Education and Work Experience for Jamie Barber

Education

University of West Georgia
Master of Business Administration-Finance
August 2009
West Georgia College
Bachelor of Business Administration—Accounting
August 1991

Experience

Georgia Public Service Commission

Director, Energy Efficiency and Renewable Energy Unit 6/20 To Present

- Responsible for the oversight of the EERE Unit.
- Provide oversight and policy recommendations for issues related to Energy Efficiency and Renewable Energy.
- Provide Commission Oversight for the implementation of Georgia Power Company's Customer Renewable Supply Procurement (CRSP) Program.
- Facilitator of the Demand Side Management Working Group.
- Responsible for maintaining awareness of Marginal Rate Offerings of Georgia Power Company.
- Review of Proxy Qualifying Facilities Contracts with Georgia Power.
- Review of Renewable Requests for Proposals and Pro Forma Power Purchase Agreements.
- Responsible for maintaining awareness of the status of Georgia Power providing online customer access to usage data.
- Responds to inquiries relating to net metering, distributed generation, energy efficiency programs, and other related matters.
- Review of Georgia Power Company's Prepay Tariff and implementation of program.

Manager Energy Efficiency and Renewable Energy Group 10/13 To 6/20

ARRA Manager-Internal Consultants, Utilities Division 1/10 To 9/13

- Responsible for the oversight of the group within the Internal Consultants Section.
- Project Leader for issues related to Energy Efficiency and Renewable Energy.
- Project Leader for the implementation of Georgia Power Company's Large Scale Solar Offering, Advanced Solar Initiative and Advanced Solar Initiative Prime Programs.
- Project Leader for the Certification of 250 megawatts of wind resources.
- Facilitator of the Demand Side Management Working Group.
- Responsible for maintaining awareness of Marginal Rate Offerings of Georgia Power Company.
- Review of Proxy Qualifying Facilities Contracts with Georgia Power.
- Review of Renewable Requests for Proposals and Pro Forma Power Purchase Agreements.
- Responsible for the Commission oversight of the Automated Meter Infrastructure (AMI) Implementation for Georgia Power and addressing customer inquiries related to the safety of AMI meters.
- Responsible for maintaining awareness of Georgia Power's smart grid upgrades to its distribution and transmission system.
- Responsible for maintaining awareness of the status of Georgia Power providing online customer access to usage data.
- Responds to inquiries relating to net metering, distributed generation, AMI, energy efficiency programs, smart grid, and other related matters.
- Review of Georgia Power Company's Prepay Tariff and implementation of program.

Georgia Public Service Commission 10/98 To 1/2010

Utilities Analyst-Natural Gas Section, Utilities Division

- Responsible for maintaining awareness of Base Rates and Rules and Regulations for Atlanta Gas Light Company and Atmos Energy Corporation.
- Review of Negotiated Contracts of Atmos Energy Corporation.
- Maintains Commission contact of assigned certificated marketers.
- Responds to inquiries about Natural Gas Deregulation and other Atlanta Gas Light Billing issues.
- Review the Dedicated Design Day Capacity allocation and Recalculation used by Atlanta Gas Light Company.
- Review of Performance-Based Regulation program of Atmos Energy Corporation.
- Filed and presented testimony regarding Atlanta Gas Light Company's Purchased Gas Costs and Revenues.
- Responsible for the auditing of Purchased Gas Costs of Atlanta Gas Light Company.
- Filed and presented testimony on rate design in Atlanta Gas Light Company Earning's case.
- Project Leader for the auditing of the Pipeline Replacement Program for Atmos Energy for compliance with Commission Order.
- Project Leader for the auditing of Sequent Energy Management.
- Responsible for tracking compliance with the Marketer Service Quality Standards.
- Project leader for Atmos Energy Gas Supply Plan.

Georgia Public Service Commission 10/97 To 10/98

Utilities Analyst Trainee-Gas Section, Utilities Division

- Performed detailed rate analysis that was used in determining base rates for Atlanta Gas Light Company.
- Filed and presented testimony in the United Cities Gas Company's 1998-99 Gas Supply Plan.
- Reviewed marketer applications for certification for financial competence.
- Reviewed proposed changes to rate schedules and terms of service of Atlanta Gas Light Company and United Cities Gas Company.
- Reviewed monthly filings of United Cities Gas Company's Performance-Based Ratemaking Plan.

