

Direct Testimony of Forest Bradley-Wright  
Southern Alliance for Clean Energy & Southface Energy Institute, Inc.  
Georgia PSC, Docket No. 44161

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

**In Re:**

**Georgia Power Company's 2022 Application for            )**  
**The Certification, Decertification, and Amended        )**       **DOCKET NO. 44161**  
**Demand-Side Management Plan                            )**

**DIRECT TESTIMONY OF FOREST BRADLEY-WRIGHT**  
**ON BEHALF OF**  
**SOUTHERN ALLIANCE FOR CLEAN ENERGY AND**  
**SOUTHFACE ENERGY INSTITUTE, INC.**

**May 6, 2022**

1 **I. INTRODUCTION**

2 **Q: PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS.**

3 A: My name is Forest Bradley-Wright. I am the Energy Efficiency Director for the Southern  
4 Alliance for Clean Energy (“SACE”), and my business address is 3804 Middlebrook Pike,  
5 Knoxville, Tennessee.

6

7 **Q: ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

8 A: I am testifying on behalf of SACE and Southface Energy Institute, Inc. (“Southface”).

9

10 **Q: PLEASE SUMMARIZE YOUR QUALIFICATIONS AND WORK EXPERIENCE.**

11 A: I graduated from Tulane University in 2001 with a Bachelor of Arts degree in Latin  
12 American Studies and in 2013 received my Master of Arts degree from Tulane in Latin  
13 America Studies with an emphasis on international development, sustainability, and natural  
14 resource planning. My work experience includes Shell International Exploration and  
15 Production Co. as a Sustainable Development Team Facilitator.

16 From 2005-2018, I worked for the Alliance for Affordable Energy. As their Senior Policy  
17 Director, I represented the organization through formal intervenor filings and before  
18 regulators at both the Louisiana Public Service Commission and the New Orleans City  
19 Council on issues ranging from Integrated Resource Planning to energy efficiency (“EE”)  
20 rulemaking and program design, rate cases, a utility acquisition case, power plant  
21 certifications, net metering, and utility scale renewables.

1 In 2014, I was a Republican runoff candidate for the 1st District seat on the Louisiana  
2 Public Service Commission. Since 2018, I have been the Energy Efficiency Director for  
3 SACE, where I am responsible for leading dialogue with utilities and regulatory officials  
4 on issues related to EE in resource planning, program design, budgets, and cost recovery.  
5 This takes the form of formal testimony, comments, presentations, and/or informal  
6 meetings in Georgia, Florida, North Carolina, and South Carolina, and with respect to the  
7 Tennessee Valley Authority (“TVA”).  
8

9 **Q: HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE GEORGIA PUBLIC**  
10 **SERVICE COMMISSION (“GPSC” OR “THE COMMISSION”)?**

11 A: Yes, I testified in the proceedings on Georgia Power Company’s (“Georgia Power” or “The  
12 Company”) 2019 Integrated Resource Plan (“IRP”) and Demand-Side Management  
13 (“DSM”) Plan (Docket Nos. 42310 and 42311).  
14

15 **Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

16 A: The purpose of my testimony is to offer and explain the following recommendations:

- 17 1. The Commission should act to expand acquisition of DSM resources at below avoided cost.  
18 Doing so will reduce total costs to customers and represents a least-cost solution to address  
19 needs associated with the Company’s load growth, power plant retirements, and system  
20 reliability.
- 21 2. Georgia Power’s annual efficiency savings targets should be raised to the levels indicated  
22 by the Demand-Side Management Working Group’s (“DSMWG”) Advocates Case.

- 1        3. A new energy efficiency program is needed to capture meaningful levels of efficiency  
2            savings for manufactured housing residents and should be designed to specifically address  
3            the unique challenges and needs associated with this housing type.
- 4        4. In future IRP proceedings, Georgia Power should optimize DSM resources to address  
5            identified resource needs. This analysis should be supplemental and complementary to the  
6            DSM Program Planning Approach and conducted in a fair and transparent manner,  
7            including substantial engagement with stakeholders in the DSM Working Group  
8            (“DSMWG”).
- 9        5. In future IRP proceedings, Georgia Power’s DSM proposals should be consistent with  
10           least-cost planning principles, whereby optimal levels of DSM are determined in  
11           relationship to the Company’s future resource needs. The Company’s total resource  
12           portfolio should prioritize the mix of supply and demand side resources that maintain  
13           reliability and manage future risk at the lowest total utility system cost.
- 14       6. Georgia Power’s proposed changes to the DSM Additional Sum should be rejected. The  
15           methodology and rationale underlying the Company’s Additional Sum proposal are  
16           flawed; will enrich the utility revenues by increasing customer costs without expanding  
17           efficiency savings; and are likely to lead to additional unintended negative consequences.
- 18       7. The Commission should implement and enforce additional accountability with regard to  
19           the DSM savings targets it approves in this proceeding, both to ensure cost-effective  
20           program delivery and sustained investment toward least-cost efficiency programs.  
21           Additionally, the Commission should allow a mechanism by which the Company can roll

1 over DSM investments under special circumstances to make up for prior years' savings  
2 deficits.

3

4 **Q: ARE YOU SUBMITTING EXHIBITS ALONG WITH YOUR TESTIMONY?**

5 A: Yes, I am submitting one (1) exhibit along with my testimony, as follows:

6 EXHIBIT-1: Curriculum Vitae of Forest Bradley-Wright.

7

8 **II. SUMMARY OF FINDINGS AND CONCLUSIONS**

9 **Q: PLEASE SUMMARIZE THE RESULTS OF YOUR REVIEW OF GEORGIA**  
10 **POWER'S PROPOSED 2022 IRP AND DSM PLANS AND THE ANALYSIS YOU**  
11 **HAVE CONDUCTED.**

12 A: The results of my review and analysis of Georgia Power's 2022 IRP and DSM Application  
13 are as follows:

- 14 1. A wide array of low-cost DSM programs are capable of serving the types of energy,  
15 capacity, and reliability needs that Georgia Power has identified in its IRP.
- 16 2. By limiting its analysis of DSM to only the DSM Program Planning Approach, then  
17 removing DSM resources from consideration when solving for future resource needs,  
18 Georgia Power is failing to integrate DSM resources in its planning process.
- 19 3. The benefits of investing in far cheaper EE, rather than more expensive supply  
20 resources, are passed along to all customers, not just those that participated in Georgia  
21 Power's DSM programs.

- 1           4. In Georgia Power’s analysis, the Advocates Case delivers substantially more total cost  
2           savings than the Base Case. In the context of the Company’s IRP process, adopting the  
3           higher level of savings in the Advocates Case is the more reasonable approach since it  
4           leads to the resource portfolio with the lowest utility cost of service. If the energy  
5           savings levels in the Advocates Case are approved, it would also be reasonable to allow  
6           Georgia Power to propose appropriate refinements to the level of savings for individual  
7           programs in each customer class, as long as the total savings levels would ultimately  
8           be achieved.
- 9           5. The Total Resource Cost (“TRC”) Test can be used for initial screening purposes but  
10          is incompatible with economic comparison of DSM versus supply-side resources in the  
11          context of utility resource planning. Of the various cost effectiveness tests used to  
12          evaluate DSM by Georgia Power, the Program Administrator Cost Test (“PACT”) is  
13          best suited for use in IRP resource optimization analysis. This is because the PACT  
14          evaluates cost effectiveness from the perspective of the utility, looking only at utility  
15          expenditures and utility system benefits. choosing higher levels of efficiency  
16          investment that yield more total cost savings is more prudent than lower levels of  
17          investment for a marginally higher PACT ratio.
- 18          6. In the short term, the upfront costs for EE – considered in isolation – could put upward  
19          pressure on rates, while the direct financial benefits to participating customers and the  
20          utility system as a whole are spread out over subsequent years. If only short-term rate  
21          effects are considered, it is possible that direct DSM program costs would appear to  
22          create upward pressure on rates. However, over time the benefits will exceed the direct

- 1 EE program costs, thereby causing downward pressure on rates. With sustained  
2 investment in DSM resources, the downward pressure on rates from EE benefits  
3 ultimately will exceed the upward pressure resulting from the direct expenses that were  
4 paid up front. Just as the economics of a power plant are considered over many years,  
5 so too should the cumulative impacts of past and future planned EE investments.
- 6 7. Both energy consumption and energy expenditures per square foot are higher for  
7 mobile homes than any other residential housing unit type in the South. Manufactured  
8 homes are a priority for a new efficiency program because Georgia Power's Base Case  
9 does not adequately address the needs of these types of homes. In short, households  
10 residing in manufactured homes should be a priority, not an afterthought.
- 11 8. Leading up to the next IRP cycle, the DSMWG should have an active role in working  
12 with Georgia Power to formulate workable strategies for modeling DSM in the next  
13 IRP, with a special focus on overcoming the kinds of challenges the Company stated it  
14 encountered in developing the DSM White Paper
- 15 9. The sole beneficiary of the proposed changes to the DSM Additional Sum is Georgia  
16 Power, not its customers. Moreover, the change would actually increase costs for  
17 customers without actually increasing efficiency savings. For this and other reasons  
18 described below, Georgia Power's Additional Sum proposal should be rejected.  
19 Importantly, the DSM Additional Sum changes Georgia Power sought in the 2019 IRP,  
20 which are nearly identical to the changes it has again proposed, were ultimately rejected  
21 by the Commission in its 2019 Final Order.

1           10. The Company’s arguments against pursuing additional savings in future years to make  
2           up for the deficits 2020 and 2021 raise serious questions about what it means to set  
3           triennial targets in these IRP cycles and point to the need for Commission action to  
4           ensure utility compliance expectations are clear. It also suggests that related policies  
5           must be reviewed and possibly changed to ensure they are flexible enough to  
6           functionally operate across a range of possible circumstances.

7  
8   **III. TESTIMONY**

9   **Q: CAN DSM RESOURCES COST EFFECTIVELY MEET SOME OF GEORGIA**  
10 **POWER’S FUTURE CAPACITY, ENERGY, AND RELIABILITY NEEDS?**

11 A: Absolutely. DSM resources can provide a least-cost solution to meet the load growth,  
12 system reliability, and infrastructure challenges that Georgia Power identified in both the  
13 2022 IRP and DSM dockets. However, the Company’s current resource planning approach  
14 fails to consider the value that these least-cost resources can provide to the Georgia Power  
15 system and for the benefit of all ratepayers. As a result, the Company’s proposed DSM  
16 portfolio and savings targets will result in higher costs to all ratepayers while also failing  
17 to address least-cost solutions for improving system reliability and operational flexibility,  
18 as I examine further below.

