,092
2035	304,092	13,654	-	-	317,745
2036	317,745	14,267	-	-	332,012
2037	332,012	14,907	-	-	346,920
2038	346,920	15,577	-	-	362,496
2039	362,496	16,278	-	-	378,772
2040	378,772	17,007	-	-	395,779
2041	395,779	17,770	-	-	413,550
2042	413,550	18,568	-	-	432,118
2043	432,118	19,402	-	-	451,520
2044	451,520	20,273	-	-	471,794
2045	471,794	21,184	-	-	492,977
2046	492,977	22,135	-	-	515,112
2047	515,112	23,129	-	-	538,240
2048	538,240	24,167	-	-	562,407
2049	562,407	14,004	-	-	576,411

NRC Minimum  
\$498,040



## Vogle Electric Generating Plant

### Oglethorpe Power Corporation Ownership Percentage – 30.0%

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$145,204,000 <sup>2</sup>	\$145,204,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$78,987,518	\$71,549,263
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 1
4	The assumptions used regarding: <ul style="list-style-type: none"> <li>(a) rates of escalation in decommissioning costs;</li> <li>(b) rates of earnings on decommissioning funds;</li> <li>(c) real rate of return; and</li> <li>(d) rates of other factors used in funding projections.</li> </ul>	2.49%  5.00%  2.51%  None	2.49%  5.00%  2.51%  None
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	None	None
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	None	None
7	Any material changes to trust agreements.	In May 2015 replaced the large cap equity manager with another large cap equity manager. In February 2017 replaced the small cap equity manager with a small/mid cap equity manager	In May 2015 replaced the large cap equity manager with another large cap equity manager. In February 2017 replaced the small cap equity manager with a small/mid cap equity manager

#### NOTES:

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.

**Attachment 1**  
**Schedule of the Annual Amounts Remaining to be Collected**  
**Oglethorpe Power Corporation**  
**2016 NRC MINIMUM**

**Vogtle 1**

Earnings Rate: 5

Year	Balance Begin Year	Earnings	Contribution	Balance End Year
2016	73,473,511	3,673,676	0	78,987,518
2017	78,987,518	3,949,376	0	82,936,894
2018	82,936,894	4,146,845	0	87,083,739
2019	87,083,739	4,354,187	0	91,437,926
2020	91,437,926	4,571,896	0	96,009,822
2021	96,009,822	4,800,491	0	100,810,313
2022	100,810,313	5,040,516	0	105,850,829
2023	105,850,829	5,292,541	0	111,143,370
2024	111,143,370	5,557,168	0	116,700,538
2025	116,700,538	5,835,027	0	122,535,565
2026	122,535,565	6,126,778	0	128,662,344
2027	128,662,344	6,433,117	0	135,095,461
2028	135,095,461	6,754,773	0	141,850,234
2029	141,850,234	7,092,512	0	148,942,746
2030	148,942,746	7,447,137	0	156,389,883
2031	156,389,883	7,819,494	0	164,209,377
2032	164,209,377	8,210,469	0	172,419,846
2033	172,419,846	8,620,992	0	181,040,838
2034	181,040,838	9,052,042	0	190,092,880
2035	190,092,880	9,504,644	0	199,597,524
2036	199,597,524	9,979,876	0	209,577,400
2037	209,577,400	10,478,870	0	220,056,270
2038	220,056,270	11,002,814	0	231,059,084
2039	231,059,084	11,552,954	0	242,612,038
2040	242,612,038	12,130,602	0	254,742,640
2041	254,742,640	12,737,132	0	267,479,772
2042	267,479,772	13,373,989	0	280,853,760
2043	280,853,760	14,042,688	0	294,896,448
2044	294,896,448	14,744,822	0	309,641,271
2045	309,641,271	15,482,064	0	325,123,334
2046	325,123,334	16,256,167	0	341,379,501
2047	341,379,501	17,068,975	0	358,448,476

