

EXHIBIT D

STATEMENT OF COSTS AND

FINANCING

R.L. Harris Hydroelectric Project

FERC No. 2628



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1.0 INTRODUCTION

Alabama Power Company (Alabama Power) operates the R.L. Harris Project (Harris Project) on the Tallapoosa River in Alabama under a license issued by the Federal Energy Regulatory Commission (FERC) (FERC No. 2628). The information in this Exhibit D of the Final License Application is required by FERC under the Code of Federal Regulations Part 18, § 4.51(e) and 16.10. This exhibit provides the statement of costs and financing for the Project and conforms to the requirements of Exhibit D.

2.0 ORIGINAL COSTS OF PREVIOUSLY CONSTRUCTED UNLICENSED FACILITIES

This section is not applicable to the Harris Project as Alabama Power is requesting a new license, not an initial license. Hereinafter in this exhibit, "Project" will apply to the Harris Project, a single development.

3.0 ESTIMATE OF THE AMOUNT PAYABLE IF THE PROJECT WERE TO BE TAKEN OVER PURSUANT TO SECTION 14 OF THE FEDERAL POWER ACT

To date, no agency or interested party has recommended a federal takeover of the Project pursuant to Section 14 of the Federal Power Act. If such a takeover were to occur, Alabama Power would have to be reimbursed for the net investment, not to exceed the fair value, of the property taken, plus severance damages (Section 14, Federal Power Act).

3.1 FAIR VALUE

The fair value of this Project is dependent on prevailing power values and license conditions, both of which are subject to change. The best approximation of fair value would likely be the cost to construct and operate a comparable power generating facility. Because of the high capital costs involved with constructing new facilities and the increase in fuel costs (assuming a fossil fueled replacement), the fair value would be considerably higher than the net investment. The most likely method of replacing the energy and capacity of the Project would be with a new Combustion Turbine Plant.

The investment cost for producing an equivalent amount of energy and capacity at Harris Dam under the no action alternative is \$1,289,748,000 for the next 30 years in 2021 dollars. If Alabama Power did not have Harris Dam, the additional cost incurred in producing an equivalent amount of energy and capacity would be \$1,289,748,000 + \$134,046,000 (the estimated book value of Harris Dam at the end of 2021) = \$1,423,794,000 for a 30-year term. This represents the additional amount Alabama Power would have to spend to replace the lost energy and capacity of Harris Dam under the no action alternative, and is the Fair Value.

The investment cost for producing an equivalent amount of energy and capacity at Harris Dam under Alabama Power's proposal is \$1,272,962,000 for the next 30 years in 2021 dollars. If Alabama Power did not have Harris Dam, the additional cost incurred in producing an equivalent amount of energy and capacity would be \$1,272,962,000 + \$134,046,000 (the estimated book value of Harris Dam at the end of 2021) = \$1,407,008,000 for a 30-year term. This represents the additional amount Alabama Power

would have to spend to replace the lost energy and capacity of Harris Dam under its proposal, and is the Fair Value.

3.2 NET INVESTMENT

In 2021, the net investment for the Project is forecasted to be approximately \$134,046,000. This amount includes the original costs, accumulated depreciation, capitalized capital work in progress, expenses prior to 2021, and net investment, according to the Commission's Uniform System of Accounts. Table 3-1 provides the Year 2020 Project costs.

TABLE 3-1 PROJECT COSTS

Uniform System of Accounts No.	Title	Original Cost (\$)	Accumulated Depreciation (\$)	Net Investment (\$)
302*	Relicensing Cost	N/A	N/A	N/A
303	Misc Plant	\$ 254,706.50	\$ 7,635.24	\$ 247,071.26
330	Land and Land Rights	\$ 35,228,538.08	\$ 13,296,744.12	\$ 21,931,793.96
331	Structures & Improvements	\$ 45,244,550.69	\$ 20,451,378.00	\$ 24,793,172.69
332	Reservoirs, Dams, and Waterways	\$ 113,368,226.40	\$ 54,157,512.09	\$ 59,210,714.31
333	Waterwheels, Turbines and Generators	\$ 33,501,716.06	\$ 14,669,280.45	\$ 18,832,435.61
334	Accessory Electrical Equipment	\$ 6,099,637.28	\$ 2,667,472.42	\$ 3,432,164.86
335	Misc. Power Plant Equipment	\$ 3,749,933.67	\$ 1,051,918.30	\$ 2,698,015.37
336	Roads, Railroads, and Bridges	\$ 2,036,089.07	\$ 981,550.06	\$ 1,054,539.01
337	ARO	\$ 6,209.28	\$ 6,209.28	\$ -
352	Structures & Improvements	\$ 35,379.36	\$ 26,588.35	\$ 8,791.01
353	Station Equipment	\$ 1,860,153.71	\$ 1,114,429.49	\$ 745,724.22
397	Communications Equipment	\$ 113,611.49	\$ 61,514.72	\$ 52,096.77
	Totals	\$ 241,498,751.59	\$ 108,492,232.52	\$ 133,006,519.07

Note: These are values as of 12/31/2020.