19  
20 **Q: CAN YOU BRIEFLY SUMMARIZE THE FUTURE CAPACITY, ENERGY, AND**  
21 **RELIABILITY CHALLENGES THE COMPANY IS TRYING TO SOLVE IN THIS**  
22 **PROCEEDING, WHICH COULD BE ADDRESSED BY DSM RESOURCES?**

1 A: In terms of load growth, or energy demand from customers, from 2022 to 2041, Georgia  
2 Power is forecasting 0.8% average annual growth in energy sales and 0.7% annual  
3 increases in winter and summer peak demand,<sup>1</sup>. In addition, Georgia Power proposes to  
4 retire its remaining fleet of coal power plants and other legacy generators, which represent  
5 a total of 5,241 MW of potential capacity reductions.<sup>2</sup> To fill the gap in the Company's  
6 forecasted load growth created by these retirements, Georgia Power is seeking immediate  
7 approval for 2,356 MW of natural gas power purchase agreements ("PPAs"), as well as  
8 6,000 MW of solar through 2035.<sup>3</sup>

9 Georgia Power also stated that it is facing challenges to maintaining reliability during times  
10 of season peak demand (particularly in the winter) which represents another significant  
11 concern and driver for its future resource needs.<sup>4</sup> To meet Georgia Power's proposed  
12 reserve margin, the Company is seeking 16.25 % above its forecasted load in the summer  
13 and 26% in the winter.<sup>5</sup>

14 The Company has also broadly identified reliability concerns related to transmission and  
15 distribution system operations for a geographic region in North Georgia, driven by legacy  
16 power plant retirements and load growth. The continued expansion of intermittent  
17 renewable energy resources also factor into the company's reliability planning and future  
18 resource needs. A wide array of low-cost DSM programs are capable of serving the types  
19 of energy, capacity, and reliability needs that Georgia Power has identified in its IRP.

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<sup>1</sup> *Georgia Power's 2022 Integrated Resource Plan*, Docket No. 44160, Main Document, Page 1-3.

<sup>2</sup> *Georgia Power's 2022 Integrated Resource Plan*, Docket No. 44160, Technical Appendix Volume 2, Unit Retirement Studies, Table 7.

<sup>3</sup> *Georgia Power's 2022 Integrated Resource Plan*, Docket No. 44160, Main Document, Pages 1-5 and 1-6.

<sup>4</sup> *Id.*, Page 5-26.

<sup>5</sup> *Id.*, Technical Appendix Volume 1, Reserve Margin Study, Page x.

1 Broadly speaking, these programs work by either eliminating energy waste, shifting energy  
2 use from higher demand times to lower demand times, and/or reducing transmission and  
3 distribution system constraints and congestion. Such programs can be scaled up to reduce  
4 customer energy and demand requirements and lower the need for power generation and/or  
5 transmission investments, overall, or they can be targeted to address resource needs during  
6 select times of the year or for specific geographic regions, lowering costs and improving  
7 the reliability of the system.

8 Georgia Power offers some of these programs now, though it could do substantially more  
9 to increase their scale of impact. Beyond the Company's current program offerings,  
10 additional savings can be achieved by adding new measures and new programs, utilizing  
11 more delivery channels, altering incentive levels, increasing marketing, and better  
12 engaging underserved customer segments. Many of the strategies to achieve higher DSM  
13 savings have been successfully deployed by other utilities, but new technologies and  
14 program delivery approaches are also constantly emerging, creating a regular source of  
15 new savings opportunities.

16  
17 **Q: DID GEORGIA POWER EVALUATE WHETHER HIGHER LEVELS OF DSM**  
18 **RESOURCES COULD COST EFFECTIVELY MEET A PORTION OF ITS**  
19 **FUTURE CAPACITY, ENERGY, AND RELIABILITY RESOURCE NEEDS?**

20 A: No, it did not. Georgia Power witness Andy Phillips acknowledged as much in his  
21 testimony before the Commission on April 5th, 2022:

1 Robert Baker: And when developing the IRP and the proposed DSM  
2 portfolio, did the company pursue increases in the levels of energy  
3 efficiency and demand response resources as a solution to the issues of  
4 power plant retirements, load growth, and winter peak and reliability  
5 concerns?

6 Andy Phillips: No, not specifically related to how the company's proposed  
7 case was developed. As we stated earlier, when developing the company's  
8 proposed base case, we consider a variety of factors, but we do follow the  
9 commission approved DSM Program Planning Approach. And I don't recall  
10 there's any steps in the DSM Program Planning Approach that includes  
11 some of those factors that you specifically cited in your question (Tr. 756).

12 Georgia Power is required to fulfill each of the components of the DSM Program Planning  
13 Approach, culminating in cost-effectiveness analysis determinations. But completion of  
14 the DSM Program Planning Approach is not the limit of what Georgia Power should do  
15 regarding DSM. Fundamental to Integrated Resource Planning is the *integrated* analysis of  
16 available resource options, whereby those choices are considered as alternatives to meet  
17 future resource needs, with the ultimate aim of determining the least cost resource portfolio  
18 mix. DSM is a least-cost resource option that can increase grid reliability and reduce risk.  
19 The Commission has designated DSM as a priority resource, something Georgia Power  
20 barely noted, while simultaneously stating that DSM is analyzed separate from, and prior  
21 to, analysis of supply-side resources. By limiting its analysis of DSM to only the DSM  
22 Program Planning Approach, then removing DSM resources from consideration when

1 solving for future resource needs, Georgia Power is failing to integrate DSM resources in  
2 its planning process.

3  
4 Georgia Power witness testimony indicates that the Company limited the amount of DSM  
5 savings in its proposed 2022 IRP, while supposedly balancing economic efficiency with  
6 upward impact on rates. Meanwhile, the Company failed to consider whether higher levels  
7 of DSM savings could lower the cost of meeting the Company's energy, capacity, and  
8 reliability needs over the IRP planning period. In his testimony before the Commission on  
9 April 5, 2022, Georgia Power witness Andy Phillips responded to the following cross-  
10 examination:

11 Robert Baker: Focusing on the base case portfolio and the efficiency savings  
12 levels proposed for the next three years, does this mean that over the IRP  
13 planning period, the amount customers will pay the company through rates  
14 is less with the base case than without it?

15 Andy Phillips: When we develop the proposed case, the company follows  
16 the nine-step Commission-approved DSM Program Planning Approach. As  
17 we said earlier, we strive in setting those program targets to achieve a  
18 balance of maximizing economic efficiency while minimizing the upward  
19 impact on rates. Those are the considerations in developing it. We don't  
20 consider any rate impact that might result, and we don't consider that  
21 because it's not part of the DSM Program Planning Approach (Tr. 747).

1 Despite seeming to suggest, here, that the Company didn't consider rate impacts, this  
2 assertion can be assessed by comparing the total costs customers pay through rates between  
3 the Company's Base Case versus higher efficiency savings, which will be discussed in  
4 greater depth later in my testimony. Even in the absence of a full competitive modeling  
5 analysis for DSM resources, which Georgia Power did not do, the Company is capable of  
6 increasing the level of DSM savings in its 2022 IRP to assemble a lower-cost, more diverse  
7 resource portfolio, but chose not to.

8  
9 **Q: HOW DO THE ANNUAL SAVINGS LEVELS IN GEORGIA POWER'S 2022 BASE**  
10 **CASE COMPARE TO ITS LOAD GROWTH FORECAST IN THE IRP?**

11 A: Georgia Power's proposed Base Case equates to annual efficiency savings of  
12 approximately 0.43% of its annual retail load, far below most of its peer utilities and the  
13 national average. Efficiency savings as a percentage of annual retail sales provides a  
14 standard metric with which to compare utility efficiency performance over time and across  
15 utility companies of different sizes. To calculate it, I compared the Company's Base Case  
16 energy savings (adjusted from gross to net) to the mean of its reported annual retail sales  
17 from 2016-2000.<sup>6</sup> While some utilities are facing declining customer demand for  
18 electricity, Georgia Power is forecasting 0.8% annual growth over the planning period.<sup>7</sup>

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<sup>6</sup> In his testimony before the Commission on April 5, 2022, Georgia Power witness Andy Phillips stated, "The 431-gigawatt hours are gross savings for the overall portfolio" (Tr. 729). In my calculation, retail sales are based on mean sales Georgia Power reported to EIA for 2016-2020. For comparison purposes, I used the same gross-to-net adjustment of 83.9% for efficiency savings from: Southern Alliance for Clean Energy. February 2022. *Energy Efficiency in the Southeast, Annual Report*. SACE: Atlanta, GA. Available at: <https://cleanenergy.org/wp-content/uploads/Energy-Efficiency-in-the-Southeast-Fourth-Annual-Report.pdf>.

<sup>7</sup> *Georgia Power's 2022 Integrated Resource Plan*, Docket No. 44160, Main Document, Page 1-3.

1           The Company’s annual growth figure already accounts for the impact of DSM savings, so  
2           without DSM, Georgia Power's electricity sales would increase by 1.23%. This is nearly  
3           three times as fast as the rate of its proposed efficiency savings targets.

4  
5   **Q:    IS THERE ADDITIONAL COST-EFFECTIVE DSM POTENTIAL THAT COULD**  
6   **SERVE GEORGIA POWER’S FUTURE RESOURCE NEEDS?**

7   A:    Yes. Three of Georgia Power’s own filings in its 2022 DSM docket point to higher  
8           efficiency savings levels being both cost-effective and achievable. The first is part of the  
9           Commission-ordered DSM Program Planning Approach, wherein Georgia Power was  
10          directed to produce an EE potential study known as the *Technical, Economic, and*  
11          *Achievable Potential Study* (or the “TEAPOT Study”). While the Company redacted the  
12          actual savings levels in the study itself, it references the total achievable savings figures in  
13          the second filing, a report called the *Supply-Side Representation of Energy Efficiency*  
14          *Resources in the Georgia IRP Model* (of the “DSM White Paper”). Both studies include  
15          conservative estimations and assumptions that understate efficiency savings potential; but,  
16          nevertheless, they show that increased incentive levels would yield substantially higher  
17          savings. The TEAPOT Study showed cumulative savings up to 6,638 GWh in 2032 (the  
18          earliest year for which the Company provided data) and 10,158 GWh in 2040.<sup>8</sup> The White  
19          Paper had 5,149 GWh of savings in 2032.<sup>9</sup> By comparison, Georgia Power’s Base Case

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<sup>8</sup> Georgia Power Company, April 30, 2021, *Supply-Side Representation of Energy Efficiency Resources in the Georgia Power IRP Model*, Docket No. 42311, Page 28, Figure A3.