Georgia Public Service Commission 11/96 To 10/97

Utilities Analyst Trainee-Electric Section, Utilities Division

- Project Manager for a series of Electric Restructuring Workshops.
- Reviewed and prepared sections of the Staff Report related to the Electric Restructuring Workshops.
- Reviewed filed proposed changes to rate schedules and terms of service of Georgia Power Company (GPC) and Savannah Electric Company (SEPCO).

Georgia Public Service Commission 11/94 To 11/96

Accountant-Electric Section, Utilities Division

- Tracked fuel recovery position of Georgia Power Company.
- Reviewed Special Contracts of Georgia Power Company.
- Tracked coal and other fuel prices.
- Participated in IRP review and hearings of GPC and SEPCO.
- Monitored the construction status of combustion turbines for additional capacity needs of GPC and SEPCO.

Georgia Public Service Commission 11/93 To 11/94

Accounting Technician-Administrative Division

- Responsible for proper classification of Commission expenses.
- Responsible for accounts payable.
- Reviewed Staff Travel Expense Reports.
- Maintained Commission Computer and Vehicle Inventory.

Timothy S. Cook
Professional Experience and Educational Background

Mr. Cook graduated from Cornell University in 2014 with a Bachelor of Science degree in Mechanical Engineering. He received a Master of Science degree, in 2018, in Aerospace Engineering from the Georgia Institute of Technology. In 2018, he was hired as a Utilities Engineer in the Internal Consultants Unit as part of the Energy Efficiency and Renewable Energy subgroup. During Mr. Cook's time at the Commission, he has testified in Docket No. 42625, Georgia Power Company's Application for the Certification of the 2020/2021 REDI Utility Scale Power Purchase Agreements, Docket Nos. 4822, 16573 and 19279 as part of Georgia Power Company's Avoided Cost Review, and Docket No. 43814 Georgia Power Company's Application for the Certification of the 2022/2023 Utility Scale Renewable Power Purchase Agreements. Additionally, he has participated in the 2019 Integrated Resource Plan and Rate Case, Docket Nos. 42310 and 42516, as well as the Renewable Energy Development Initiative Request for Proposals for Distributed Generation, Docket No. 41864, and 2020 Distributed Generation Request for Proposals, Docket No. 43085.

Staff Exhibit _(BCB-3)

DAYMARK ENERGY ADVISORS

Jeffrey D. Bower

Managing Consultant

Jeff advises infrastructure developers, utilities, and regulators pursuing commercial opportunities and policies to develop and deploy renewable energy resources and enabling transmission projects. He has broad experience in integrated resource planning, power market modeling, and the integration of offshore wind, land-based renewable energy, and transmission into RTO/ISO markets. His work includes economic and operational cost-benefit analysis and assessments of strategies to meet utility and state decarbonization goals. Jeff has testified before FERC and before state regulatory agencies in Arkansas, Georgia, and Maine.

INDUSTRY EXPERIENCE

Daymark Energy Advisors | www.daymarkea.com | Worcester, MA

Daymark Energy Advisors is a consultancy that bring deep knowledge of energy infrastructure, regulation, and markets to help our clients make well-informed business, capital investment, and policy decisions in the face of uncertainty.

Managing Consultant | 2022-Present
Senior Consultant | 2017–2022
Consultant | 2013–2017
Analyst | 2010–2013

Consulting practice includes:

- Power market modeling and price forecasting
- Power project financial pro-forma modeling and risk analysis
- Economic benefits analyses for generation and transmission infrastructure projects
- Energy policy analysis
- Integrated resource plan evaluation
- Competitive market design advisory services
- Potential assessment of renewable energy and energy efficiency resources
- Expert witness testimony

