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Statement designating one category for which Applicant seeks funding for the capital improvement project:

Georgia Power Company is submitting this Bartletts Ferry Generator Upgrade project under Category 1: Improving Grid Resiliency, under subcategory (a) (1) "adapting more quickly to changing grid conditions." This capital improvement project will upgrade the four generating units in the west Bartletts Ferry powerhouse, which includes replacing the turbine runners, generators, and intake trash racks. This will yield greater reliability and rated capacity increases from 15 MW to 18.4 MW (Units 1 and 2), 15 MW to 18.45 MW (Unit 3), and 20 MW to 23.4 MW (Unit 4). Overall, the facility will achieve a rated capacity increase of 21 percent over the original rated powerhouse capacity of 65-MW.

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Documentation relating to the existing conditions and the capital improvement

1. Detailed, written narrative describing the capital improvement project at the hydroelectric generation facility, the need or rationale for the project, and the expected outcomes or benefits of the project:

Baseline (Existing) Configuration, Conditions, and Operations

Georgia Power Company's (Georgia Power or "GPC") Bartlett's Ferry Hydroelectric Project (FERC Project No. 485-065) is a complex located on the Chattahoochee River betwixt Harris County, Georgia and Lee and Chambers Counties, Alabama. The dam is located at river mile (RM) 177.9, approximately 23.5-miles (mi) downstream of the U.S. Army Corps of Engineers' (USACE) West Point Dam (RM 201.4). The existing Bartlett's Ferry Project license was issued on December 22, 2014, with a license expiration date of December 21, 2044.

The project consists of a gravity rockfill and earth type dam, two powerhouses (west and east), an impoundment, and recreation facilities. Under normal operating conditions, Lake Harding, a 12.7-mi long, 5,850-acre (ac) reservoir, impounds up to 181,000-acre-feet (ac-ft) of storage capacity of which only 57,600-ac-ft is usable for hydropower generation. The pool level varies between 510- and 521-feet (ft) in elevation from plant datum (PD). The 2,052-foot (ft) long west dam includes a non-gated auxiliary labyrinth spillway; a non-overflow section; a west powerhouse intake; and a gated spillway section equipped with 19 radial gates and two trash gates. The 915-ft long east dam consists of a non-overflow section. The west and east dams are separated by a 650-ft long intake canal, which passes flows to the intake for the east powerhouse through two 25-ft diameter penstocks, then to the east powerhouse. The west powerhouse intake is integral with the west dam and passes flows from Lake Harding, through four 15-ft diameter penstocks, to the west powerhouse. The east powerhouse discharges into an approximately 800-ft long tailrace that flows into the backwaters of the Goat Rock Reservoir, part of the separately licensed Middle Chattahoochee Project. The west powerhouse discharges to an approximately 1,700-ft long backwater section of the Goat Rock Reservoir.

The west powerhouse houses three 15-megawatt (MW) and one 20-MW vertical Francis turbine-generator units for a total generation capacity of 65-MW. The maximum hydraulic capacity is approximately 2,330-cubic-feet-per-second (cfs) for Units 1 and 2, approximately 2,260-cfs for Unit 3, and 2,880-cfs for Unit 4 for a total [west] plant hydraulic capacity of approximately 9,800-cfs. Power from the four west units is passed to a substation located adjacent to the powerhouse. The east powerhouse houses two 54-MW vertical Francis turbine generator units for a total generation capacity of 108-MW. Power from the two east units is passed to a substation adjacent to the east powerhouse. The total installed capacity for the

project is 173-MW, and the project currently generates about 392,577-megawatt-hours (MWh) of energy annually.