<sup>9</sup> *Id.*, Figure A3.

1 had only 3,387 GWh of cumulative savings in the same year.<sup>10</sup> The third filing relates to  
2 the Aggressive Case in the Company's IRP filing, which is described as the maximum  
3 achievable potential. It had savings of 8,080 GWh, well over twice as much as the Base  
4 Case.<sup>11</sup> All three of these comparison cases are described by the Company as cost effective  
5 and achievable. As I will show shortly, higher levels of efficiency investment like those  
6 described in these three filings will also substantially reduce total utility system costs.

7 In addition to this review of EE potential, SACE/Southface expert witness Dr. Marilyn  
8 Brown's testimony examines opportunities for increased demand response ("DR"), another  
9 significant and largely untapped cost-effective resource with the potential to further reduce  
10 utility system costs.

11  
12 **Q: ARE THE EE RESOURCES IDENTIFIED IN GEORGIA POWER'S DSM**  
13 **POTENTIAL STUDY LESS EXPENSIVE THAN THE COMPANY'S AVOIDED**  
14 **COST?**

15 **A:** Yes. Cost effectiveness is a central factor in Georgia Power's EE potential study, wherein  
16 the costs and benefits of DSM measures and programs are evaluated against the Company's  
17 avoided cost.<sup>12</sup> The avoided cost of energy saved is the estimated marginal cost of  
18 production for the incremental unit of energy avoided through an EE program. Measures  
19 and programs with costs that exceed the Company's estimated avoided cost (i.e. more

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<sup>10</sup> *Georgia Power's 2022 Integrated Resource Plan and Application for the Certification, De-certification, and Amended Demand-Side Management Plan*, Docket Nos. 44160 and 44161, Technical Appendix Volume 1, DSM Case Summary Data MG0, "Proposed Case" tab.

<sup>11</sup> *Id.*, "Aggressive Case" tab.

<sup>12</sup> *Georgia Power Company's Report on Achievable Energy Efficiency Potential Assessment*, Docket No. 43040, February 1, 2021.

1 expensive than supply costs) are screened out. Accordingly, the efficiency measures and  
2 programs in the potential study cost less than the Company's avoided cost for supply. This  
3 was a central function of the Company's DSM potential study analysis.

4  
5 **Q: HISTORICALLY, HAVE THE FINANCIAL BENEFITS OF GEORGIA POWER'S**  
6 **EE PROGRAMS EXCEEDED THE COSTS?**

7 A: Yes, by quite a lot. In its 2018 *Evaluation, Measurement, & Verification* ("EM&V") report,  
8 the Program Administrator Cost Test ("PACT") score for the Company's entire portfolio  
9 of DSM programs was 6.1, which indicates that for every dollar spent by the utility on EE,  
10 there are \$6.10 of net benefits (after expenses) in lower utility system costs.<sup>13</sup> In other  
11 words, over the study period it would have cost the utility over 6x more to meet the same  
12 amount of customer energy needs with supply resources. The benefits of investing in far  
13 cheaper EE, rather than more expensive supply resources, are passed along to *all*  
14 customers, not just those that participated in Georgia Power's DSM programs.

15 Since the last IRP cycle in 2019, the COVID-19 pandemic presented new challenges to  
16 delivering EE programs. In 2020 and 2021, Georgia Power's efficiency saving  
17 performance fell considerably, as did cost effectiveness of its efficiency program portfolio,  
18 which had a PACT score of 3.2.<sup>14</sup> Though lower than previous years, this is nonetheless a  
19 strong PACT score, and is in fact still higher than the performance of many peer utilities  
20 even prior to the pandemic. Unfortunately, despite the high PACT score providing strong

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<sup>13</sup> Calculations were made using data from: (a) *2018 EM&V Report*, Table 1-6, Page 35; (b) *2021 EM&V Report*, Table 6-2, Page 150; and (c) *2021 EM&V Report*, Table 172, Page 450.

<sup>14</sup> Calculations were made using data from the *2021 Residential and Commercial EM&V Reports*.

1 economic justification for expanding the size and scope of Georgia Power’s EE offerings,  
2 the Company has not capitalized on this opportunity anywhere near the level of leading  
3 utilities, or even average utilities.

4  
5 **Q: WHY SHOULD THE PACT BE GIVEN CONSIDERATION IN THE IRP, IN**  
6 **ADDITION TO THE TOTAL RESOURCE COST (“TRC”) TEST?**

7 A: Of the various cost effectiveness tests used to evaluate DSM by Georgia Power, the PACT  
8 is best suited for use in IRP resource optimization analysis. This is because the PACT  
9 evaluates cost effectiveness from the perspective of the utility, looking only at utility  
10 expenditures and utility system benefits. More than any other cost test, this perspective  
11 informs how utility investments in DSM compare to expenditures on alternative supply-  
12 side resources in order to determine the least-cost option, which is central to IRP planning.  
13 By contrast, the TRC test is taken from a societal point of view, wherein costs paid by the  
14 customer are included alongside expenditures by the utility, and the benefits are supposed  
15 to include both utility system benefits and non-utility benefits. Non-utility benefits include  
16 lower operations and maintenance costs, health costs, and non-electric utility expenditures,  
17 to name just a few. But the private dollars paid by customers for upgrades to their buildings,  
18 which are included in the TRC, are irrelevant from a utility planning and investment  
19 perspective. TRC results are still useful, since they provide a bigger picture view on  
20 societal costs and benefits, but their usefulness is limited when evaluating which utility  
21 investment leads to the least-cost utility resource portfolio. For that reason, TRC can be

1 used for initial screening purposes, but is incompatible with economic comparison of DSM  
2 versus supply-side resources in the context of utility resource planning.

3 Ultimately, the Base Case, Advocates Case, and Aggressive Case are all cost effective  
4 under both the TRC and PACT. But by analyzing the relative impact of dollars spent on  
5 DSM resources compared to supply-side alternatives, the PACT is the most informative  
6 cost-effectiveness test for the purposes of optimizing utility resource portfolios in this  
7 proceeding, and it is the most important DSM cost-effectiveness test for the Commission  
8 to consider in this case. Accounting only for utility costs and system benefits (rather than  
9 private customers spending and non-energy benefits), PACT net benefits range from 54-  
10 87% higher than TRC results.

11  
12 **Q: HOW DO THE PACT NET BENEFITS FOR THE ADVOCATES CASE AND**  
13 **GEORGIA POWER'S BASE CASE COMPARE?**

14 A: In Georgia Power's analysis, the Advocates Case delivers substantially more total cost  
15 savings than the Base Case. In the context of the IRP, adopting the higher level of savings  
16 in the Advocates Case is the more reasonable approach since it leads to the resource  
17 portfolio with the lowest utility cost of service. In just the first three years, the Advocates  
18 case will deliver \$620,673,986 in total PACT net benefits. That is \$179,875,764 more than  
19 Georgia Power's Base Case. Over 12 years, net benefits from the Advocates' Case grow  
20 to over \$3.3 billion, which is more than \$1 billion above the Base Case.<sup>15</sup> The higher PACT

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<sup>15</sup> *Georgia Power's 2022 Integrated Resource Plan and Application for the Certification, De-certification, and Amended Demand-Side Management Plan*, Docket Nos. 44160 and 44161, Technical Appendix Volume 2, DSM Program Documentation, DSM Case Summary Data MG0.xlsx.

1 net benefits resulting from EE savings at the level proposed in the Advocates Case  
2 ultimately translate into a lower total utility system costs. In fact, a strategy that truly  
3 prioritizes DSM produces the lowest cost approach to meet customer energy needs of any  
4 alternative resource portfolio mix. This is for the simple reason that supply-side resources  
5 simply cost more than DSM.

6 In Georgia Power's own analysis, the PACT benefit ratio is higher for the Base Case than  
7 the Advocates Case. However, both are well above the 1.0 threshold required to  
8 demonstrate cost effectiveness. Both cases have strong returns on investment, but the  
9 higher total dollar benefits to customers with the Advocate's Case is of far greater value to  
10 customers than the higher PACT ratio with the Base Case. Said another way, choosing  
11 higher levels of efficiency investment that yield more total cost savings is more prudent  
12 than lower levels of investment for a marginally higher PACT ratio.

13  
14 **Q: DID GEORGIA POWER'S WITNESSES EXPLAIN THE IMPACT OF**  
15 **DIFFERENT EE LEVELS ON THE UTILITY'S TOTAL REVENUE**  
16 **REQUIREMENT, RELATIVE TO SUPPLY ALTERNATIVES?**

17 A: They did not. During their testimony before the Commission on April 5, 2022, Georgia  
18 Power witnesses on the DSM panel were unable to speak to the relationship between DSM  
19 investments and the utility's total revenue requirements in the 2022 IRP. Accordingly, they  
20 were unable to answer the questions of whether, or by how much, higher levels of DSM  
21 would reduce the utility's total costs relative to the cost of supply resources in the  
22 Company's proposed plan. The cross-examination exchange is as follows:

1 Robert Baker: Over the IRP planning period, is the Company's total revenue  
2 requirement less with the Advocates' Case DSM portfolio than it would be  
3 with either no DSM portfolio or the Company's Base Case?

4 Andy Phillips: Like I said, I don't think we're prepared to speak to revenue  
5 requirements when we're referring to either the Company's proposed case  
6 or the Advocates' Case (Tr. 748).

7 ...

8 Robert Baker: Doesn't a lower revenue requirement mean lower utility cost  
9 as a general proposition?

10 Andy Phillips: Are you asking [if] lower revenue requirements lead to lower  
11 costs for customers?

12 Robert Baker: Yes, sir. Generally.

13 Andy Phillips: I think so. Like I said, in terms of how we develop the  
14 economics revenue requirements is not something that we consider and it's  
15 not part of the DSM Program Planning Approach (Tr. 762).

16 Georgia Power's DSM witnesses established the proposed DSM savings levels in  
17 the IRP. I request that, in future IRPs cycles, the impact of different levels of DSM  
18 savings on the utility's cost of service be considered and presented when making a  
19 recommendation for DSM savings to the Commission.

