U.S. Hydropower Resource Assessment for Mississippi

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ABSTRACT

The U.S. Department of Energy is developing an estimate of the undeveloped hydropower potential in the United States. The Hydropower Evaluation Software (HES) is a computer model that was developed by the Idaho National Engineering Laboratory^a for this purpose. HES measures the undeveloped hydropower resources available in the United States, using uniform criteria for measurement. The software was developed and tested using hydropower information and data provided by the Southwestern Power Administration. It is a menu-driven program that allows the personal computer user to assign environmental attributes to potential hydropower sites, calculate development suitability factors for each site based on the environmental attributes present, and generate reports based on these suitability factors. This report describes the resource assessment results for the State of Mississippi.

a. In January 1997, the name of the Idaho National Engineering Laboratory (INEL) was changed to the Idaho National Engineering and Environmental Laboratory (INEEL). INEEL will be used throughout the text of the document, except where the use of INEL is historically important.

ACKNOWLEDGMENTS

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U.S. Hydropower Resource Assessment for Mississippi

INTRODUCTION

In June 1989, the U.S. Department of Energy initiated the development of a National Energy Strategy to identify the energy resources available to support the expanding demand for energy in the United States. Public hearings conducted as part of the strategy development process indicated that undeveloped hydropower resources were not well defined. As a result, the Department of Energy established an inter-agency Hydropower Resource Assessment Team to ascertain the undeveloped hydropower potential. In connection with these efforts by the Department of Energy, the Idaho National Engineering Laboratory designed the Hydropower Evaluation Software (HES), which has been used to perform a resource assessment of the undeveloped conventional hydropower potential in over 30 states. This report presents the results of the hydropower resource assessment for the State of Mississippi. Undeveloped pumped storage hydropower potential is not included.

The HES was developed as a tool to measure undeveloped hydropower potential regionally or by state. The software is not intended to provide precise development factors for individual sites, but to provide regional or state totals. Because the software was developed as a generic measurement tool encompassing national issues, regional and state totals must be considered judiciously; various local issues may skew undeveloped hydropower potential totals. The information for the resource assessment was compiled from the Federal Energy Regulatory Commission's Hydroelectric Power Resources Assessment database and several other sources. Refer to DOE/ID-10338, the *User's Manual* (Francfort, Matthews, Rinehart 1991) for the specifics of the software and to DOE/ID-10430.1, the *Status Report* (Conner, Francfort, Rinehart 1996) for an overview of all resource assessment activities to date.

Model Development

Hydropower Evaluation Software, both a probability-factor computer model and a database, is a menu-driven program that is intended to be user-friendly. Computer screens and report-generation capabilities were developed to meet the needs of users nationwide. The software uses environmental attribute data to generate an overall project environmental suitability factor (PESF) between 0.1 and 0.9, where 0.9 indicates the highest likelihood of development and 0.1 indicates the lowest likelihood of development. The suitability factors depend on the unique environmental attributes of each potential site. They reflect the considerations that (a) environmental concerns can make a potential site unacceptable, prohibiting its development (for a suitability factor of 0.1), or (b) if there are no environmental concerns, there is no negative effect on the likelihood of site development (for a suitability factor of 0.9). A combination of attributes can result in a lower suitability factor because multiple environmental considerations would reduce the likelihood that a site may be developed to its physical potential.

Model Goal

The goal of the HES is to assemble an accurate resource database of all sites with undeveloped hydropower potential in the United States for use as a planning tool to determine the viable national hydropower potential. Undeveloped hydropower potential is not limited to the development of new sites; it also includes the development of additional hydropower-generating capacity at sites that currently have hydropower, but are not developed to their full potential. This undeveloped hydropower potential is a source of nonpolluting, renewable energy available to meet the growing power needs of the United States. The HES should help make this goal obtainable and ensure a set of uniform criteria for national assessment.

Dam Status

The effects of environmental attributes vary by dam status. The dam status classifications used are as follows:

- W = Developed hydropower site with current power generation, but the total hydropower potential has not been fully developed. Only the undeveloped hydropower potential is discussed in this report.
- W/O = Developed site without current power generation. The site has some type of developed impoundment or diversion structure, but no developed hydropower generating capability.
- U = Undeveloped site. The site does not have power generation capability nor a developed impoundment or diversion structure.

ASSESSMENT RESULTS

Summary Results

A total of 19 sites (Table 1) have been identified and assessed for their undeveloped hydropower potential. The HES results for

individual site capacities range from 30 kilowatts (kW) to 16 megawatts (MW). The majority (84%) of the sites in Mississippi are less than 10 MW. (Figure 1).