Bartlett's Ferry Dam is owned and operated by GPC in a modified run-of-river mode, primarily to meet the demand of the Southern Electric System during peak periods of the day. During periods of adverse or mean flow, generation is limited to peak demand hours, which generally amounts to several hours per day on weekdays. During times of increased flow, Bartlett's Ferry operates additional hours during non-peak demand periods to make the best use of the inflow without spilling water. As such, the Bartlett's Ferry Project periodically operates outside the peak demand period to pass excess inflows necessary to maintain water surface elevations in Lake Harding. Inflow to Lake Harding is passed through either the March 2023 2-2 FERC Project No. 485 west powerhouse or east powerhouse and discharged directly into the upper end of the Middle Chattahoochee Project's Goat Rock Lake, with no intervening riverine or bypassed reach. Pursuant to License Article 401, GPC operates the Bartletts Ferry Project to maintain the reservoir elevation between 518- and 521-ft PD 99-percent (%) of the hours each calendar year, and between 519- and 521-ft at least 85% of the hours each calendar year.

The Bartlett's Ferry Project is operated in coordination with flow released from the upstream USACE West Point Dam. West Point Dam controls about 82% of the inflow into the Bartlett Ferry Project with the remaining 18% originating from tributaries. The Bartlett's Ferry Project and West Point Dam typically release water for generation on the same daily schedule. Consequently, the elevation of Lake Harding gradually drops over the course of the day until peaking released from West Point Dam arrive 4 to 6 hours later, which refills Lake Harding.

Georgia Power's downstream Middle Chattahoochee Project (FERC No. 2177) is subject to multiple flow requirements. From time to time, Georgia Power uses storage from the Bartletts Ferry Project to assist in meeting these flow requirements, by supplementing the USACE reduced weekend releases from West Point Dam. If Georgia Power releases these supplemental flows on the weekends, Lake Harding can drop 0.75- to 1.0-ft, but remains within elevations 518.0- and 521.0-ft. During low-inflow and drought conditions, Georgia Power operates the Bartletts Ferry Project in much the same way as under normal operation. Lake levels generally are maintained at 519.0-ft. Depending on the severity of the drought and unscheduled flow reductions from West Point Dam, the level of Lake Harding may drop below elevation 519.0-ft; however, the duration typically does not exceed one week. The Bartletts Ferry Project is not designed to provide flood control and lacks sufficient storage to do so. Consequently, during flood conditions, after maximizing turbine discharge (about 24,000-cfs), the 19 radial spillway gates are opened so that discharge matches inflow. Once the capacity of the spillway gates is reached, the additional flow would be passed over the auxiliary labyrinth weir spillway so that the Bartletts Ferry Dam is not overtopped.

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Scope, Rationale, and Expected Outcomes of the Capital Improvement Project(s)

GPC will replace and refurbish components of the four turbine-generator units of the West Powerhouse at Bartletts Ferry, yielding greater reliability and rated capacity increases from 15-MW to 18.4-MW (Units 1 and 2), 15-MW to 18.45-MW (Unit 3), and 20-MW to 23.4-MW (Unit 4). Overall, the West Powerhouse will achieve a rated capacity increase of 21% over the original rated powerhouse capacity of 65-MW. These upgrades will include runner replacement, rehabilitation of other turbine components, generator core restacking, generator rewinds, rotor pole refurbishment, and trashrack and headgate refurbishment. GPC will also upgrade the unit and facility control and communications systems to provide remote operation capability and enhanced coordination with power and river system operations. It will also upgrade balance of plant systems, including station service, fire protection, service and potable water, lubrication systems, compressed air, HVAC, unwatering and sump systems, switchgear and transformers, maintenance facilities, and switchyard. Detailed engineering was completed in June 2023. The schedule for upgrades is Unit 1 in 2023, Unit 3 in 2024, Unit 2 in 2025, and Unit 4 in 2026. Upgrade of the balance of plant systems will occur in parallel with unit upgrades.

These upgrades are motivated by GPC's experiences with chronic maintenance issues and increasing failures within its hydropower fleet, including Bartletts Ferry. Decreasing reliability and increasing maintenance demands are consistent with components and systems nearing the end of service life as estimated by industry standards. GPC has initiated a comprehensive program for the rehabilitation and modernization of 15 generating stations, including Bartletts Ferry. GPC expects these upgrades to extend the life of the Bartletts Ferry units and associated systems, enabling them to provide reliable and affordable renewable energy, enhanced power system reliability and resilience, and effective stewardship of natural resources and local habitats for another 50 years. The upgrade effort will contribute to local and national economies and communities by creating skilled jobs in the manufacturing and construction industries, and will advance diversity, equity, inclusion, and accessibility and contribute to the Justice40 Initiative.