20

1 **Q: COMPARED TO GEORGIA POWER’S PROPOSED IRP PLAN, COULD**  
2 **HIGHER LEVELS OF EE REDUCE THE UTILITY’S TOTAL REVENUE**  
3 **REQUIREMENT AND LOWER COSTS FOR CUSTOMERS OVERALL?**

4 A: Yes, increasing the amount of cost-effective DSM in the utility’s total resource portfolio  
5 would reduce the utility’s total revenue requirement, and lower the cost to serve customer  
6 energy needs over the IRP planning period. By definition, cost-effective DSM is less  
7 expensive than supply alternatives. Therefore, increasing investment in DSM savings  
8 within the utility’s overall resource portfolio will offset the need for more expensive supply  
9 resources and reduce utility system costs overall. Although Georgia Power did not include  
10 the Advocates Case in Capacity Expansion Plans workbook, it does show the effect of  
11 higher efficiency savings on total system costs associated with the Aggressive Case.<sup>16</sup>  
12 Thus, Georgia Power has implicitly acknowledged that the higher levels of energy  
13 efficiency associated with the Advocates Case would reduce its total revenue requirement,  
14 thereby lowering costs for customers overall.

15  
16 **Q: HOW MUCH MORE EXPENSIVE WILL GEORGIA POWER’S PROPOSED**  
17 **PORTFOLIO BE COMPARED TO ONE WITH HIGHER LEVELS OF**  
18 **EFFICIENCY SAVINGS?**

19 A: Georgia Power’s own analysis supports the conclusion that higher levels of DSM  
20 investment, well above what Georgia Power has proposed, is the least-cost option. Georgia

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<sup>16</sup> *Georgia Power’s 2022 Integrated Resource Plan and Application for the Certification, De-certification, and Amended Demand-Side Management Plan*, Docket Nos. 44160 and 44161, Technical Appendix Volume 1, Resource Mix Study, Capacity Expansion Plans.xlsx, “SystemCosts” tab.

1 Power projects that total system costs from 2022-2056 are [REDACTED] with the Aggressive  
2 Case compared to Georgia Power's Base Case and [REDACTED] than the No DSM Case.<sup>17</sup>  
3 Because the Aggressive Case has roughly similar levels of spending, energy savings, and  
4 PACT net benefits as the Advocates Case, it can serve as a general proxy for the effect of  
5 the higher levels of efficiency savings that are proposed in the Advocates Case. Georgia  
6 Power discounted the opportunity to lower customer costs through higher levels of DSM  
7 when establishing its Proposed Case. But a [REDACTED] in total system costs is highly  
8 significant, and warrants Commission action to direct Georgia Power to increase EE  
9 investment in the 2022 IRP as a critical component of a least-cost plan.<sup>18</sup>

10  
11 **Q: WHY IS IT IMPORTANT TO CONSIDER THE RATE EFFECT OF DSM**  
12 **RESOURCES IN CONTEXT WITH SUPPLY ALTERNATIVES?**

13 A: Integrated resource planning includes evaluation of a wide range of energy resource  
14 options with the aim of finding the optimal resource portfolio mix. Isolating DSM from  
15 this resource optimization analysis is problematic for many reasons, in part because it  
16 creates the impression that only DSM resources impact rates, while the effect of supply  
17 additions on rates is left unexamined. This effectively discriminates against cost-effective  
18 DSM resources, putting them at a competitive disadvantage, and precludes prudent  
19 consideration of DSM on a level playing field against alternatives. All energy resources  
20 have a cost, so the question is not merely whether DSM will impact rates, but whether such

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<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

1 investments are financially justified by greater benefits compared to supply-side  
2 alternatives. If the plan approved by this Commission limits investment in cost-effective  
3 DSM, as Georgia Power has proposed, it will drive up costs for all Georgia Power  
4 customers.

5  
6 **Q: HOW ARE CUSTOMER RATES AFFECTED BY DSM PROGRAM COSTS AND**  
7 **BENEFITS IN THE SHORT AND LONG TERM?**

8 A: There are three rate impact drivers typically attributed to EE: efficiency costs, efficiency  
9 benefits, and lost revenues (which I will address in the next question). EE program costs  
10 are typically paid in the first year, while the associated benefits extend for many years over  
11 the life of the installed measures. By contrast, supply resource costs are typically spread  
12 out across many years, either through amortization over the useful life of the facility or  
13 power purchase contracts. Because efficiency savings reduce the number of kilowatt hours  
14 sold by the utility, efficiency programs can also have the effect of causing utility supply  
15 sunk costs spread over a smaller number of volumetric units, thereby increasing the cost  
16 per kWh for electricity provided by supply-side resources. But this impact is relatively  
17 small, since the vast majority of costs associated with supply-side resources are volumetric  
18 in nature, such as fuel costs and variable operations and maintenance costs, or the cost of  
19 purchased power.

20 In the short term, the upfront costs for EE – considered in isolation – could put upward  
21 pressure on rates, while the direct financial benefits to participating customers and the  
22 utility system as a whole are spread out over subsequent years. If only short-term rate

1 effects are considered, it is possible that direct DSM program costs would appear to create  
2 upward pressure on rates. However, over time the benefits will exceed the direct EE  
3 program costs, thereby causing downward pressure on rates. With sustained investment in  
4 DSM resources, the downward pressure on rates from EE benefits ultimately will exceed  
5 the upward pressure resulting from the direct expenses that were paid up front. As noted  
6 above, the total utility system cost is lower with higher levels of investment in cost-  
7 effective EE, resulting in a lower level of costs being passed on to customers through rates.  
8 Georgia Power's EE programs have been running for many years now, and the cumulative  
9 savings from past EE investments continue to yield savings today. These annual cumulative  
10 benefits now almost surely exceed annual costs for new EE program investments, but this  
11 is overlooked when future spending on EE is considered in isolation from the larger impact  
12 it has in the Company's resource mix. Just as the economics of a power plant are considered  
13 over many years, so too should the cumulative impacts of past and future planned EE  
14 investments. This will better inform decision making about future efficiency portfolio  
15 investments which, because DSM costs less than the Company's supply-side avoided costs,  
16 will reduce costs for customers.

17  
18 **Q: DO THE COSTS ASSOCIATED WITH LOST REVENUES ORIGINATE FROM**  
19 **DSM PROGRAM EXPENDITURES?**

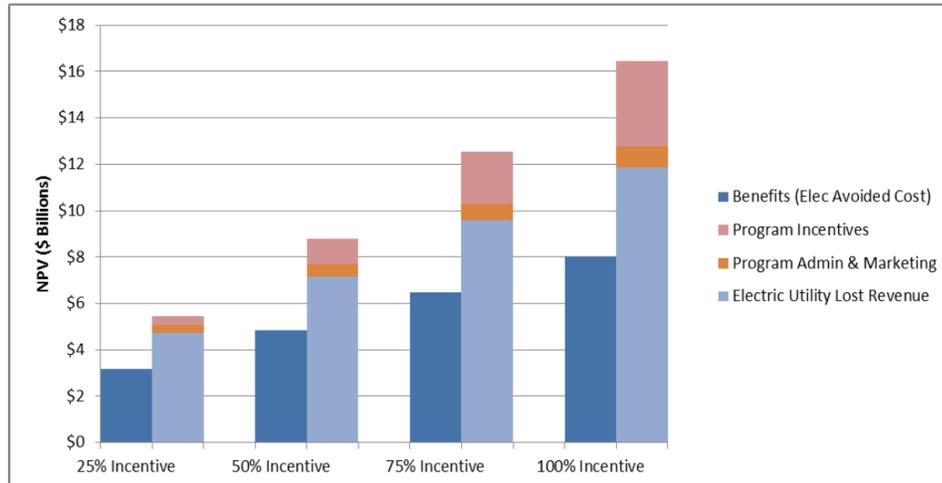
20 A: No. Lost revenue calculations are tied to the utility's collection of its sunk supply costs,  
21 not DSM costs. The only reason lost revenues are considered in relation to DSM resources  
22 is because reducing energy waste also reduces the utility's collection of revenues from

1 volumetric electric sales. If EE programs were to reduce volumetric electricity sales below  
2 the levels assumed when the utility's revenue requirement was set, the company would  
3 under collect and could fall short of its authorized rate of return. Because the utility would  
4 have fewer kilowatt hour sales over which to spread its sunk supply costs, it could seek  
5 authorization to increase rates as a way to bring revenues back up. Similarly, in the event  
6 that the utility underestimates the costs of a supply-side resource or overestimates its future  
7 load growth, the utility may seek an increase in rates to cover the recovery related  
8 imbalances. In both cases, cost causation principles provide a useful framework for  
9 appropriately allocating costs to resources within optimized planning models. Supply costs  
10 are supply costs, regardless of DSM investments.

11  
12 **Q: DO LOST REVENUES ACCOUNT FOR A SIGNIFICANT PORTION OF**  
13 **POTENTIAL RATE IMPACTS IN GEORGIA POWER'S RATEPAYER IMPACT**  
14 **MEASURE ("RIM") ANALYSES?**

15 A: Yes, they do. The Company's RIM test analysis has historically shown that lost revenues  
16 were a substantially larger proportion of potential rate impacts than the cost of the  
17 Company's direct DSM program expenses. The most recent year in which Georgia Power  
18 included a detailed breakdown of RIM cost components in its DSM potential study was  
19 2015. Although the Company ceased providing this information in subsequent IRP cycles,  
20 the underlying dynamics likely have not changed. Georgia Power's 2015 DSM potential  
21 study showed that lost revenues were approximately three to six times higher than all direct  
22 DSM program costs combined, depending on the customer incentive level.

1 **Figure 1. RIM Benefits and Costs by Scenario (Cumulative through 2026)**<sup>19</sup>



2  
3  
4 Paradoxically, although reducing electricity usage to support economic and reliable utility  
5 system operations are to the central purpose of EE programs, the RIM test treats energy  
6 savings as a cost, rather than as a system benefit. As a result, the more effective the  
7 Company's DSM programs are at reducing energy waste and improving utility system  
8 operations, the worse they will perform on the RIM test. By contrast, the more ineffective  
9 the Company's DSM programs are, and the higher customer energy use is, the better the  
10 RIM score will be. Illustrating how nonsensical RIM results can be, installing attic  
11 insulation will produce a negative RIM score (despite its effectiveness at eliminating  
12 energy waste), while ripping out insulation, leaving windows open, and cranking the heater  
13 in the winter would produce a positive RIM score.

14

<sup>19</sup> Georgia Public Service Commission 2013 IRP Final Order, Docket Nos. 36498 and 36499, *Achievable Energy-Efficiency Potentials Assessment*, January 30, 2015.