NRC Minimum  
\$311,246,780

**Vogtle 2**

Earnings Rate: 5

Year	Balance Begin Year	Earnings	Contribution	Balance End Year
2016	66,554,510	3,327,726	0	71,549,263
2017	71,549,263	3,577,463	0	75,126,726
2018	75,126,726	3,756,336	0	78,883,062
2019	78,883,062	3,944,153	0	82,827,216
2020	82,827,216	4,141,361	0	86,968,576
2021	86,968,576	4,348,429	0	91,317,005
2022	91,317,005	4,565,850	0	95,882,855
2023	95,882,855	4,794,143	0	100,676,998
2024	100,676,998	5,033,850	0	105,710,848
2025	105,710,848	5,285,542	0	110,996,391
2026	110,996,391	5,549,820	0	116,546,210
2027	116,546,210	5,827,311	0	122,373,521
2028	122,373,521	6,118,676	0	128,492,197
2029	128,492,197	6,424,610	0	134,916,806
2030	134,916,806	6,745,840	0	141,662,647
2031	141,662,647	7,083,132	0	148,745,779
2032	148,745,779	7,437,289	0	156,183,068
2033	156,183,068	7,809,153	0	163,992,221
2034	163,992,221	8,199,611	0	172,191,832
2035	172,191,832	8,609,592	0	180,801,424
2036	180,801,424	9,040,071	0	189,841,495
2037	189,841,495	9,492,075	0	199,333,570
2038	199,333,570	9,966,679	0	209,300,249
2039	209,300,249	10,465,012	0	219,765,261
2040	219,765,261	10,988,263	0	230,753,524
2041	230,753,524	11,537,676	0	242,291,200
2042	242,291,200	12,114,560	0	254,405,760
2043	254,405,760	12,720,288	0	267,126,048
2044	267,126,048	13,356,302	0	280,482,351
2045	280,482,351	14,024,118	0	294,506,468
2046	294,506,468	14,725,323	0	309,231,792
2047	309,231,792	15,461,590	0	324,693,381
2048	324,693,381	16,234,669	0	340,928,050
2049	340,928,050	17,046,403	0	357,974,453

NRC Minimum  
\$326,939,846



## Vogle Electric Generating Plant

### Municipal Electric Authority of Georgia Ownership Percentage – 22.7%

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$109,871,000 <sup>2</sup>	\$109,871,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$111,947,589	\$107,008,868
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 2
4	The assumptions used regarding: <ul style="list-style-type: none"> <li>(a) rates of escalation in decommissioning costs;</li> <li>(b) rates of earnings on decommissioning funds;</li> <li>(c) real rate of return; and</li> <li>(d) rates of other factors used in funding projections.</li> </ul>	2.49%  4.15%  1.66%  None	2.49%  4.15%  1.66%  None
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	MEAG Power Sales Contracts	MEAG Power Sales Contracts
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	None	None
7	Any material changes to trust agreements.	None	None

#### NOTES:

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.

**Attachment 1**  
**MEAG POWER**  
**Decommissioning Funding Plan**  
**Nuclear Decommissioning Fund - Vogtle 1**  
*(Dollars in Thousands)*

Calendar Year	Balance at Beg. of Year	Contributions (1)	Earnings	Less: Fees	Balance at End of Year
	(A)	(B)	(C)	(D)	(E)
2016					111,948
2017	111,948	-	4,643	(173)	116,418
2018	116,418	-	4,828	(180)	121,066
2019	121,066	-	5,021	(187)	125,900
2020	125,900	-	5,222	(194)	130,928
2021	130,928	-	5,430	(202)	136,156
2022	136,156	-	5,647	(210)	141,593
2023	141,593	-	5,873	(218)	147,247
2024	147,247	-	6,107	(227)	153,128
2025	153,128	-	6,351	(236)	159,243
2026	159,243	-	6,605	(245)	165,602
2027	165,602	-	6,868	(255)	172,215
2028	172,215	-	7,143	(265)	179,093
2029	179,093	-	7,428	(275)	186,246
2030	186,246	-	7,725	(286)	193,684
2031	193,684	-	8,033	(298)	201,419
2032	201,419	-	8,354	(309)	209,463
2033	209,463	-	8,687	(322)	217,829
2034	217,829	-	9,034	(334)	226,529
2035	226,529	-	9,395	(348)	235,577
2036	235,577	-	9,771	(364)	244,983
2037	244,983	-	10,161	(379)	254,765
2038	254,765	-	10,566	(394)	264,938
2039	264,938	-	10,988	(409)	275,517
2040	275,517	-	11,427	(431)	286,513
2041	286,513	-	11,883	(448)	297,948
2042	297,948	-	12,357	(466)	309,839
2043	309,839	-	12,851	(484)	322,206
2044	322,206	-	13,363	(503)	335,066
2045	335,066	-	13,897	(523)	348,440
2046	348,440	-	14,452	(544)	362,348
2047	362,348	-	1,252	(47)	363,553
2048		-			
2049		-			
Total			261,363	(9,757)	NRC Minimum \$235,510

**Footnotes:**

(1) - Based on the current funding levels and decommissioning forecast, the decommissioning contributions for Vogtle Unit One are being suspended.