The nonmodeled undeveloped hydropower potential total for Mississippi was identified as 128 MW. The HES results lowers this estimate about 28% to 92 MW. The State of Mississippi does not have any hydropower sites with current power generation. The greatest reduction in undeveloped hydropower potential, by MW, occurs at developed sites without current power generation capability (W/O). These sites have a HES-modeled undeveloped hydropower potential of 62 MW, a 19-MW reduction in the estimated undeveloped hydropower potential (Figure 2). Figure 3 correlates the number of sites that have undeveloped hydropower potential with the total megawatts of HES-modeled undeveloped hydropower potential

The 19 identified sites are located within 3 major river basins and several minor river basins. The number of sites per major river basin ranges from 2 in the Pearl River Basin to 7 in the Tombigbee River Basin (Figure 4). The major river basins within Mississippi have similar amounts of undeveloped hydropower potential. Sixty-four percent of the undeveloped hydropower potential in the State of Mississippi lies within the minor river basin sites (Figure 5).

Table 1. Undeveloped hydropower potential summary for Mississippi. The table contains the nonmodeled undeveloped nameplate potential and the HES-modeled undeveloped potential totals.

	Number of projects	Nameplate potential (MW)	HES-modeled potential (MW)
With Power	0	0	0
W/O Power	13	81.3	62.2
Undeveloped	6	46.7	29.4
State Total	19	128.0	91.6

Figure 1. Number of sites, by capacity groups, with HES-modeled undeveloped hydropower potential.

Figure 2. The nonmodeled and HES-modeled undeveloped hydropower potential.

Figure 3. The number of sites with undeveloped hydropower potential and the total megawatts of HES-modeled undeveloped hydropower potential.

Figure 4. Number of sites with undeveloped hydropower potential in the Mississippi river basins.

Figure 5. Megawatts of HES-modeled undeveloped hydropower potential in the Mississippi river basins.

Detailed Results

The appendices contain, in the form of HES-generated reports, detailed information about the undeveloped hydropower potential in Mississippi. The appendices contain the following information:

Appendix A summarizes the undeveloped hydropower potential by dam status groups. The number of sites, nonmodeled undeveloped hydropower potential, and HES-modeled undeveloped hydropower potential is provided based on the dam status.

Appendix B provides the hydropower resource assessment by river basin, which includes the project number, project name, stream name, dam status, nonmodeled undeveloped hydropower potential, and the HES-modeled undeveloped hydropower potential for each site. Subtotals are provided for each river basin.

Appendix C lists the project numbers, plant name, stream name, if a site is Federally owned,

nonmodeled undeveloped hydropower potential, and HES-modeled undeveloped hydropower potential. The sites are grouped by dam status.

Appendix D contains a resource database list for the 19 sites in Mississippi. Information includes plant name, stream, state, county, river basin and owner names, project number, nameplate and HES-modeled undeveloped hydropower potential, the unit and plant types, dam status, latitude, longitude, and the environmental factors that the HES uses to determine the PESF.

OBTAINING INDIVIDUAL STATE INFORMATION

Additional copies of the hydropower resource assessment results for individual states are available and can be obtained by writing or calling the authors or the National Technical Information Service (NTIS).

Telephone Orders—(703) 487-4650. NTIS sales desk and customer services are available

between 8:30 a.m. and 5:00 p.m., Eastern Standard Time.

Fax—(703) 321-8547. Customers may fax their orders to NTIS. These orders may be charged to a NTIS deposit account, American Express, VISA, or MasterCard.

Mail Orders—Mail orders should be sent to National Technical Information Service, Document Sales, 5285 Port Royal Road, Springfield, VA 22161. Call the sales desk for prices before placing an order.

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For Help in Tracing an Order—Call (703) 487-4650 and request the customer service option.

ADDITIONAL HYDROPOWER EVALUATION SOFTWARE INFORMATION

Additional information concerning the HES can be obtained by contacting Ben Rinehart or Jim Francfort at the addresses provided below. Copies of the software and the User's Manual may also be obtained from these individuals.

Ben Rinehart, Project Manager
Idaho National Engineering and Environmental Laboratory
P.O. Box 1625, MS 3830
Idaho Falls, ID 83415-3830
(208) 526-1002

Jim Francfort
Idaho National Engineering and Environmental Laboratory
P.O. Box 1625, MS 3830
Idaho Falls, ID 83415-3830
(208) 526-6787

Information concerning the State of Mississippi's involvement with the resource assessment or about the identified sites may be obtained by contacting:

Charles Clevenger
State of Mississippi
Chief, Dam Safety Division
Department of Environmental Quality
P.O. Box 10631
Jackson, MS 39289-0831
(601) 961-5204

REFERENCES

- Conner, A. M., J. E. Francfort, and B. N. Rinehart, 1996, *Uniform Criteria for U.S. Hydropower Resource Assessment, Hydropower Evaluation Software Status Report-II*, DOE/ID 10430.1, Idaho National Engineering Laboratory, Idaho Falls, Idaho.
- Francfort, J. E., S. D. Matthews, and B. N. Rinehart, 1991, *Hydropower Evaluation Software User's Manual*, DOE/ID-10338, Idaho National Engineering Laboratory, Idaho Falls, Idaho.