1 Due to its many flaws, for many years, there has been a movement away from using RIM  
2 for utility resource planning in other jurisdictions across the country.

3  
4 **Q: DO EE SAVINGS INHERENTLY REDUCE GEORGIA POWER'S TOTAL**  
5 **ANNUAL RETAIL KWH SALES AND PREVENT THE COMPANY FROM**  
6 **FULLY RECOVERING ITS SUNK SUPPLY COSTS?**

7 A: No. If the utility sells at least as much electricity as was estimated when its revenue  
8 requirement was set, EE investments would not prevent the utility from recovering its sunk  
9 costs and therefore should not create upward pressure on rates. For instance, population  
10 growth, industry expansion, or seasonal weather trends could increase volumetric  
11 electricity sales more than the Company's efficiency programs decrease sales. If the  
12 Company is meeting or exceeding its authorized annual rate of return there is no basis for  
13 it to also claim lost revenues from DSM, because it has already recovered its sunk costs.

14  
15 **Q: HAS GEORGIA POWER REGULARLY EARNED AT OR ABOVE ITS**  
16 **AUTHORIZED RATE OF RETURN, DESPITE ENERGY SAVINGS FROM ITS**  
17 **DSM PROGRAMS?**

18 A: Yes, it has. Georgia Power substantially exceeded its authorized rate of return in each of  
19 the past 10 years. In five of those years, the Company surpassed the upper limit of its  
20 earnings band and was required to return surplus revenues back to customers.<sup>20</sup> Despite

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<sup>20</sup> See, for example, *Georgia Power's Annual Retail Surveillance Reports* from 2013-2020. Available at:  
2013: <http://www.psc.state.ga.us/factsv2/Document.aspx?documentNumber=157755>  
2014: <http://www.psc.state.ga.us/factsv2/Document.aspx?documentNumber=162283>

1 lost revenues comprising a majority of the costs in the Company's RIM test calculations,  
2 its DSM programs have not caused the company to miss its revenue requirement. If Georgia  
3 Power has sought rate changes specifically to make up for a failure to recover sunk supply  
4 costs due to the effects of the Company's efficiency programs, I am unaware of it.

5  
6 **Q: WHY HAS RIM GONE OUT OF FAVOR AS A COST TEST FOR EVALUATING**  
7 **OPTIMAL LEVELS OF DSM WITHIN INTEGRATED RESOURCE PLANNING?**

8 A: The RIM test is rarely used by utility commissions across the country. Looking at the  
9 historical context within Georgia, as I have outlined above, it is similar to the experience  
10 observed in other states that have since chosen to abandon this test. As noted above, the  
11 largest cost considered in RIM is potential lost revenues collected by the utility, which  
12 reflect sunk supply-side costs and are not appropriately attributable to DSM programs. A  
13 more appropriate value to consider within economic evaluation of DSM programs is the  
14 total revenue requirement – this value is arguably the most important factor when  
15 developing a utility IRP, since it represents the *total system costs and indicates the least-*  
16 *cost plan*. It is also for this reason that I recommend DSM be included as a selectable  
17 resource within expansion plan modeling. For considerations of rate effects and equity,  
18 there are far more effective practices than the RIM test. Going forward, the Commission

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2015: <http://www.psc.state.ga.us/factsv2/Document.aspx?documentNumber=167470>  
2016: <http://www.psc.state.ga.us/factsv2/Document.aspx?documentNumber=170798>  
2017: <https://psc.ga.gov/search/facts-document/?documentId=175827>  
2018: <https://psc.ga.gov/search/facts-document/?documentId=180405>  
2019: <https://psc.ga.gov/search/facts-document/?documentId=184676>  
2020: <https://psc.ga.gov/search/facts-document/?documentId=184754>

1           should examine more modern and effective approaches to evaluating rate effects, and, as  
2           many other jurisdictions are doing, move away from use of RIM in its IRP practices.

3

4   **Q:   HOW DOES ADDRESSING EQUITY ISSUES IN UTILITY EFFICIENCY**  
5       **PROGRAM OFFERINGS ALSO ADDRESS ISSUES OF COST SHIFT**  
6       **ASSOCIATED WITH UTILITY LOST REVENUES?**

7   A:   On an individual basis, customers who have reduced their energy usage through  
8       participation in a utility EE program will pay less relative to customers who have not. This  
9       does not necessarily mean customers who don't participate will pay more than they would  
10      have without efficiency programs, and they may in fact ultimately pay less. That largely  
11      depends on whether the utility's total cost to serve is reduced.

12      Substantial expansion of EE offerings would be required for lost revenues from EE to  
13      exceed Georgia Power's forecasted electric sales growth. But such an expansion in  
14      customer participation in EE programs would also steadily reduce the number of customers  
15      that have not directly benefited from those programs and who might experience negative  
16      effects from upward pressure on rates. The more comprehensive and consistent Georgia  
17      Power's EE program offerings, the more likely that every type of customer will achieve  
18      net bill savings.

19

20   **Q:   DID GEORGIA POWER APPLY RESOURCE OPTIMIZATION ANALYSIS TO**  
21      **SET THE EFFICIENCY SAVINGS LEVELS IN ITS BASE CASE?**

1 A: It did not. In the *2019 IRP Settlement Agreement*, Georgia Power was required to conduct  
2 competitive optimization analysis of DSM resources against supply alternatives, the  
3 findings of which were included in the DSM White Paper, introduced previously. The DSM  
4 White Paper showed that the least-cost resource portfolio included substantially higher  
5 efficiency savings levels than the Company has proposed in its Base Case. But Georgia  
6 Power did not consider this when establishing the efficiency levels in its EE Base Case,  
7 instead freezing savings at the same amount as the Commission required in the 2019 IRP.

8

9 **Q: DO THE FINDINGS OF THE DSM WHITE PAPER CAST FURTHER DOUBT ON**  
10 **WHETHER GEORGIA POWER HAS PRESENTED THE COMMISSION WITH**  
11 **THE LEAST-COST, MOST RELIABLE, LEAST-RISKY RESOURCE PLAN IN**  
12 **ITS PROPOSED 2022 IRP?**

13 A: Yes, the findings of the DSM White Paper show that larger investments in DSM resources  
14 reduce total utility system costs.<sup>21</sup> The fact that Georgia Power did not even consider  
15 increasing DSM savings levels to address resource needs from load growth, power plant  
16 retirements, seasonal peaks, and reliability issues means the Company has almost certainly  
17 selected a resource portfolio that is more expensive.

18

19 **Q: WHAT DO YOU RECOMMEND?**

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<sup>21</sup> Georgia Power Company, April 30, 2021, *Supply-Side Representation of Energy Efficiency Resources in the Georgia Power IRP Model*, Docket No. 42311, Pages 23 and 28.

1 A: I recommend that the Commission order Georgia Power to achieve efficiency savings  
2 targets for 2023-2025 at the levels outlined in the Advocates Case. The Advocates Case  
3 provides a blueprint for additional savings based primarily on Georgia Power's current  
4 portfolio of DSM programs. While I believe this is the right foundation for near term  
5 growth, changes in savings allocations within this program portfolio or new program  
6 additions could be considered – provided that they do not reduce the availability of program  
7 offerings for low-income customers or substantially shift savings away from deeper and  
8 longer lasting measures to measures that produce only short-term savings.

9

10 **Q: DO YOU HAVE CONCERNS WITH HOW GEORGIA POWER ESTABLISHED**  
11 **THE EE SAVINGS LEVELS INDICATED IN ITS BASE CASE?**

12 A: Yes, as noted above, Georgia Power did not select EE savings levels in its Base Case in  
13 response to upcoming resource needs associated with forecasted load growth, power plant  
14 retirements, seasonal peaks, or reliability issues. Nor did the Company determine  
15 efficiency savings levels in its IRP based on a competitive head-to-head comparison of  
16 DSM versus supply resources. As a result, the Company's proposed IRP plan relies on  
17 more expensive supply resources. The plan proposed by Georgia Power for Commission  
18 review in this proceeding is not the least-cost option.

19

20 **Q: IS THERE PRECEDENT FOR THE COMMISSION DIRECTING GEORGIA**  
21 **POWER TO ACQUIRE LESS EXPENSIVE CLEAN ENERGY RESOURCES IN**  
22 **PREVIOUS IRPS?**

1 A: Yes. Starting in 2013 the Commission directed Georgia Power to acquire 525 MW of solar  
2 generation resources and in subsequent IRPs increased that to 1,600 MW of solar  
3 generation in 2016 and 2,210 MW of renewable energy in 2019.<sup>22</sup> The result has been  
4 widely recognized as a major success, ushering in a diversification of generation resources  
5 while lowering utility system costs and reducing total costs for customers. Certainly, there  
6 are differences between solar and DSM resources. Each has its strengths and limitations,  
7 but in the context of long-term resource planning, the fundamental economic benefit is the  
8 same. Both solar and DSM resources cost less than the Company's avoided cost for supply,  
9 thereby reducing total utility system costs for customers, while creating a more diverse  
10 resource mix that improves system resilience and offsets the need for more expensive  
11 traditional generation.

12

13 **Q: ARE THE EFFICIENCY SAVINGS LEVELS IN THE ADVOCATES CASE**  
14 **ACHIEVABLE?**

15 A: Yes, as noted above, the Company included a point of reference for the maximum  
16 achievable potential in its IRP filing (the Aggressive Case), which follows a similar pace  
17 of efficiency savings as the Advocates Case – each with roughly double the savings in  
18 Georgia Power's Base Case over the next three years.<sup>23</sup>

19

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<sup>22</sup> *Georgia Public Service Commission 2013 IRP Final Order*, Docket Nos. 36498 and 36499.

<sup>23</sup> *Georgia Power's 2022 Integrated Resource Plan*, Docket No. 44160, Main Document, Page 8-57 and 8-58.

1 **Q: HOW DO THE EFFICIENCY SAVINGS LEVELS IN THE BASE CASE AND**  
2 **ADVOCATES CASE COMPARE TO THE PERFORMANCE OF OTHER MAJOR**  
3 **INVESTOR OWNED UTILITIES?**

4 A: Georgia Power’s Base Case efficiency savings represent just 0.43% of its annual retail  
5 sales. For the vast majority of major investor-owned utilities annual efficiency performance  
6 is far higher. In 2020 the American Council for an Energy Efficient Economy (“ACEEE”)  
7 found that efficiency performance at the country’s largest electric utilities was 1.02% of  
8 annual retail sales. In ACEEE’s analysis, Georgia Power ranked number 40 out of 52  
9 utilities.<sup>24</sup> This is the most recent comprehensive comparison between major investor-  
10 owned utilities, but even more recent evidence shows that during the pandemic Georgia  
11 Power’s savings declined relative to the national average for all utilities. Increasing  
12 efficiency saving to the levels proposed in the Advocates Case would move Georgia Power  
13 closer to the average for major investor-owned utilities.