Climate Change Policy Partnership at Duke University | Durham, NC

Transportation Research Assistant | 2009–2010

- Transportation system modeling
- Clean transportation policy analysis

North Carolina Sustainable Energy Association | www.energync.org/ | Durham, NC

Wind Power Research Analyst Intern | 2009

- Developed a comprehensive guide to community wind power development

TESTIMONY & PUBLICATIONS

Expert Testimony

FORUM	ON BEHALF OF	MATTER
Georgia Public Service Commission	Georgia PSC Public Interest Advocacy Staff	Capacity and Energy Payments to Cogenerators Under PURPA. Docket Nos. 4822, 16573, 19279.
Arkansas Public Service Commission	Arkansas PSC General Staff	Petition of Entergy Arkansas, LLC for Approval of a Build-Own-Transfer Arrangement for a Solar Facility. Docket No. 20-067-U.
Arkansas Public Service Commission	Arkansas PSC General Staff	Petition of Entergy Arkansas, LLC for Approval of a Build-Own-Transfer Arrangement for a Solar Facility. Docket No. 20-052-U.
Arkansas Public Service Commission	Arkansas PSC General Staff	Application of Southwestern Electric Power Company for Approval to Acquire Wind Generating Facilities. Docket No. 19-035-U.
Arkansas Public Service Commission	Arkansas PSC General Staff	Petition of Entergy Arkansas, LLC for Approval of a Build-Own-Transfer Arrangement for a Solar Facility. Docket No. 19-019-U.
Maine Public Utilities Commission	Central Maine Power Company	Application for Certificate of Convenience and Public Necessity (CPCN) for the New England Clean Energy Connect. Provided analysis of economic benefits of HVDC transmission project. Docket No. 2017-00232.
FERC	New York Utility Intervention Unit	FERC Notice of Proposed Rulemaking (NOPR): Offer Caps in Markets Operated by Regional Transmission Organizations and Independent System Operators. Submitted comments addressing the adverse efficiency impact of setting the offer cap too high and of maintaining different caps in adjacent regions. No. RM16-5-000. April 2016.

Publications

- *Memorandum of Wyoming Public Utilities Commission Staff*, report summarizing evaluation and findings related to PacifiCorp (d/b/a Rocky Mountain Power) 2019 Integrated Resource Plan and associated Coal Retirement Study (Docket No. 90000-144-XI-19 and Docket No. 90000-147-XI-19), July 6, 2020. Contributing Author.
- *MCPC Project Benefits; Quantitative and Qualitative Benefits,* confidential report prepared for Central Maine Power regarding the benefits of the Maine Clean Power Connection, a 345-kV transmission expansion accompanied by 1,100 MW of wind energy project development offered in the Massachusetts RFP for Clean Energy Resources, July 27, 2017. Contributing Author.
- *NECEC Project Benefits; Quantitative and Qualitative Benefits,* confidential report prepared for Central Maine Power and H.Q. Energy Services regarding the benefits of the New England Clean Energy Connection, 1,200 MW HVDC transmission expansion accompanied by 1,090 MW of hydropower and wind energy project development offered in the Massachusetts RFP for Clean Energy Resources, July 27, 2017. Contributing Author.

- *Evolving Practices in Electric Company Resource Planning: Key Insights from a Review of 15 Recent Electric Company Resource Plans,* report prepared for the Electric Power Research Institute. May 2017. Contributing Author.
- *MREI Project Benefits; Direct, Indirect, Qualitative and Other Benefits,* prepared for Central Maine Power Company and Emera Maine regarding the benefits of the Maine Renewable Energy Initiative, a 345-kV transmission expansion accompanied by 1,200 MW of wind energy project development, January 28, 2016. Contributing Author.
- *MCPC Project Benefits; Direct, Indirect, Qualitative and Other Benefits",* prepared for Central Maine Power Company regarding the benefits of the Maine Clean Power Connection, a 345-kV transmission expansion accompanied by nearly 600 MW of wind energy project development, January 28, 2016. Contributing Author.

EDUCATION

Master of Environmental Management | Nicholas School of the Environment at Duke University, Durham, NC | 2010

Certificate in Geospatial Analysis | Duke University, Durham, NC | 2010

B.A. Sociology | Tufts University, Medford, MA | 2004

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-37

Question:

Refer to Technical Appendix, Volume 2, Renewable Cost-Benefit Framework, pg. 3, stating that "the Company is removing the Generation Remix category." Please provide a detailed description and rationale as to why the Company has decided to eliminate this component.

Response:

Generation Remix represented the impact that a large penetration of renewable resources would have on both system commitment and dispatch, as well as the expected future generation expansion plan build-out of the system associated with the addition of a renewable resource. This component was appropriate in the past since incremental renewable resources were not included in previous IRP Resource Mix Studies. The 2022 IRP Resource Mix Study includes incremental renewable resources, which results in the bulk impacts of future renewable resources being fairly represented in the IRP cases. As such, it is appropriate to evaluate renewable resources consistent with other resource types and remove the Generation Remix category.