**Attachment 1**  
**MEAG POWER**  
**Decommissioning Funding Plan**  
**Nuclear Decommissioning Fund - Vogtle 2**  
*(Dollars in Thousands)*

Calendar Year	Balance at Beg. of Year	Contributions (1)	Earnings	Less: Fees	Balance at End of Year
	(A)	(B)	(C)	(D)	(E)
2016					107,009
2017	107,009	-	4,438	(165)	111,282
2018	111,282	-	4,615	(172)	115,725
2019	115,725	-	4,800	(179)	120,346
2020	120,346	-	4,991	(186)	125,152
2021	125,152	-	5,191	(193)	130,149
2022	130,149	-	5,398	(201)	135,347
2023	135,347	-	5,613	(209)	140,751
2024	140,751	-	5,838	(217)	146,372
2025	146,372	-	6,071	(225)	152,217
2026	152,217	-	6,313	(234)	158,296
2027	158,296	-	6,565	(244)	164,618
2028	164,618	-	6,828	(253)	171,192
2029	171,192	-	7,100	(263)	178,029
2030	178,029	-	7,384	(274)	185,139
2031	185,139	-	7,679	(285)	192,533
2032	192,533	-	7,985	(296)	200,223
2033	200,223	-	8,304	(308)	208,219
2034	208,219	-	8,636	(320)	216,535
2035	216,535	-	8,981	(332)	225,184
2036	225,184	-	9,340	(348)	234,175
2037	234,175	-	9,712	(362)	243,526
2038	243,526	-	10,100	(376)	253,250
2039	253,250	-	10,504	(391)	263,362
2040	263,362	-	10,923	(412)	273,873
2041	273,873	-	11,359	(428)	284,803
2042	284,803	-	11,812	(445)	296,170
2043	296,170	-	12,284	(463)	307,991
2044	307,991	-	12,774	(481)	320,284
2045	320,284	-	13,284	(500)	333,068
2046	333,068	-	13,814	(520)	346,362
2047	346,362	-	14,365	(540)	360,188
2048	360,188	-	14,939	(562)	374,565
2049	374,565	-	2,589	(101)	377,053
Total			280,529	(10,484)	

NRC Minimum  
\$247,384

Footnotes:

(1) - Based on the current funding levels and decommissioning forecast, the decommissioning contributions for Vogtle Unit Two are being suspended.

## Vogtle Electric Generating Plant

### Dalton Utilities Ownership Percentage – 1.6%

	10 CFR 50.75(f)(1) Requirement	Unit 1	Unit 2
1	The NRC minimum decommissioning estimate, pursuant to 10 CFR 50.75(b) and (c). <sup>1</sup>	\$7,744,000 <sup>2</sup>	\$7,744,000 <sup>2</sup>
2	The amount accumulated at the end of the calendar year preceding the date of the report for items included in 10 CFR 50.75(b) and (c).	\$10,577,080	\$10,127,249
3	A schedule of the annual amounts remaining to be collected; for items in 10 CFR 50.75(b) and (c).	See Schedule in Attachment 1	See Schedule in Attachment 1
4	The assumptions used regarding: (a) rates of escalation in decommissioning costs; (b) rates of earnings on decommissioning funds; (c) real rate of return; and (d) rates of other factors used in funding projections.	2.49%  2.269% (0.221%) None	2.49%  2.269% (0.221%) None
5	Any contracts upon which the licensee is relying pursuant to 10 CFR 50.75(e)(1)(v).	None	None
6	Any modifications to a licensee's current method of providing financial assurance occurring since the last submitted report.	None	None
7	Any material changes to trust agreements.	None	None

#### NOTES:

<sup>1</sup> The NRC formulas in section 10 CFR 50.75(c) include only those decommissioning costs incurred by licensees to remove a facility or site safely from service and reduce residual radioactivity to levels that permit: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license. The cost of dismantling or demolishing non-radiological systems and structures is not included in the NRC decommissioning cost estimates. The costs of managing and storing spent fuel on-site until transfer to DOE are not included in the cost formulas.