14  
15 **Q: WOULD APPROVAL OF THE ADVOCATES CASE REQUIRE GEORGIA**  
16 **POWER TO DEVELOP MANY NEW PROGRAMS TO ACHIEVE THE ANNUAL**  
17 **SAVINGS TARGETS?**

18 A: It would not. The Advocates Case expands the scale of spending and savings for Georgia  
19 Power’s existing portfolio of DSM programs, while adding in only one new program aimed  
20 at improving the efficiency of manufactured homes. This approach builds on Georgia  
21 Power’s existing program experience and should prevent implementation delays. If the

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<sup>24</sup> ACEEE 2020 Utility Scorecard, Page 26.

1 energy savings levels in the Advocates Case are approved, it would also be reasonable to  
2 allow Georgia Power to propose appropriate refinements to the level of savings for  
3 individual programs in each customer class, as long as the total savings levels would  
4 ultimately be achieved.

5  
6 **Q: WOULD THE ADVOCATES CASE RESULT IN A LOWER TOTAL UTILITY  
7 REVENUE REQUIREMENT THAN WHAT GEORGIA POWER HAS  
8 PROPOSED?**

9 A: As noted above, comparable levels of spending and savings<sup>25</sup> in Georgia Power's Capacity  
10 Expansion Plan worksheet show that customers could save roughly [REDACTED] with higher  
11 levels of efficiency in the Advocates Case compared to the Company's Base Case, which  
12 equates to an approximately [REDACTED] in the utility's total utility revenue requirement.<sup>26</sup>

13  
14 **Q: WHY ARE MANUFACTURED HOMES A PRIORITY FOR EXPANDING  
15 GEORGIA POWER'S RESIDENTIAL EFFICIENCY PORTFOLIO?**

16 A. Manufactured homes are a priority for a new efficiency program because Georgia Power's  
17 Base Case does not adequately address the needs of these types of homes. As a result, the  
18 manufactured housing stock in Georgia Power's service territory remains a significant  
19 source of untapped savings potential, while comparatively high energy bills are a problem

---

<sup>25</sup> The Advocates Case has comparable spending and savings as the Company's Aggressive Case, details for which can be found in the 2022 IRP DSM Case Summary Data MG0.xlsx.

<sup>26</sup> *Georgia Power's 2022 Integrated Resource Plan and Application for the Certification, De-certification, and Amended Demand-Side Management Plan*, Docket Nos. 44160 and 44161, Technical Appendix Volume 1, Resource Mix Study, Capacity Expansion Plans.xlsx, "SystemCosts" tab.

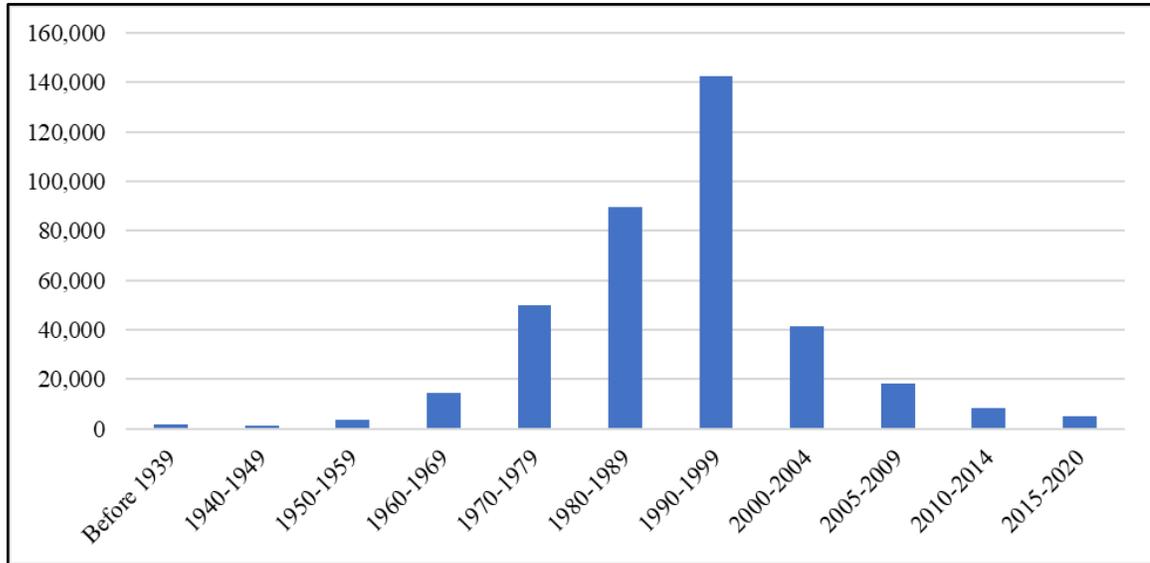
1           for residents. In short, households residing in manufactured homes should be a priority, not  
2           an afterthought. The State of Georgia has the fifth largest number of total manufactured  
3           homes in the country, about 367,000-380,000 housing units or approximately 8-9% of the  
4           state's residential housing stock is estimated to be manufactured homes.<sup>27</sup> An estimate of  
5           census tract data puts this number at roughly 5% of the housing stock in Georgia Power's  
6           service area specifically, or about 130,000-136,000 manufactured homes.<sup>28</sup> On top of that,  
7           the majority of manufactured homes in Georgia were built during a period of time when  
8           standards existed to ensure the longevity of factory-built homes (going back to 1976), but  
9           basic energy conservation standards were not put in place until 1994 (and updated in 2000).  
10          Thus, the manufactured housing stock in Georgia is long-lasting but extremely inefficient.

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<sup>27</sup> Source: U.S. Census Bureau, 2020: American Community Survey 5-Year Estimates Detailed Tables. See [Units in Structure, Table 25024](#).

<sup>28</sup> U.S. Census Bureau, American Community Survey 5-Year Estimates (2016-2020); Platts Electric Power Data, Electric Investor-Owned Utility Service Territories. (Aggregate of census tract with centroids or majority of land area falling within Georgia Power service territory).

1                   **Table 2. Distribution of Manufactured Home Units in Georgia by Year Built**<sup>29</sup>



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3  
4  
5  
6  
7  
8  
9  
10

While it is common for older homes to be less efficient, the degree to which this occurs in manufactured homes appears to be unique. Both energy consumption and energy expenditures per square foot are higher for mobile homes than any other residential housing unit type in the South.<sup>30</sup> For electricity usage in the census region that contains Georgia, residents of mobile homes use approximately 12.5 kWh per square foot based on annualized billing data, roughly 50% higher than single or multifamily homes.

<sup>29</sup> U.S. Census Bureau 2016-2020 ACS 5-year Public Use Microdata Samples (PUMS) Georgia Housing Unit Records. ACS data groups manufactured homes in the “mobile homes” category of unit structure type. <https://data.census.gov/mdat/#/search?ds=ACSPUMS5Y2020&cv=BLD&rv=YBL&nv=ucgid&wt=WGTP&g=0400000US13>

<sup>30</sup> U.S. Energy Information Administration (EIA), 2015 Residential Energy Consumption Survey: Energy Consumption and Expenditure Tables. (Table CE1.4 Summary annual household site consumption and expenditures in the South—totals and intensities, 2015: [www.eia.gov/consumption/residential/data/2015/c&e/pdf/ce1.4.pdf](http://www.eia.gov/consumption/residential/data/2015/c&e/pdf/ce1.4.pdf)).

1           **Table 3. Electricity Usage by Housing Unit Type for South Atlantic Census region<sup>31</sup>**

Housing Unit Type	KWh (Annual)	KWh (Per sq. ft)
Mobile Home	13,879	12.5
Single-family detached	15,759	7.4
Single-family attached	10,559	7.4
Multifamily 2-4 Units	7,852	8.5
Multifamily 5+ Units	8,100	8.7

2

3   **Q:   WHY ARE THERE TWO COMPONENTS TO THE MANUFACTURED**  
4   **HOUSING RETROFIT AND REPLACEMENT PROGRAM?**

5   A:   Older manufactured homes may benefit from retrofit upgrades and replacement of outdated  
6       equipment, but in some cases, it makes more sense to replace aged units entirely rather than  
7       putting mere bandages on a bigger problem. For this reason, the program was conceived to  
8       serve customers in both sets of circumstances in the way that makes the best sense given  
9       the situation on the ground. Georgia Power has expressed concern with its ability to deploy  
10      the replacement portion of this program. While every effort should be taken to make the  
11      program accessible to customers for whom replacement makes the most sense, the program  
12      was intentionally designed to allow flexibility in program delivery. If Georgia Power does  
13      not offer or limits the scope of the manufactured home replacement offering, it should still  
14      fully implement the program – albeit with a greater emphasis on manufactured home

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<sup>31</sup> U.S. Energy Information Administration, 2015 Residential Energy Consumption Survey Microdata, Released December 2018. <https://www.eia.gov/consumption/residential/data/2015/index.php?view=microdata>

1 retrofits. The same budget and savings could still apply, even if they are shifted away from  
2 the replacement strategy and towards increased retrofits.

3

4 **Q: IS THE MANUFACTURED HOUSING PROGRAM IN THE ADVOCATES CASE**  
5 **COST EFFECTIVE?**

6 A. Yes, Georgia Power representative Jeffrey Smith confirmed this during his testimony  
7 before the Commission April 5, 2022, noting that its TRC score was in the range of 1.6 or  
8 1.8.<sup>32</sup>

9

10 **Q: ARE THERE ANY OTHER POTENTIAL BENEFITS OF EE PROGRAMS FOR**  
11 **MANUFACTURED HOMEOWNERS NOT REPORTED OR TRACKED BY**  
12 **UTILITIES?**

13 A: There are. Other benefits may include increased health, safety, and quality of life due to  
14 lower bills and a more comfortable home. Manufactured homeowners experience the  
15 highest rates of energy insecurity relative to any other housing type. When surveyed about  
16 the different ways households experience energy insecurity, rates were 2-3 times higher  
17 for mobile home residents than household types typically targeted by DSM programs, such  
18 as single-family homes and larger multifamily apartment buildings.