Contact: Jeff Grubb

Docket Nos. 40161 & 40162
Georgia Power Company's 2016 IRP and 2016 DSM Application
STF Data Request Set Number 7

STF-7-40

Question:

Did the Company consider including the value of voluntary RECs in the Framework? If so, why were they not included?

Response:

Yes, the Company did consider including the value of voluntary RECs in the Framework. However, as noted on page 25 of the Framework, the Company did not include any value for Renewable Energy Credits ("RECs"). Because the Company is not required to meet a specified Renewable Portfolio Standard ("RPS"), there are no REC costs to be avoided when calculating the cost and benefits of renewables. The Company also considered the potential value of selling those RECs. Until and to the extent a non-RPS related market may develop in Georgia, reliance on such a market for the "benefit" of those RECs would be unreliable and speculative at best. Likewise, speculating upon the possible future existence of an RPS related market for the benefit of those RECs would be inappropriate at this time.

Contact: Alison Chiock

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-39

Question:

Refer to Technical Appendix, Volume 2, Renewable Cost-Benefit Framework, p. 7, stating that "Considering the appropriate ICE or ELCC, Deferred Generation Capacity Costs is reflected as a benefit in the RCB Framework." Is the Company proposing to use ELCC for future RCB Framework applications or continue to use the CWFT/ICE method?

Response:

Currently, the Company is using the CWFT/ICE method for RCB calculations. The Company will consider the results of the ELCC Study, any advantages and disadvantages of both methodologies, and the impact on the planning process and other related activities, to make the best decision concerning capacity equivalence in future Integrated Resource Planning and resource procurement activities. The wording referenced in the RCB Framework is intended to reflect that the Deferred Generation Capacity Costs will continue to be based on the capacity equivalency for renewable resources, whether ICE or ELCC is used in the future.

Contact: Jeff Grubb

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-66

Question:

Refer to Technical Appendix, Volume 1, Renewable Integration Study, p. 36, Table 24. The analysis concludes that the integration cost for Scenario A is $17.69 million per year. Please provide a comparison of this value to an accounting of actual increases in Southern Company production costs in order to mitigate solar volatility over the past 5 years. Include details of the drivers of increased production cost and provide workpapers used to calculate this comparison in electronic spreadsheet format with formulas intact.

Response:

Given the dynamic nature of operating reserve requirements and targets, production cost increases associated with mitigating solar volatility are not independently accounted for.

Contact: Jeff Grubb

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-56

Question:

Refer to Technical Appendix, Volume 1, Renewable Integration Study, p. 17, describing the "flexibility violation." Does the Company currently track incidents of real-world flexibility violations, even if they do not result in a loss of load event due to "frequency bias and response of the interconnect"? If so, please provide records of these violations over the past 10 years, including data on duration and energy deficit (in MWh).

Response:

The Company does not directly track "flexibility violations." However, the Company has consistently maintained compliance with all operating standards regarding real power balancing. It is the Company's practice to operate the System with appropriate margins in order to maintain reliable operation.

Contact: Jeff Grubb

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-46

Question:

Refer to Technical Appendix, Volume 1, Renewable Integration Study, p. 3, Table 3. Which mitigation cost value does the Company propose using in the next procurement? The Scenario B price, which is reflects the costs for all project online and planned, or the cost for Scenario C, which is the cost for the system with the next increment of solar? Please explain the rationale for the Company's response. If the Company will propose to use a different value, please explain.

Response:

The Company used the Scenario B value for the RCB calculations provided in the IRP. The value to be used in a specific procurement program should consider the size, timing, and structure of the procurement program.

Contact: Jeff Grubb

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-25

Question:

Regarding the statement on pg. 13-89 about the Company's "ownership and operation of dependable energy storage resources it can rely upon and control.", does the Company see ownership of energy storage as a requisite to reliance and control of those resources? Can the Company not obtain adequate control of resources through power purchase agreements to rely upon capacity resources, generally?

Response:

Given the vital role that certain energy storage system ("ESS") will play as operating reserves in managing the unique reliability challenges associated with the increasing penetration of intermittent renewable resources on the system, it is not in the best interests of customers to rely on contractual arrangements for ESS serving as operating reserves to maintain reliability.