GPC has developed a Community Benefits Plan (CBP) for the capital improvement project and has already begun the community engagement effort. See CBP included in the Identifier Community Benefits Plan section of this application. GPC’s CBP Team will further evaluate the impacted communities that will enjoy the benefits and bear any concerns associated with the project. The assessment will seek to understand how these benefits and any concerns are likely to interact with cumulative burdens borne by these communities.

2. If the hydroelectric facility is not in compliance with all applicable Federal, State, and/or Tribal requirements, include a short narrative explaining why the facility is out of compliance.

The Bartlett's Ferry facility complies with all applicable Federal, State and Tribal requirements.

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3. A written narrative describing and, where possible, identifying potential areas of risk in the project work plan or other sources of risk associated with the capital improvement (e.g., project completion schedule, procuring materials and equipment, deployment of new technologies).

Potential Areas of Risk

GPC has identified potential areas of risk that could impact the project completion schedule and the cost of the project, which are set forth below. These risks are acceptable and manageable.

- Risk associated with lack of full set of turbine drawings.
- Risk associated with lack of full set of generator drawings
- Generator and Turbine schedule coordination risk
- Potential risk associated with Georgia Historical Society Requirements
- Potential turbine vendor deliverable delays effect on design deliverables
- Risk associated with powerhouse entrance being smaller than some existing equipment
- Risk associated with the headgate actuator location below deck limiting installation of new actuator
- Potential generator vendor equipment proposal delays required for BOP design deliverables
- Potential risk associated with startup strategy
- Potential risk associated with safety issues/safety checklist
- Potential risk associated with change control with plant involvement
- Potential risk associated with lack of drawings/documentation for existing systems
- Potential risk for yearly budget and cashflow variances affecting work schedule
- Risk of FERC reviews causing schedule delays
- Risk of damaging clay tile in the generator deck
- Potential risk of failure of existing vintage/aged components
- Potential risk associated with common equipment (Watt meter, relays, etc.)
- Potential transmission risk – not meeting the current schedule
- Risk associated with delay in award of contracts
- Risk associated with uptick in lead times for suppliers
- Potential risks associated with Plant labor-support
- Potential risks associated with outage plans
- Risk associated with delays in receiving electrical proposals and design documentation
- Risk associated with cable, wiring and equipment in the control room
- Potential risk associated with Cast iron generator shafts on U1 and 2 versus steel on U3 and 4
- Potential risk associated with access to 4^{th} floor for materials deliveries to control room
- Potential risk associated with U1, 2 and 3 thrust bearing inspection limitations
- Risk associated with Turbine Vendor sourcing impacting schedule

- Potential risk associated with Headgate Vendor impacting schedule
- Potential risk associated with transmission schedule
- Potential risk associated with bid process
- Risk associated with managing lead and asbestos abatement (turbine and generator)
- Potential risk associated with the usability of exiting stems and stem nuts

4. A project timeline summarizing the major steps/milestones described in the capital improvement project work plan and Community Benefits Plan.

Project Timeline

Southern Company and GPC project managers' experience with hydroelectric generator upgrades conducted during the previous decade provides a tested methodology and optimal schedule for expediting generator and upgrades. The results of this experience support the proposed project schedule completion within the project period. See detailed Project schedule for the capital improvement project included herein in **Appendix A – Exhibit A**.

Bartlett's Ferry Dam Generator Upgrade Project Milestones	
Description	Milestone Date
Community Benefit Plan Mobilization	2021, Q4
Capital Improvement Project Mobilization	2023, Q1
Complete Unit 1	2024, Q1
Complete Unit 3	2025, Q1
Complete Unit 4	2026, Q1
Complete Unit 2	2027, Q1
Demobilization	2027, Q1

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5. Any monitoring plans, required through the FERC regulatory process or otherwise, that will document the effectiveness of the capital improvement project.