*There are no 302 relicensing costs associated with the Project because this is the first time it has been relicensed.

3.3 SEVERANCE DAMAGES

The Project provides power to the Alabama Power transmission and distribution system for ultimate consumption by Alabama Power's customers. Severance damages are determined either by the cost of replacing (retiring) equipment that is "dependent for its usefulness upon the continuance of the License" (Section 14, Federal Power Act), or the cost of obtaining an amount of power equivalent to that generated by the Project from the least expensive alternative source, plus the capital cost of constructing any facilities that would be needed to transmit the power to Alabama Power's customers, minus the cost savings that would be realized from not operating the Project. Alabama Power estimates that the severance damages for the Harris Dam Project are approximately \$0.

4.0 ESTIMATED COST OF NEW DEVELOPMENT

The primary costs associated with new development within Alabama Power's proposal include the installation of the new minimum flow unit and two new recreation sites. Section 5 provides the total capital and operation and maintenance costs and annual operation and maintenance costs associated with new development and other protection, mitigation, and enhancement (PME) measures.

5.0 COSTS OF PME MEASURES

Table 5-1 provides a summary of estimated costs of Alabama Power's proposed PME measures, including estimated total capital costs, estimated total operation and maintenance costs, and annual operation and maintenance costs. PME measures proposed in this Final License Application will result in approximately \$43,420,000 in capital costs, approximately \$37,750,000 total operations and maintenance costs, and an annual operations and maintenance cost of \$1,258,333 at the Harris Project.

Costs for the minimum flow provided in Table 5-1 do not reflect energy gains or losses.

TABLE 5-1 ESTIMATED COSTS OF PROPOSED HARRIS PROJECT PME MEASURES

PM&E MEASURE	TOTAL CAPITAL	TOTAL O&M OVER 30 YEARS	ANNUAL O&M
Continue operating in accordance with ADROP to address drought management.	\$ 0	\$ 0	\$ 0-
Install, operate and maintain a Francis-type minimum flow unit to provide a continuous minimum flow of approximately 300 cfs in the Tallapoosa River below Harris Dam and with a generating capacity of approximately 2.5 MW. Final best gate flow would be determined following unit installation and performance testing.	\$ 37,900,000	\$2,250,000	\$ 75,000
Develop drought operations procedures for the minimum flow.	\$ 25,000	\$ 0	\$ 0
Develop and implement a Project Operations and Flow Monitoring Plan to monitor compliance with 1) Project Operation and Water Level Management; 2) flood control operations 3) drought management; and 4) flow releases from the Harris Dam.	\$ 100,000	\$ 300,000	\$ 10,000
Develop and implement an Aquatic Resources Monitoring Plan.	\$ 20,000	\$ 390,000	\$ 13,000
Develop and implement a Water Quality Monitoring Plan consistent with the 401 Water Quality Certification.	\$ 65,000	\$ 6,000,000	\$ 200,000
Continue operating the existing aeration system.	\$ 0	\$ 0	\$ 0
Incorporate an aeration system in the design of the new continuous minimum flow unit.	\$ 0	\$ 0	\$ 0
Continue to maintain the skimmer weir at the highest setting.	\$ 0	\$ 0	\$ 0

Economic Analysis

PM&E MEASURE	TOTAL CAPITAL	TOTAL O&M OVER 30 YEARS	ANNUAL O&M
When conditions exist, and upon request from ADCNR, hold Harris Reservoir water levels constant or slightly increasing for a 14-day period for spring spawning.	\$ 0	\$ 0	\$ 0
Provide fish habitat improvements by adding habitat enhancements to Harris Reservoir.	\$ 0	\$ 900,000	\$ 30,000
Finalize and implement a Nuisance Aquatic Vegetation and Vector Control Program.	\$ 0	\$ 1,200,000	\$ 40,000
Develop and implement an Erosion Monitoring Plan.	\$ 20,000	\$ 300,000	\$ 10,000
Finalize and implement a Wildlife Management Plan (WMP) for Lake Harris and Skyline.	\$ 1,800,000	\$ 11,295,000	\$ 376,500
Finalize and implement a Shoreline Management Plan (SMP) for Lake Harris.	\$ 0	\$ 5,355,000	\$ 178,500
Implement proposed land additions to the Project Boundary and incorporate into Exhibit G.	\$ 0	\$ 0	\$ 0
Implement proposed land removals from the Project Boundary and incorporate into the Exhibit G.	\$ 0	\$ 0	\$ 0
Finalize and implement a Recreation Plan.	\$ 3,490,000	\$ 8,370,000	\$ 279,000
Finalize and implement a Historic Properties Management Plan (HPMP).	\$ 0	\$ 1,390,000	\$ 46,333

6.0 ESTIMATED ANNUAL COST OF THE PROJECT

The estimated average cost of the Project before the proposed operating enhancements and PME measures (No Action alternative) will be approximately \$23,171,000 per year, levelized on 2020 dollars, based on a 30 year period of analysis. This estimate includes annualized values for the cost of capital, taxes, depreciation, and operation and maintenance expenses.