The Company is not requesting to own and operate all energy storage resources. The Company is proposing to add 1,000 MW of Company owned ESS by 2030 so it can provide operating reserves more efficiently and support renewable integration at a lower production cost. Power purchase agreements do not provide the same level of reliability and control that comes with ownership of the resource. On the other hand, for the purposes of meeting energy and capacity needs, the Company can obtain adequate control of resources through power purchase agreements. The Company's 2022 IRP demonstrates this by seeking certification of capacity resources while not requesting to own all energy storage resources.

Contact: Jeff Grubb

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 3

STF-DEA-3-18

Question:

Please describe how the renewable procurements, such as to support the CARES Economic development, outside of the IRP process and between IRP cycles would operate. In this IRP, is the Company requesting approval to make such requests?

Response:

Yes, the Company is requesting approval from the Commission in this IRP to make such requests between IRP cycles if the need arises. Where the CARES New Load program is already fully subscribed or does not meet the needs of a qualifying customer, Georgia Power will return to the Commission to seek approval to procure new renewable resources in addition to the 2,300 MW of resources proposed in this IRP. Georgia Power may request approval to use updated proposals from unselected RFP bids, or to initiate a new, stand-alone RFP to procure energy to supply the CARES Economic Development program.

Contact: Wilson Mallard

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-7

Question:

Refer to the main IRP document p. 14-100. Please explain what the "enhanced portfolio selection process" will entail and contrast it with the current procurement method.

Response:

Refer to the Company's response to STF-DEA-2-6. Under prior renewable resource procurement guidelines, the Company selected renewable projects to fill the Commission-approved RFP targets so long as each of those resources was below the Company's projected RCB avoided costs ("RCB Avoided Costs"). While the Company will continue to evaluate economics during bid evaluations, in this IRP, Georgia Power proposes to cease applying the RCB Avoided Cost threshold as an automatic disqualification for bids in the Renewable RFP process. The Company is proposing additional flexibility in how it identifies the portfolio of best-cost resources to fill the Company's renewable energy needs as identified by the Renewable Expansion Plan Analysis. The Company will continue to follow the core principle of its renewable resource procurements, which is to ensure that the resources procured are cost effective and provide benefits to customers. The Company will leverage the information gained through the RFP process, such as actual bid prices, projected in-service dates, updated interconnection costs, and other market information, to remain adaptable in procuring resources to meet the Company's renewable energy need. The Company, working with the Commission Staff and the IE, will determine the exact criteria and methods of evaluation, ranking, and selection as part of the Commission-approved RFP process.

Contact: Wilson Mallard

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 3

STF-DEA-3-22

Question:

Please explain why the Company is proposing to increase the size of utility scale resources to greater than 6 MW AC.

Response:

The Company has seen a clear trend in bidding practice over the past five years towards larger projects associated with the utility scale RFPs, and these projects have resulted exclusively in transmission connected projects. Additionally, the Company increased the size limit for DG resources up to 6 MW based on a reasonable size that can be interconnected to typical 27kV-class distribution circuits and allows for more economies of scale. Therefore, the Company adjusted the capacity range for its future utility scale and DG solicitations.

Contact: Wilson Mallard

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-29

Question:

Please provide any workpapers or calculations the Company has used to reach its determination that a) the chosen definition of North Georgia accurately distinguishes the geographic area which will provide the greatest locational benefit for resources, and b) the procurement of resources in North Georgia will provide the least cost option for the procurement of new renewable resources and associated system resources to ensure system reliability.

Response:

Please see the TS STF-DEA-2-29 Attachment A for the projection of 2028 load versus generation by areas upon retirement of all coal generation in 2028. For the optimal transmission sites for generation in Georgia, please refer to Section E4 of Technical Appendix Volume 3. The Company has completed numerous additional transmission power flow studies, including evaluations associated with retirement of its coal resources. An illustration of these transmission system issues is included in TS STF-DEA-2-29 Attachment A and the power flow models are included in TS STF-DEA-2-29 Attachment B. All these evaluations demonstrate the significant transmission system challenges associated with adding new renewable resources in south GA. The Company has not completed the North Georgia Renewable Request for Proposal ("RFP"), which will provide additional information on the cost of new renewable resources in North Georgia.

Contact: Jeff Grubb

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-30

Question:

Regarding the Company's proposal for locational guidance to DG projects, pg. 14-99, please provide a list of what information the Company proposes to provide within the hosting capacity tool. Will this hosting capacity tool supplant the need for the Company's current Tier 1 interconnection guidance?