<sup>2</sup> This amount is based on NUREG-1307, Rev. 16, for generators located in the unaffiliated states and those located in compact-affiliated states having no disposal facility and the December 2016 BLS data for labor and energy.



Attachment 1  
Schedule of the Annual Amounts Remaining to be Collected  
Dalton Utilities  
2016 NRC MINIMUM

Vogtle 1					Vogtle 2				
Earnings Rate					Earnings Rate				
2.269					2.269				
Year	Balance Beginning of Year	Earnings	Contribution	Balance End of Year	Year	Balance Beginning of Year	9897462 Earnings	Contribution	Balance End of Year
2016	10,342,411	234,669	0	10,577,080	2016	9,902,560	224,689	0	10,127,249
2017	10,577,080	239,994	0	10,817,074	2017	10,127,249	229,787	0	10,357,036
2018	10,817,074	245,439	0	11,062,513	2018	10,357,036	235,001	0	10,592,037
2019	11,062,513	251,008	0	11,313,522	2019	10,592,037	240,333	0	10,832,371
2020	11,313,522	256,704	0	11,570,226	2020	10,832,371	245,786	0	11,078,157
2021	11,570,226	262,528	0	11,832,754	2021	11,078,157	251,363	0	11,329,521
2022	11,832,754	268,485	0	12,101,239	2022	11,329,521	257,067	0	11,586,587
2023	12,101,239	274,577	0	12,375,816	2023	11,586,587	262,900	0	11,849,487
2024	12,375,816	280,807	0	12,656,624	2024	11,849,487	268,865	0	12,118,352
2025	12,656,624	287,179	0	12,943,802	2025	12,118,352	274,965	0	12,393,317
2026	12,943,802	293,695	0	13,237,497	2026	12,393,317	281,204	0	12,674,522
2027	13,237,497	300,359	0	13,537,856	2027	12,674,522	287,585	0	12,962,107
2028	13,537,856	307,174	0	13,845,030	2028	12,962,107	294,110	0	13,256,217
2029	13,845,030	314,144	0	14,159,174	2029	13,256,217	300,784	0	13,557,000
2030	14,159,174	321,272	0	14,480,445	2030	13,557,000	307,608	0	13,864,609
2031	14,480,445	328,561	0	14,809,007	2031	13,864,609	314,588	0	14,179,197
2032	14,809,007	336,016	0	15,145,023	2032	14,179,197	321,726	0	14,500,923
2033	15,145,023	343,641	0	15,488,664	2033	14,500,923	329,026	0	14,829,949
2034	15,488,664	351,438	0	15,840,101	2034	14,829,949	336,492	0	15,166,440
2035	15,840,101	359,412	0	16,199,513	2035	15,166,440	344,127	0	15,510,567
2036	16,199,513	367,567	0	16,567,080	2036	15,510,567	351,935	0	15,862,501
2037	16,567,080	375,907	0	16,942,987	2037	15,862,501	359,920	0	16,222,422
2038	16,942,987	384,436	0	17,327,424	2038	16,222,422	368,087	0	16,590,508
2039	17,327,424	393,159	0	17,720,583	2039	16,590,508	376,439	0	16,966,947
2040	17,720,583	402,080	0	18,122,663	2040	16,966,947	384,980	0	17,351,927
2041	18,122,663	411,203	0	18,533,866	2041	17,351,927	393,715	0	17,745,642
2042	18,533,866	420,533	0	18,954,400	2042	17,745,642	402,649	0	18,148,291
2043	18,954,400	430,075	0	19,384,475	2043	18,148,291	411,785	0	18,560,076
2044	19,384,475	439,834	0	19,824,309	2044	18,560,076	421,128	0	18,981,204
2045	19,824,309	449,814	0	20,274,122	2045	18,981,204	430,684	0	19,411,887
2046	20,274,122	460,020	0	20,734,142	2046	19,411,887	440,456	0	19,852,343
2047	20,734,142	470,458	0	21,204,600	2047	19,852,343	450,450	0	20,302,793
					2048	20,302,793	460,670	0	20,763,463
					2049	20,763,463	471,123	0	21,234,586
NRC Minimum \$16,599,371					NRC Minimum \$17,436,311				