Monitoring Plan

GPC understands that efficient project management, capable leadership, and effective oversight and monitoring are necessary requirements for the successful implementation of the Bartlett's Ferry power generator and trash rack upgrades capital improvement project and the associated Community Benefits Plan (CBP). Senior management fully supports the goals and objectives of the generator upgrades as described in this application. A letter of support from Mr. Brandon Dillard, Senior Vice President & Senior Production Officer West, Southern Company, is included in the Identifier Executive Authorization section of this application.

To ensure and achieve the effectiveness of the technical and system-wide objectives set forth in this application, GPC has designated Dwight Daniel, Jr., Project Manager with Southern Company, as the project manager for the project. As the project manager, Mr. Daniel will have overall accountability for the safety, scope, schedule, cost, risk, and quality associated with this scope of work, and to ensure that project delivery process requirements and associated procedures, standards, and guidelines are followed. He will also oversee development and maintenance of the Project Implementation Plan.

Mr. Daniel is a proven leader with strong technical and project management experience and will be supported by GPC Project Managers, Shawn Dunne and Amber Sullivan, and GPC and Southern Company subject matter experts with relevant experience and expertise, with most of their time spent at Georgia Power. This dedicated project leadership, along with its existing engineering and construction expertise, will ensure the project is managed on budget and completed on schedule, and completed in a safe and efficient manner.

After the design of the generator upgrades are complete, GPC Project Managers and Southern Company Hydro Generation Management will develop and submit a Quality Control and Inspection Plan (or QCIP) for approval by FERC. This is done to document that the project has been performed in accordance with the plans and specifications approved by FERC.

To achieve the effectiveness of the CBP objectives set forth in this application, Southern Company has a designated individual (*i.e.*, the Community Benefits and Justice40 Project Manager) responsible for ensuring that CBPs and similar requirements are implemented appropriately. In addition, GPC has existing resources dedicated to engagement within its service territory. For the proposed project location, the project team includes Division VPs, Area Managers, and Community Relations Representatives that will assist in carrying out the community benefits plans requirements for this project. The Division VP and

Area Managers have regular engagements with city and county officials and other community leaders and will engage with the local community leaders on behalf of the CBP team.

6. **A project budget summarizing: a. The total cost of the capital of the capital improvement(s); b. The major cost categories of the capital improvement(s); c. The total amount of incentive payment requested; and d. Any other federal funding sources used to support the project.**

See project budget included herein in **Appendix A – Exhibit B.**

7. **A detailed itemized list of expected or actual capital costs for the capital improvement and documentation of the stated costs including but not limited to, as applicable, price estimates, vendor quotes, statements, invoices, or bills of sale for the capital improvement being applied for.**

See project budget included herein in **Appendix A – Exhibit B**.

8. **If applicable, documentation of FERC authorization of the capital improvement project, or if an amendment to the license is required, proof that a final application for authorization has been filed with FERC.**

FERC issued a license order for the Bartlett's Ferry Project – FERC No. P-485-065 on December 22, 2014. On April 22, 2014, FERC issued an Environmental Assessment for the project. GPC filed a license amendment application for this capital improvement project with FERC on May 6, 2022. GPC filed an Applicant Prepared Environmental Assessment (APEA) for this project along with an Additional Information Request response on March 2, 2023. GPC anticipates receiving an order amending GPC's license and authorizing the capital improvement project from FERC in 2023.

See copies of GPC's license amendment application, APEA, and response to FERC's Additional Information Request included herein in **Appendix A - Exhibit C**.

9. **If applicable, a request for a DOE NEPA determination as described in Section VII of DOE's Guidance.**

Not applicable. GPC has complied with the National Environmental Policy Act of 1969 (NEPA).

According to the Council on Environmental Quality's regulations for implementing the NEPA, a cumulative effect is an impact on the environment resulting from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency

or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities. Based on information contained in the APEA and consultation to date, no resources have the potential to be cumulatively affected by the capital improvement project at the Bartletts Ferry Dam.

See copies of GPC's license amendment application, APEA, and response to FERC's Additional Information Request included herein in **Appendix A - Exhibit C**.