Response:

The hosting capacity tool will assist developers to identify where capacity may exist on the distribution system and is an enhancement to the existing Interconnection Guidance ("ICG") program. The hosting capacity tool will provide an annual snapshot of distribution circuit available capacity in a graphical GIS-based format

Per the IRP filing, the hosting capacity tool does not supplant the need for participants to leverage the Company's ICG program. Interconnection Guidance is available to assist DG participants with specific project siting and facility size decisions. The hosting capacity tool will be a complementary resource used in conjunction with the ICG program.

Contact: Wilson Mallard

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 4

STF-DEA-4-6

Question:

Please refer to the IRP Main Document at p. 14-99 regarding the proposed hosting capacity tool: Will access to the web-based hosting capacity tool be free-of-charge? If not, please explain. How did the Company decide that annual was the appropriate update frequency? In what format will the maps be provided?

Response:

The focus of the Hosting Capacity tool is to support the 2022 IRP Distributed Generation Programs, enhancing the Company's existing interconnection guidance program. The Company will be limiting access to registered generators participating in these programs. There are no plans to charge registered generators for this access. Since the Hosting Capacity tool will be used in support of Georgia Power's Distributed Generation Programs, the Company intends to collect the implementation and ongoing administration costs through the fuel clause.

The Company will develop a model based on the non-coincidental annual peak of the individual feeder. At this time, the Company believes this is a sufficient level and frequency of data to address the needs of developers while considering the cost of development. If a need for additional or more frequent screens is identified, the Company will consider providing this information depending on the future cost of development.

The format of the Hosting Capacity tool is currently under development. The tool will utilize a graphical mapping platform that will allow potential generators to assess where circuit capacity may exist. The tool will be static and updated annually.

Contact: Michael Robinson

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 4

STF-DEA-4-17

Question:

Please refer to the IRP Main Document, page 14-102, Distributed Generation RFP Procurement Strategy. When evaluating DG resources for the DG RFP, please explain what criteria is used to determine if DG bids will require Direct Transfer Trip ("DTT") facilities to be installed. What are the typical costs per mile to install such DTT facilities? Please provide a list of the typical devices installed for a DTT installation. Please provide any studies or analysis that the Company has performed or had performed on its behalf regarding the use of wireless DTT facilities in place of wired DTT solutions.

Response:

For distribution feeders that provide interconnection service to grid-following inverter-based distributed generation ("DG") Facilities only, a proposed solar DG bid will require DTT if the ratio of aggregate distributed energy resource (DER) capacity (including the proposed solar DG bid capacity to the distribution feeder line section's most recent gross peak load) is greater than 50% plus a tolerance of 2.5%.

For distribution feeders that provide interconnection service to both grid-following inverter-based and other DERs with black-starting capability (e.g., grid-forming inverter-based and rotating machine DERs), a proposed solar DG bid will require DTT if the ratio of aggregate distributed energy resource (DER) capacity (including the proposed solar DG bid capacity to the distribution feeder line section's most recent daytime minimum load) is greater than 33% plus a tolerance of 2.5%.

For DG projects, the Company does not provide unit cost but only the total interconnection cost (including DTT). DTT costs for two projects with the same physical length of DTT route could be different due to differences in the design of the two DTT schemes.

Typical communications devices installed for DTT include the fiber optic communications cable and the fiber optic transceiver/modems.

With regards to wireless DTT replacing wired DTT for DGs, the Company has considered radio communication but prefers fiber since radio communication is relatively slow and may not meet the 10 to 15 cycle (167 to 250 millisecond) time required to prevent load-rejection overvoltage or service quality issues that could arise during formation of unintentional islands. Additionally, radios use unlicensed spread spectrum (in the 902 to 928 MHz range) that is also available for use by the public and, therefore, vulnerable to unauthorized access and harmful interference that negatively impacts communication latency. Lastly, radios may not work in areas of the state where terrain, structures, and/or other obstructions limit line of sight communication due to direct line of sight requirements.

Contact: Michael Robinson

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 4

STF-DEA-4-15

Question:

Does the Company have a distribution system plan to replace existing hydraulic reclosers with electronic reclosers? If so, please provide the details of this plan such as scope, timeline for its implementation, costs of recloser replacements, projected savings, and the current progress of this project.