19

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<sup>32</sup> During his testimony on April 5, 2022, Georgia Power witness Jeffrey Smith states, “For TRC and, subject to check, I want to say it’s around 1.6 or 1.8 [subject to check] on TRC” (Tr. 764).

1 **Table 4. Household Energy Insecurity by Housing Unit Type, 2020<sup>33</sup>**

Energy Insecurity Type	Single-Family		Multi-Family		Mobile
	Attached	Detached	2-4 Units	5+ Units	All
Any Insecurity	22.2%	28.2%	44.9%	30.6%	47.0%
Reducing food/medicine	15.5%	21.1%	35.5%	23.1%	36.7%
Home at Unhealthy Temp	7.6%	10.7%	17.2%	12.0%	16.8%
Disconnect Notice	8.2%	10.2%	16.6%	9.9%	21.2%
<b>Total U.S. Homes (Millions)</b>	<b>77.1</b>	<b>7.5</b>	<b>9.3</b>	<b>22.9</b>	<b>6.8</b>

2  
 3 A weighted-average shows that households living in mobile homes in Georgia earn roughly  
 4 \$44,000, or about half of what residents of single-family housing units make.<sup>34</sup>  
 5 Furthermore, the average for most household sizes in manufactured homes is at or below  
 6 200% of federal poverty guidelines.<sup>35</sup> Therefore, energy efficiency programs have the  
 7 potential to provide outside benefits to manufactured homeowners.

8  
 9 **Q: DOES GEORGIA POWER HAVE THE ABILITY TO ANALYZE DSM**  
 10 **RESOURCES COMPETITIVELY AGAINST SUPPLY RESOURCES?**

<sup>33</sup> U.S. Energy Information Administration, 2020 Residential Energy Consumption Survey. Table HC11.1, Household Energy Insecurity, 2020: <https://www.eia.gov/consumption/residential/data/2020/hc/pdf/HC%2011.1.pdf>

<sup>34</sup> U.S. Census Bureau American Community Survey (“ACS”) 5-Year Estimates Public Use Microdata Sample (“PUMS”), Average of Household Income (past 12 month, for nonvacant household that reported no income loss), Available at: [https://data.census.gov/mdat/#/search?ds=ACSPUMS5Y2020&vv=\\*HINCP\(0,1:99999999\)&rv=BLD&nv=ucgid&wt=WGTP&g=0400000US13](https://data.census.gov/mdat/#/search?ds=ACSPUMS5Y2020&vv=*HINCP(0,1:99999999)&rv=BLD&nv=ucgid&wt=WGTP&g=0400000US13)

<sup>35</sup> U.S. Census Bureau ACS 5-Year Estimates PUMS, Average of Household Income (past 12 month, for nonvacant household that reported no income loss) by Units in Structure & Number of Persons Associated with Housing Record., Available at: <https://data.census.gov/cedsci/>. [Full Link](#) to dataset.

1 A: It does. The Commission's *2019 IRP Final Order* included a Stipulation that Georgia  
2 Power would investigate methodologies to optimize DSM alongside traditional supply-side  
3 options prior to filing its 2022 IRP. With the same Aurora modeling software used in the  
4 2022 IRP, Georgia Power competitively analyzed DSM resources against supply-side  
5 alternatives and filed the results with the Commission on April 30th, 2021, in the DSM  
6 White Paper. This analysis is different from previous approaches used by the company in  
7 its TEAPOT Study in that it had DSM and supply-side resources compete head-to-head  
8 and directly showed that higher levels of energy efficiency result in the least-cost utility  
9 resource plan.

10

11 **Q: SHOULD GEORGIA POWER ANALYZE DSM RESOURCES COMPETITIVELY**  
12 **AGAINST SUPPLY-SIDE RESOURCES IN FUTURE IRPS?**

13 A: Yes. The Company's modeling input assumptions were updated for its 2022 IRP filing, so  
14 the outputs of the white paper cannot be directly applied to 2022 IRP. However, using its  
15 current IRP modeling tools the Company was able to demonstrate that in a head-to-head  
16 matchup with supply-side resources, higher levels of DSM resources produced the least-  
17 cost plan suggests. This suggests that future IRPs should be informed by similar analyses.  
18 In the 2022 IRP, Georgia Power not only failed to competitively optimize DSM against  
19 supply-side resources, the Company did not even consider increasing efficiency savings  
20 levels to address any of its future resources needs (i.e. load growth, power plant  
21 retirements, seasonal peaks, and reliability issues). A resource plan is not truly optimized

1 if one of the least-cost, most abundant resources (DSM) is not even considered when  
2 evaluating how to meet future resource needs.

3 Georgia Power now uses IRP modeling software that is able to compare DSM and supply-  
4 side resources simultaneously. Utilizing that capability should become standard practice in  
5 future IRP cycles in order to improve information and decision making, a point that is  
6 affirmed by SACE/Southface expert witnesses Ronald J. Binz and Dr. Marylin Brown.  
7 Leading up to the next IRP cycle, the DSMWG should have an active role in working with  
8 Georgia Power to formulate workable strategies for modeling DSM in the next IRP, with  
9 a special focus on overcoming the kinds of challenges the Company stated it encountered  
10 in developing the DSM White Paper.

11  
12 **Q: CAN GEORGIA POWER LEARN FROM THE SUCCESSFUL EXPERIENCE OF**  
13 **OTHER UTILITIES AND OVERCOME THE TECHNICAL CHALLENGES**  
14 **ASSOCIATED WITH COMPETITIVE MODELING ANALYSIS OF DSM IN ITS**  
15 **IRP MODELING SOFTWARE?**

16 **A:** Many utilities have been competitively evaluating DSM in IRP optimization analysis for a  
17 decade or more. For example, Entergy New Orleans, which also uses Aurora modeling  
18 software, performs competitive DSM analysis. Others I'm aware of include the Northwest  
19 Power and Conservation Council, Pacific Gas & Electric, PacifiCorp, and the Tennessee  
20 Valley Authority. The Company has stated that it is challenging to conduct such analysis.<sup>36</sup>

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<sup>36</sup> *Entergy New Orleans, LLC's 2018 Integrated Resource Plan*, Docket No. UD-17-03.

1 Georgia Power witnesses Andy Phillips and Francisco Valle described these challenges  
2 before the Commission during their testimony on April 5, 2022:

3 Andy Phillips: I think specifically we said that it was technically possible. I  
4 don't recall that we concluded that it was well-suited. We did show that it is  
5 technically possible to model demand-side resources in a supply side  
6 system. But along with that, there were certain adjustments and  
7 workarounds that required that, that are not required in our current  
8 methodology. And so that led the company to conclude that, with the  
9 limitations and challenges of modeling demand-side resources in a supply  
10 side system, the current methodology that has guided development of our  
11 proposed cases for a number of years is the most appropriate way for  
12 modeling and evaluating demand-side resources.

13 Francisco Valle: And Commissioner, that is an important point because  
14 with the White Paper we did the exploration that was required. But given  
15 the sophistication of the tool in order to prepare the inputs and properly  
16 model this (sic) DSM programs in the system alongside with supply  
17 sources, you have to do a lot of grouping, a lot of bundling, and it's a  
18 complex process. So while it's doable, I want to make you aware of the  
19 complexities of adding this extra step within our planning approach (Tr.  
20 645-656).

21 Analyzing DSM as a competitive resource is challenging, but this is not unique to DSM.  
22 Most of the analysis in integrated resource planning is complex and has become

1 increasingly complicated over time, as previous deficiencies in modeling capabilities are  
2 regularly improved upon. For instance, new technologies and changes in how utility grids  
3 are operated have added new complexity of IRP analysis. Yet modeling intermittent  
4 renewable energy resources like wind and solar has become a common feature of integrated  
5 resource planning; adaptations are being made now to incorporate the many capabilities of  
6 battery technologies; and the intersection between capacity resource planning and  
7 transmission planning are also taking on greater importance.

8 Competitive DSM analysis has its own unique complexities that require time and effort to  
9 develop in order to run effective modeling. But the value of the information it yields more  
10 than justifies the effort. Without it, deficiencies in Georgia Power's current IRP practices  
11 have prevented true integration of DSM resources and resulted in the Company proposing  
12 a resource plan that is not the least-cost option. Fortunately, the modeling software Georgia  
13 Power is now using has all of the analytic capabilities needed to competitively analyze  
14 DSM alongside supply resources and, following its work on the DSM White Paper,  
15 Georgia Power already has experience and insights to inform such analysis in the future.

16  
17 **Q: ARE YOU RECOMMENDING THAT GEORGIA POWER DO AWAY WITH THE**  
18 **DSM PROGRAM PLANNING APPROACH?**

19 **A:** I am not. While adding competitive analysis of DSM resources will provide invaluable  
20 information for integrating DSM resources in future IRP resource portfolios, the DSM  
21 Program Planning Approach is a familiar and valuable process that should still be  
22 maintained, though there may be opportunities to improve on it going forward. For

1 instance, the DSM Program Planning Approach provides structure to stakeholder  
2 engagement efforts in the DSM Working Group leading up to Georgia Power filing its  
3 triennial IRP. Moreover, many of the primary outputs of the DSM Program Planning  
4 Approach also yield essential data that is required as inputs for competitive analysis, such  
5 as DSM measure and program cost and performance data, and market adoption curves.

6 I recommend that the Commission direct Georgia Power to include both the DSM Program  
7 Planning Approach outputs and the results of competitive DSM modeling analysis in  
8 Aurora in the next IRP cycle. Both sets of information can be used to inform decision  
9 making around DSM savings levels, and both should continue to be active components of  
10 engagement at the DSMGW. However, the Company ultimately uses this information,  
11 Georgia Power should be directed to integrate DSM by actually factoring in its future  
12 resource needs when setting DSM savings levels in its proposed Base Case.

13  
14 **Q: WHAT CHANGES DOES GEORGIA POWER SEEK REGARDING THE DSM**  
15 **ADDITIONAL SUM?**

16 **A:** Georgia Power is seeking to fundamentally change the basis on which its energy efficiency  
17 performance incentive is calculated by moving away from the existing DSM Additional  
18 Sum methodology, which compensates the Company for the financial value its programs  
19 deliver to customers, to one that automatically compensates the Company for each kWh  
20 reduction regardless of customer benefit. Specifically, the Company is seeking \$0.04/kWh  
21 of first year gross energy savings up to 120% of its required savings target and \$0.05/kWh

1 for each additional kWh saved above that mark.<sup>37</sup> In another departure from current  
2 practice, Georgia Power is proposing to calculate kilowatts based on gross savings, rather  
3 than net.