10. If applicable, documentation demonstrating compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA) has been completed or is currently ongoing as described in Section VII of DOE's Guidance.

Section 106 of the National Historic Preservation Act (NHPA) requires FERC to consider potential adverse effects to historic properties prior to approving a license amendment.

See copies of GPC's license amendment application, APEA, and response to FERC's Additional Information Request included herein in **Appendix A - Exhibit C**.

11. If the project affects Indian Tribes, evidence to support that the project does not disturb, desecrate, or otherwise impair the integrity of a sacred site or Tribal cultural property of an Indian Tribe. Supporting documentation from an Indian Tribe potentially impacted by the capital improvement project is encouraged.

GPC consulted with the Georgia State Historic Preservation Office (SHPO) and the Alabama State Historic Preservation Office (SHPO) and entered into a Memorandum of Agreement (MOA) with them outlining the process and interpretative signage and consultation with tribes in developing signage that will take place to mitigate for adverse effects resulting from the capital improvement project. GPC has submitted the MOA to FERC and is waiting for FERC to approve and finalize the MOA. Once this occurs, GPC will proceed with doing the Historic American Engineering Record (HAER) documentation which includes large format archival photography, high-res copies of original drawings/plans, and a written historical narrative. Once GPC completes the HAER documentation it will be submitted to the Georgia and Alabama SHPOs, and to the National Park Service (NPS), that administers the program, for final approval. Once the NPS approves, it will be curated in the Library of Congress, as well as at the Georgia and Alabama SHPO.

See copy of proposed MOA included herein as **Appendix A –Exhibit D**.

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12. With respect to the funding restrictions outlined in Section XIII of this Guidance:

- **A statement on whether Build America, Buy America requirements apply to the project and the impact, if any, this requirement may have on the project's budget. If an applicant is seeking a waiver of the Build America, Buy America requirements, a written waiver request that includes all the information outlined in Section XIII(a) of this Guidance.**

According to FAQ guidance on the Section 247 program, the Build American, Buy American requirements "only apply to a State, local government, territory, Indian Tribe, institution of Higher Education or nonprofit organization". As a for-profit, investor-owned utility, the requirements therefore do not apply to GPC or its proposed project.

- **b. Acknowledgment that the applicant will comply with all of the Davis-Bacon Act requirements as outlined in Section XIII(b) of this Guidance.**

GPC acknowledges that it will comply with all the Davis-Bacon Act (DBA) requirements and that it has already taken steps with vendors and internally towards compliance. The DBA requires that laborers and mechanics who perform construction, alteration, or repair work, at the site of work, be paid no less than the prevailing wages and fringe benefits in the applicable wage determination. For this project, the "site of work" shall be 61 Lee Road 335, Salem, AL 36874, where the upgraded generator equipment will remain.

(1) GPC will ensure that the wage determination(s) and appropriate DBA clauses and requirements are flowed down to and incorporated into any applicable subcontracts or subrecipient awards.
(2) GPC will ensure that if wage determination(s) and appropriate DBA clauses and requirements are improperly omitted from contracts and subrecipient awards, the applicable wage determination(s) and clauses are retroactively incorporated to the start of performance. However, this is an ongoing project that began prior to the program being finalized and this application being submitted. While GPC is confident that prevailing wages have been paid to date, GPC agrees to audit prior payrolls for any laborers and mechanics who performed construction work at the site of work to ensure that prevailing wages and fringe benefits were in fact paid. GPC agrees to pay back wages to any such laborer or mechanic who performed construction work at the site of work who was not paid prevailing wages and fringe benefits. GPC agrees that it and its subcontractors will comply with all DBA requirements from the date the grant is effective forward.
(3) GPC agrees to be responsible for compliance by any subcontractor or subrecipient with the DBA labor standards.