Appendix A
Summary Report

DATE: 10/17/97

H Y D R O P O W E R C A P A C I T Y S U M M A R Y

<u>State</u>	<u>Category</u>	<u>Number of Projects</u>	<u>Name Plate Capacity (KW)</u>	<u>HES Adjusted Capacity (KW)</u>
MS	With Power	0	0	0
	W/O Power	13	81320	62247.50
	Undeveloped	6	46700	29390
	STATE TOTAL	19	128020	91637.50

Appendix B

River Basins Report

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** River Basin MINOR RIVER BASINS					
07566	SUNFLOWER L&D 1 BIG SUNFLOWER R	U	800.00	0.90	720.00
MS005	YOUNGTON BIG BLACK R	U	28000.00	0.50	14000.00
10410	ARKABUTLA COLDWATER R	WO	10000.00	0.75	7500.00
10411	ENID YACONA R	WO	10400.00	0.75	7800.00
10412	GRENADA YALOBUSHA R	WO	17000.00	0.75	12750.00
10413	SARDIS LITTLE TALLAHATCHIE R	WO	21000.00	0.75	15750.00
** Subtotal **			87200.00		58520.00
** River Basin PASCAGOULA RIVER BASIN					
MS003	HARLESTON ESCATAWPA R	U	11000.00	0.90	9900.00
06607	OKATIBBEE DAM OKATIBBEE CR,CHICKASAWHAY R	WO	500.00	0.50	250.00
MS001	ARCHUSA CREEK ARCHUSA CR,CHICKASAWHAY R	WO	110.00	0.50	55.00
MS002	FLINT CREEK DAM FLINT CR,RED CR	WO	60.00	0.50	30.00
** Subtotal **			11670.00		10235.00
** River Basin PEARL RIVER BASIN					
MS004	YOCKANOOKANY YOCKANOOKANY R,PEARL R	U	3300.00	0.90	2970.00
07895	ROSS BARNETT PEARL R	WO	9500.00	0.90	8550.00
** Subtotal **			12800.00		11520.00

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** River Basin TOMBIGBEE RIVER BASIN					
09209	TENN-TOM LOCK D TOMBIGBEE R	U	1800.00	0.50	900.00
09210	TENN-TOM LOCK E TOMBIGBEE R	U	1800.00	0.50	900.00
07232	COLUMBUS L&D TOMBIGBEE R	WO	3600.00	0.75	2700.00
07233	ABERDEEN L&D TOMBIGBEE R	WO	3600.00	0.75	2700.00
09211	TENN-TOM LOCK C TOMBIGBEE R	WO	1500.00	0.75	1125.00
09212	TENN-TOM LOCK B(2) TOMBIGBEE R	WO	2250.00	0.75	1687.50
09213	TENN-TOM LOCK A TOMBIGBEE R	WO	1800.00	0.75	1350.00
** Subtotal **			16350.00		11362.50
*** Total ***			128020.00		91637.50

Appendix C
Mississippi Sites List

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** FERC Number 07566 SUNFLOWER L&D 1 BIG SUNFLOWER R	MS	U	800.00	0.90	720.00
** Subtotal **			800.00		720.00
** FERC Number 09209 TENN-TOM LOCK D TOMBIGBEE R	MS	U	1800.00	0.50	900.00
** Subtotal **			1800.00		900.00
** FERC Number 09210 TENN-TOM LOCK E TOMBIGBEE R	MS	U	1800.00	0.50	900.00
** Subtotal **			1800.00		900.00
** FERC Number MS003 HARLESTON ESCATAWPA R	MS	U	11000.00	0.90	9900.00
** Subtotal **			11000.00		9900.00
** FERC Number MS004 YOCKANOOKANY YOCKANOOKANY R, PEARL R	MS	U	3300.00	0.90	2970.00
** Subtotal **			3300.00		2970.00
** FERC Number MS005 YOUNGTON BIG BLACK R	MS	U	28000.00	0.50	14000.00
** Subtotal **			28000.00		14000.00
** FERC Number 06607 OKATIBBEE DAM OKATIBBEE CR, CHICKASAWHAY R	MS	WO	500.00	0.50	250.00