4 The only apparent difference in the Additional Sum changes Georgia Power is proposing  
5 now, compared to those it proposed in 2019, is that this time the Company eliminated a  
6 feature that would have reduced the amount of compensation it received to \$0.02/kWh if  
7 it failed to deliver at least 50% of the Commission required annual efficiency savings  
8 target. The sole beneficiary of these proposed changes is Georgia Power, not its customers.  
9 Moreover, the change would actually increase costs for customers from \$10 million a year  
10 to \$17 million, without actually increasing efficiency savings. For this and other reasons  
11 described below, Georgia Power's Additional Sum proposal should be rejected.  
12 Importantly, the DSM Additional Sum changes Georgia Power sought in the 2019 IRP,  
13 which are nearly identical to the changes it has again proposed, were ultimately rejected  
14 by the Commission in its final order.<sup>38</sup>

15  
16 **Q: ARE THERE POTENTIAL UNINTENDED CONSEQUENCES OF GEORGIA**  
17 **POWER'S PROPOSAL TO BE COMPENSATED BASED ON FIRST YEAR'S**  
18 **SAVINGS AND BASE THE DSM ADDITIONAL SUM CALCULATION ON**  
19 **GROSS SAVINGS?**

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<sup>37</sup> Georgia Power's 2022 Application for the Certification, Decertification, and Amended Demand-Side Management Plan (Docket No. 44160), Page 5.

<sup>38</sup> Georgia Public Service Commission 2019 Order Adopting Stipulations as Amended, Demand-Side Plan No. 15, Page 10.

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A: There are serious potential consequences from Georgia Power’s proposed changes to the Additional Sum that will negatively affect future DSM program performance and ultimately harm customers.

First, rather than count the financial value to customers over the life of the efficiency measures installed, Georgia Power is seeking a large payout for kWh savings in the first year. This creates a perverse incentive for the company to shift its programs away from efficiency measures that yield deep, persistent savings over many years (such as insulation and high efficiency air conditioners) to measures with short-term benefits that do not persist (like behavioral efficiency programs) and require constant reinvestment year after year. GPSC Public Interest Advocacy (“PIA”) staff identified this problem in their 2019 direct testimony before the Commission.<sup>39</sup>

Second, by attempting to shift from net to gross savings, Georgia Power is seeking to remove adjustments that provide accountability to ensure the savings it claims actually resulted from efficiency measures attributable to the Company’s efficiency programs, meaning they would not have been installed otherwise. This, too, removes a critical incentive for Georgia Power to design and offer programs that actually drive new efficiency improvements. The current incentive structure protects against the Company claiming unearned efficiency savings and performance, while the Company’s proposal does not.

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<sup>39</sup> Direct Testimony of Jamie Barber, Richard F. Spellman, John L. Kaduk, and John G. Athas, before the Georgia Public Service Commission on April 25, 2019, Page 32.

1 **Q: IS GEORGIA POWER’S PROPOSED METHOD IN LINE WITH ESTABLISHED**  
2 **PRACTICE AT OTHER UTILITIES?**

3 A: No. GPSC PIA staff compared Georgia Power’s proposed method to energy incentive  
4 mechanisms in other states during their 2019 direct testimony before the Commission.<sup>40</sup>  
5 Their conclusions align with my response to the previous question, and they also provide  
6 a detailed explanation of discrepancies between Georgia Power’s proposed methodology  
7 and examples from other states and utilities. In addition to the fact that several states do  
8 not allow shareholder incentives, GPSC PIA staff in 2019 explain incentive mechanisms  
9 in Arizona, Connecticut, Michigan, and Ohio. Using data from Georgia Power, GPSC PIA  
10 staff then calculated the additional sum based on each states’ respective methodology. They  
11 find, for example, that (i) the Company’s DSM additional sum would have been \$8.2  
12 million using the method in Connecticut, compared to the \$45 million proposed by Georgia  
13 Power in 2019; (ii) No Additional Sum is paid in Michigan unless a utility reaches 115%  
14 of the target annual kWh savings goal; and (iii) Utilities in Ohio receive 7.5% of the net  
15 benefits if 100% for the target savings goal is met; the Company’s current additional sum  
16 methodology is already a percentage point higher, at 8.5%.<sup>41</sup> To conclude their summary  
17 of DSM incentive mechanisms GPSC PIA staff stated in 2019 that:

18 The key finding from our analysis of incentive mechanisms is that numerous  
19 other states have less costly incentive mechanisms that achieve actual kWh  
20 and kW savings far higher, as a percent of annual retail kWh sales, than the

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<sup>40</sup> *Id.*, Pages 34-35.

<sup>41</sup> *Id.*, Page 35.

1 percentage reduction projected by the Company in this case for the 2020 to  
2 2022 time period.<sup>42</sup>

3 The same argument holds true for Georgia Power's proposed changes to the DSM  
4 additional sum in its 2022 IRP and DSM filings. These findings, and those  
5 presented in my testimony above, support a continuation of the current DSM  
6 Additional Sum. I, therefore, strongly recommend that the Commission reject the  
7 Company's proposed change to the DSM Additional Sum methodology.

8

9 **Q: DO YOU GENERALLY OPPOSE PERFORMANCE INCENTIVES FOR UTILITY**  
10 **ENERGY EFFICIENCY PROGRAMS?**

11 A: Absolutely not. DSM resources provide considerable financial value to customers and the  
12 utility system as a whole. By providing a business value proposition for increasing  
13 efficiency investments, utility performance incentives aim to align utility company  
14 interests with those of customers. They are also intended to provide an earnings mechanism  
15 for the Company's investments in DSM resources, like it is able to make from supply-side  
16 resource investments. Whether adjustments to the Additional Sum mechanism could lead  
17 to better outcomes is worth considering, and indeed SACE offered suggested changes in  
18 the 2019 IRP.<sup>43</sup> However, changes made to the performance incentive mechanism must  
19 attempt to avoid predictable unintended consequences like those described above.

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<sup>42</sup> *Id.*, Page 34.

<sup>43</sup> Direct Testimony of John Wilson and Bryan Jacob before the Georgia Public Service Commission on April 25, 2019, *Georgia Power's 2019 Integrated Resource Plan and Demand-Side Management Plan*, Docket Nos. 42310 and 42311.

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Instead of merely increasing corporate earnings from efficiency, primary consideration for possible future changes to the Additional Sum should first be given to the public interest impact of such changes. A better approach to making such changes in the future would be for Georgia Power to work with the DSM Working Group to collaborate and thoroughly vet potential changes prior to submission in a future IRP cycle.

**Q: DID GEORGIA POWER ACHIEVE THE LEVEL OF EFFICIENCY SAVINGS REQUIRED BY THE GEORGIA PUBLIC SERVICE COMMISSION IN THE 2019 IRP?**

A: Unfortunately, it did not. In 2020, Georgia Power achieved only 56% of its Commission ordered savings levels, while in 2021 the Company’s savings were 70% of target.<sup>44</sup>

**Q: DID GEORGIA POWER ARGUE AGAINST MAKING UP FOR SAVINGS DEFICITS IN FUTURE YEARS?**

A: Yes, it did. In meetings with the DSMWG, the Company stated that it felt existing regulatory practices for cost recovery of its DSM program budgets would not allow it to shift dollars from one year to another. It was also the Company’s opinion that it could not be held to making up efficiency savings performance deficits in subsequent years.

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<sup>44</sup> *Georgia Power’s Certified Demand-Side Management Programs, Fourth Quarter 2020 Programs Status Report*, Docket No. 42311.

*Georgia Power’s Certified Demand-Side Management Programs, Fourth Quarter 2021 Programs Status Report*, Docket No. 42311.

1           Ultimately, this means that despite a Commission Order in the 2019 IRP requiring Georgia  
2           Power to increase its total efficiency savings by 15% above the Company's proposed Base  
3           Case, in 2020 and 2021 its savings actually declined from previous years. The Company's  
4           arguments against pursuing additional savings in future years to make up for the deficits  
5           2020 and 2021 raise serious questions about what it means to set triennial targets in these  
6           IRP cycles and point to the need for Commission action to ensure utility compliance  
7           expectations are clear. It also suggests that related policies must be reviewed and possibly  
8           changed to ensure they are flexible enough to functionally operate across a range of  
9           possible circumstances.

10  
11   **Q:    SHOULD GEORGIA POWER'S UNDERPERFORMANCE WITH REGARD TO**  
12   **EFFICIENCY SAVINGS TARGETS SET IN THE 2019 IRP SUGGEST THAT THE**  
13   **TARGETS SHOULD BE LOWERED?**

14   **A:**   No, efficiency savings targets should be set based on future resource needs and optimized  
15       portfolio analysis, leading up to the Commission's ultimate determination of what is in the  
16       best interest of customers. Lowering efficiency savings levels based on underperformance  
17       creates an incentive for the Company to underperform.

18       Notably, unrelated to the pandemic Georgia Power made a decision following the 2019  
19       IRP to take administration of more of its efficiency programs in-house, rather than hire  
20       companies with specialized capabilities and experience to deliver the programs. If Georgia  
21       Power is concerned about its ability to effectively administer its efficiency savings

1 programs and reach the Commission ordered targets, it should once again consider working  
2 with companies who specialize in this work.

3  
4 **Q: WHAT DO YOU RECOMMEND?**

5 A: At the heart of this issue is whether Georgia Power can and must comply with Commission  
6 orders related to DSM savings targets in IRP proceedings. I recommend that the  
7 Commission first take action to resolve the issue of Georgia Power's ability to carry  
8 forward its DSM program budgets from one year to the next if the Company falls short of  
9 its mandated annual efficiency savings target. I additionally recommend that the  
10 Commission specify that the Company is required to deliver the total required kWh savings  
11 in its IRP order. With this requirement, I believe it would be reasonable to allow a moderate  
12 degree of discretionary flexibility for the company to shift its savings from one year to  
13 another in order to make adjustments in program delivery, so long as it attains the total  
14 required level of savings. Larger shifts between years would only be allowed in response  
15 to extraordinary circumstances outside the control of the Company, which would require  
16 formal explanation and approval by Commission Staff. These suggested changes would  
17 strengthen the Company's ability to achieve its efficiency savings targets, while making  
18 clear it has a regulatory compliance obligation to deliver the level of savings the  
19 Commission has ordered.

20  
21 **Q: DOES THIS CONCLUDE YOUR TESTIMONY?**

22 A: Yes.