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(4) GPC will receive and review certified weekly payrolls for all work performed by laborers and mechanics on the site of work submitted by all subcontractors and subrecipients for accuracy and to identify potential compliance issues.
(5) GPC will maintain original certified weekly payrolls for 3 years after the completion of the project and will make those payrolls available to the Department of Energy (DOE) or the Department of Labor (DOL) upon request, as required by 29 CFR 5.6(a)(2).
(6) GPC will conduct payroll and job-site reviews for construction work, including interviews with employees, with such frequency as may be necessary to assure compliance by its subcontractors and subrecipients and as requested or directed by the DOE.
(7) GPC will cooperate with any authorized representative of the DOL in their inspection of records, interviews with employees, and other actions undertaken as part of a DOL investigation.
(8) GPC will post in a prominent and accessible place the wage determination(s) and DOL Publication: WH-1321, Notice to Employees Working on Federal or Federally Assisted Construction Projects.
(9) GPC will notify the DOE Grid Deployment Office's Hydroelectric Incentive Program Section 243 of all labor standards issues, including all complaints regarding incorrect payment of prevailing wages and/or fringe benefits, received from the recipient, subrecipient, contractor, or subcontractor employees; significant labor standards violations, as defined in 29 CFR 5.7; disputes concerning labor standards pursuant to 29 CFR Parts 4, 6, and 8 and as defined in FAR 52.222-14; disputed labor standards determinations; DOL investigations; or legal or judicial proceedings related to the labor standards under a contract, a subcontract, or subrecipient award.
(10) GPC will prepare and submit to the Contracting Officer, the Office of Management and Budget Control Number 1910-5165, Davis Bacon Semi-Annual Labor Compliance Report, by April 21 and October 21 of each year through the iBenefits system (https://doeibenefits2.energy.gov), its successor system, or other manner of compliance as directed by the Contracting Officer.

GPC will undergo Davis-Bacon Act compliance training and will maintain competency in Davis-Bacon Act compliance. GPC currently contracts with a third-party Davis-Bacon Act electronic payroll compliance software application – eMars. **Accordingly, GPC specifically requests waiver of the use of DOE's Davis-Bacon compliance software application, and requests approval of its continued use of this third-party vendor for electronic submission of DBA weekly payrolls and other DBA requirements.**

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IX(1)(b)(2)(i). Stamped drawings, calculation sheets, or other appropriate documentation that clearly describes current conditions, the approach, and the expected or quantified outcome made through the capital improvement project.

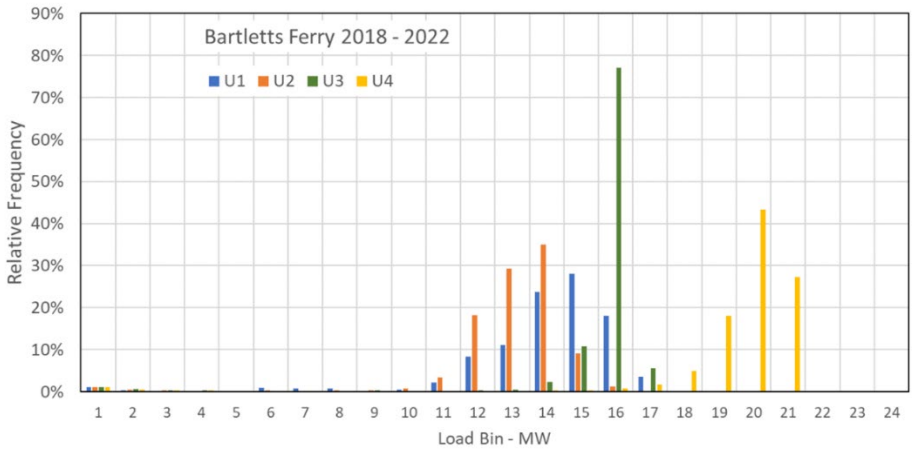
The Applicant's self-scoring of this application is as follows:

Criterion		Scoring
Operating Range		4 of 4 points
Flexibility	Ramp rates	4 of 4 points
	Start/stops per day	2 of 2 points
	Automation and advanced controls	2 of 2 points
Firm Capacity		3 of 4 points
Grid Reliability		4 of 4 points
Total		**19 of 20 points**

Upgrades of Units 1 through 4 at Bartlett's Ferry will improve the capabilities of the facility as follows:

Operating Range: DOE guidance for Section 247 applications does not define operating range. The Applicant assumes for the case of turbine-generator unit upgrade applications to DOE that *operating range* is quantified as the difference between the minimum and maximum power outputs that a unit can sustain in normal operations.