With Alabama Power's proposal, total Project costs will be approximately \$24,818,000 per year, levelized on 2020 dollars, based on a 30 year period of analysis. This estimate includes annualized values for the cost of capital, taxes, depreciation, and operation and maintenance expenses. The annual cost estimates associated with Alabama Power's proposal may not include all final costs. Should cost estimates change, Alabama Power will supplement this Final License Application filing to include these final costs.

7.0 ESTIMATED VALUE OF PROJECT POWER

Alabama Power estimates total annual energy production of the Project under the No Action alternative to be approximately 177,500 megawatt hours (MWh), while total annual energy production of the Project under Alabama Power's proposal will be approximately 175,200 MWh. Energy produced at the Project is sold at prevailing regulated rates as approved by the Alabama Public Service Commission (APSC).

The estimated average annual Project cost under Alabama Power's proposal will be approximately \$141.7 per MWh. The summary of annual benefits and costs is provided in Table 7-1.

Were the Project not to be retained, additional combustion turbine generating capacity would be required to replace lost hydroelectric capacity. A simple cycle combustion turbine (CT) represents the lowest cost of capital to replace the capacity at Harris Dam. Cost estimates for capital and operation and maintenance for the CT option are developed internally based on proprietary sources of information and recent market information. However, the cost estimates developed fall within the ranges of technology cost estimates that have been produced recently from a variety of sources. Alternative capacity and energy equivalent to project capacity and energy is expected to cost approximately \$242.2 per MWh of average levelized annual cost over the same 30-year period of life expected for the Project. The natural gas prices used are based on the EIA Annual Energy Outlook for 2020.

Accordingly, the estimated annual value of the Project defined as the difference between the cost to operate the Project and the cost to replace the generation associated with said Project (*i.e.*, avoided cost) for Alabama Power's proposal is approximately \$100.6 per MWh (\$242.2 per MWh minus \$141.7 per MWh) or a total of \$17.6 million per year over the 30 year period.

TABLE 7-1 SUMMARY OF ANNUAL BENEFITS AND COSTS

	No Action Alternative (Baseline)	Alabama Power's Proposal
Annual Generation (MWh)	177,487	175,177
Average Annual Project Cost (\$)*	23,170,524	24,818,035
Average Annual Project Cost (\$/MWh)	130.55	141.67
Annual Replacement Cost (\$)	42,991,600	42,432,063
Annual Replacement Cost (\$/MWh)	242.22	242.22
Estimated Annual Project Value (Avoided Cost in \$)	19,821,076	17,614,028
Estimated Annual Project Value (Avoided Cost in \$/MWh)	111.68	100.55

*Costs levelized over 30 years in 2020 dollars

8.0 SOURCES AND EXTENT OF FINANCING AND ANNUAL REVENUES

Alabama Power obtains its annual revenues generally from the sale of electricity under retail rates established by the APSC and under wholesale rate contracts approved by the Federal Energy Regulatory Commission.

Alabama Power has sufficient resources to finance the operational changes and PME measures in Alabama Power's proposal, as described in this Final License Application. If additional financing is necessary, Alabama Power will use its traditional sources of debt and equity financing.

A more detailed description of Alabama Power's financial information is provided in its most recent FERC Form 1.

9.0 COST TO DEVELOP THE LICENSE APPLICATION

Alabama Power developed its application to relicense the Project which will be filed no later than November 30, 2021. Alabama Power estimates that the Project relicensing process costs are approximately \$10.2 million.

10.0 VALUE OF PROJECT POWER

The on-peak and off-peak values of project power are presented in Table 10-1 below. These values are based on Alabama Power's avoided costs. The peak period represents the June through September months.

Table 10-1 On-peak and Off-peak project power values

Year	Peak Season Peak Hours (\$/MWhr)	Peak Season Off-Peak Hours (\$/MWhr)	Annual All Hours (\$/MWhr)
2021	32.33	24.59	25.34

11.0 THE EFFECT OF PROPOSED CHANGES IN PROJECT OPERATION

Alabama Power estimates that the average annual decrease in the value of Project power (the difference between the avoided cost for the No Action Alternative and Alabama Power's Proposal) levelized on 2020 dollars over the same 30 year period of life expected for the Project will be approximately \$2,207,048 per year, based on the impact of the aforementioned change.

Under the No Action Alternative, estimated annual energy production is 177,487 mwh. Under Alabama Power's proposal with the minimum flow unit, expected annual energy production is 175,177 mwh. This results in an annual energy loss of 2,310 mwh due to operation of the minimum flow unit.