Response:

Yes, the Company has a plan to replace all hydraulic reclosers.

Regarding the scope of the program, the Company began replacing all hydraulic reclosers with communicating and non-communicating electronic reclosers in 2019. The specific protection need at each hydraulic recloser location dictates which type of equipment is installed at each location. Hydraulic reclosers are usually replaced with reclosers that are not telecommunications enabled. In some locations, a telecommunications enabled electronic recloser is needed because the system protection requirements at that location warrant the use of that type of equipment.

The average annual cost of hydraulic recloser replacements is $5.6M. The replacement reclosers have an expected operational life that is substantially longer than hydraulic reclosers. Due to the fact that replacement units have a substantially longer life, the ongoing capital requirement for recloser replacement will be greatly reduced after the completion of this program. The Company expects to replace the remaining 4,600 hydraulic units on the system by 2029.

Contact: Michael Robinson

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-32

Question:

Regarding the Company's proposed CARES program, will the carve-out for MUSH customers be administered differently from the other CARES program categories? Does the Company expect to have additional or different program guidelines, timelines or requirements, other than the customer type and aggregate load requirements designated?

Response:

The carve-out for MUSH customers will be administrated similar to the other options in the CARES program. The Company does not expect to have additional or different program guidelines, timelines, or requirements, other than the customer type and aggregate load requirements. Final approval for the specific requirements is not anticipated to occur until the program tariff and guidelines are filed with the Commission following the 2022 IRP

Contact: Wilson Mallard

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 2

STF-DEA-2-20

Question:

Please provide monthly Community Solar customer signups and block subscriptions data from the beginning of the program to current.

Response:

2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Blocks	245	337	469	555	683	911	1,150	1,208	1,271	1,280	1,327	1,394
Total Participants	120	187	259	306	377	531	671	706	723	730	759	817

2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Blocks	1,440	1,451	1,570	1,664	1,656	1,711	1,708	1,706	1,742	1,811	1,810	1,812
Total Participants	845	847	891	938	942	971	963	958	967	1,012	1,010	999

2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Blocks	1,784	1,730	1,692	1,669	1,654	1,720	1,757	1,787	1,786	1,803	1,795	1,797
Total Participants	991	969	960	947	929	971	997	999	1,005	1,025	1,031	1,031

2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Blocks	1,785	1,775	1,767	1,808	1,828	1,820	1,807	1,862	1,873	1,936	2,005	2,013
Total Participants	1,027	1,022	1,019	1,050	1,064	1,058	1,048	1,073	1,073	1,122	1,170	1,170

2022	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total Blocks	1,994	1,954										
Total Participants	1,163	1,154										

Contact: Wilson Mallard

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 3

STF-DEA-3-29

Question:

Regarding the proposed modifications to the Community Solar tariff, what specifically is the Company requesting approval of during the IRP? Examples could include, but are not limited to, updated pricing, Commercial availability, and/or Income Qualified carve out.

Response:

The Company is seeking approval to update pricing for standard "R" rate residential customers as shown in Table 9 on page 14-112 and add the commercial General Service rate and pricing to the Community Solar Program, also shown in table 9 on page 14-112. Pricing for both classes are based on December 2021 assumptions and the final pricing may be updated in the Rate Case filing in June 2022. The Company is also requesting approval to offer a portion of the available Community Solar blocks to 5,000 qualified customers in the proposed Income Qualified Community Solar Pilot that will be supported by corporate sponsors. The Company will file an updated Community Solar Tariff for approval subsequent to the outcome of the 2022 IRP.

Contact: Wilson Mallard

Docket Nos. 44160 & 44161
Georgia Power Company's 2022 IRP and 2022 DSM Application
STF-DEA Data Request Set Number 3

STF-DEA-3-35

Question:

Regarding the Flex REC Program, what specific requests are the Company making as part of the IRP?

Response:

The Company is requesting approval to replace the current Simple Solar Large Volume offering with the Flex REC program. This new program design includes new pricing, adjustments to the tiered pricing structure, and the option to source program RECs from resources beyond solar. Additionally, the Company is seeking approval to implement an economic development option for use on a case-by-case basis where Georgia Power may negotiate a REC agreement with potential large C&I customers that meet the filed criteria. The Company intends to file for approval an updated Simple Solar and a new Flex Rec tariff subsequent to the IRP.

Contact: Wilson Mallard