While GPC does not explicitly require that upgrades increase operating range in its specifications, a comparison of historical unit operations to the proposed post-upgrade capabilities of the units does reveal an increase in operating range. GPC does not have original equipment manufacturer (OEM) guidance for the minimum and maximum power outputs for the existing units at Bartlett's Ferry. However, an examination of historical hourly unit power output data for Bartletts Ferry (the same data GPC submitted within the DOE Efficiency Spreadsheet Tool for its Section 243 application) reveals the normal minimum and maximum of unit power output. Minimum and maximum thresholds are evident for Units 1 through 4 in the histogram plot below.



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GPC also has proposed capabilities, in the form of power versus flow and head relationships (Hill charts) and statements of minimum and maximum operating limits from the selected upgrade OEM. GPC is prohibited from disclosing details of these proposed capabilities due to nondisclosure/confidentiality requirements with the OEM, but is reporting the quantifications of the proposed operating ranges for Units 1 through 4. These values are included in the operating range summary tables below.

Unit	Proposed Rated Capacity	Historical Outputs - MW			Proposed Output Range Width* - MW	Increase in Range Width
		Min	Max	Range Width		
1	18.4	10.5	17.5	7.00	8.00	14.3%
2	18.4	9.5	16.5	7.00	8.00	14.3%
3	18.45	12.5	17.5	5.00	7.70	54.0%
4	23.4	16.5	21.5	5.00	9.50	90.0%
Facility Increase in Operating Range Width (capacity weighted)						**45.3% (+4 points)**

*at rated head

Ramp Rate: The upgraded units will be capable of increasing or decreasing output between condensing to generating at full power as quickly as existing units. Upgraded units will thus be capable of adding more power (at best efficiency or maximum output) than the existing units to the grid in the same amount of time. Accordingly, the percentage increase in ramp rate may be assumed equal to the percentage increase in rated capacity, to wit:

Unit	Rated Capacity – MW			Ramp Rate increase
	Existing	Proposed	Increase	
1	15	18.4	23%	
2	15	18.4	23%	
3	15	18.45	23%	
4	20	23.4	17%	
Facility Increase in Ramp Rate (capacity weighted)			**21% (+4 points)**	

Start/Stops: Upgraded units will maintain and/or improve capability to run continuously in either condensing or generating mode, with no limitation on the number of transitions between modes **(+2 points)**.

Automation and Advanced Controls: The applicant's modernization plan documents call for remote operation capability. The applicant's technical specifications for equipment bidders require proposed equipment capability for remote start operation, regulation, tripping, and annunciation **(+2 points)**.

Firm Capacity: The Applicant's Section 243 efficiency application provided the DOE Facility Efficiency Increase Tool analysis for the proposed modification of Units 1-4, indicating baseline and improved energy production of 735,105 MWh and 809,334 MWh, respectively—a 10.1% increase in energy production for the 5 year period of historical data **(+3 points)**.

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Grid Reliability: Appendix A of the *2022-2023 SERC Regional Risk Report* identifies the following Major Risk to Engineering Reliability: *There has been an increase in the SERC renewable energy resource portfolio, wind energy in the west and solar in the south and southeast. Integration of VERs raises the risk of voltage regulation, dynamic response, and sudden change in dispatch patterns. The changing characteristic of the grid with the growth of VERs will affect how the grid is operated in future. Since VERs are weather dependent, planning for backup resources in the absence of generation becomes essential to maintaining the reliability of the system.*

The Applicant asserts that the increases in rated capacity of units at Bartletts Ferry may contribute to "backup resources in the absence of [VER] generation", and that the improvement in operational reliability of and services from the upgraded units at Bartlett's Ferry may be useful in mitigating "risk of voltage regulation, dynamic response, and sudden change in dispatch patterns" associated with VERs **(+4 points)**.