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** Subtotal **			500.00		250.00
** FERC Number 07232 COLUMBUS L&D TOMBIGBEE R	MS	WO	3600.00	0.75	2700.00
** Subtotal **			3600.00		2700.00
** FERC Number 07233 ABERDEEN L&D TOMBIGBEE R	MS	WO	3600.00	0.75	2700.00
** Subtotal **			3600.00		2700.00
** FERC Number 07895 ROSS BARNETT PEARL R	MS	WO	9500.00	0.90	8550.00
** Subtotal **			9500.00		8550.00
** FERC Number 09211 TENN-TOM LOCK C TOMBIGBEE R	MS	WO	1500.00	0.75	1125.00
** Subtotal **			1500.00		1125.00
** FERC Number 09212 TENN-TOM LOCK B(2) TOMBIGBEE R	MS	WO	2250.00	0.75	1687.50
** Subtotal **			2250.00		1687.50
** FERC Number 09213 TENN-TOM LOCK A TOMBIGBEE R	MS	WO	1800.00	0.75	1350.00
** Subtotal **			1800.00		1350.00

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** FERC Number 10410 ARKABUTLA COLDWATER R	MS	WO	10000.00	0.75	7500.00
** Subtotal **			10000.00		7500.00
** FERC Number 10411 ENID YACONA R	MS	WO	10400.00	0.75	7800.00
** Subtotal **			10400.00		7800.00
** FERC Number 10412 GRENADA YALOBUSHA R	MS	WO	17000.00	0.75	12750.00
** Subtotal **			17000.00		12750.00
** FERC Number 10413 SARDIS LITTLE TALLAHATCHIE R	MS	WO	21000.00	0.75	15750.00
** Subtotal **			21000.00		15750.00
** FERC Number MS001 ARCHUSA CREEK ARCHUSA CR,CHICKASAWHAY R	MS	WO	110.00	0.50	55.00
** Subtotal **			110.00		55.00
** FERC Number MS002 FLINT CREEK DAM FLINT CR,RED CR	MS	WO	60.00	0.50	30.00
** Subtotal **			60.00		30.00
*** Total ***			128020.00		91637.50

Appendix D

Individual Resource Database List

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
06607	OKATIBBEE DAM	OKATIBBEE CR,CHICKASAWHAY R	MS

County Name	River Basin
LAUDERDALE	PASCAGOULA RIVER BASIN

Class	Owner Name
R	CORPS OF ENGINEERS-MOBILE DISTRICT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
500.00	0.50	250.00	2100.00	1050

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3227.00	Longitude	8850.00
C	ROR	XX	WO				

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection	0.90		Wildlife Value		0.90
Wild/Scenic Tributary or Upstream/Downstream			Threatened/Endangered Fish		0.90
Wild/Scenic Location	0.90		Threatened/Endangered Wildlife		0.90
Cultural Value	0.90		Federal Land Code 103		0.90
Fish Presence Value	0.90		Federal Land Code 104	Y	0.75
Geologic Value	0.90		Federal Land Code 105		0.90
Historic Value	0.90		Federal Land Code 106		0.90
Other Value	0.90		Federal Land Code 107		0.90
Recreation Value	0.90		Federal Land Code 108		0.90
Scenic Value	0.90		Federal Land Code 198		0.90

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FERC Number	Plant Name	Stream	State Name
07232	COLUMBUS L&D	TOMBIGBEE R	MS

County Name	River Basin
LOWNDES	TOMBIGBEE RIVER BASIN

Class		Owner Name		
R		CORPS OF ENGINEERS-MOBILE DISTRICT		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
3600.00	0.75	2700.00	17450.00	13087.50

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3331.00 8829.00
C	ROR	XX	WO		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value		0.90
Wild/Scenic Tributary or Upstream/Downstream			Threatened/Endangered Fish		0.90
Wild/Scenic Location		0.90	Threatened/Endangered Wildlife		0.90
Cultural Value		0.90	Federal Land Code 103		0.90
Fish Presence Value		0.90	Federal Land Code 104	Y	0.75
Geologic Value		0.90	Federal Land Code 105		0.90
Historic Value		0.90	Federal Land Code 106		0.90
Other Value		0.90	Federal Land Code 107		0.90
Recreation Value		0.90	Federal Land Code 108		0.90
Scenic Value		0.90	Federal Land Code 198		0.90

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FERC Number	Plant Name	Stream	State Name
07233	ABERDEEN L&D	TOMBIGBEE R	MS

County Name	River Basin
MONROE	TOMBIGBEE RIVER BASIN

Class	Owner Name
R	CORPS OF ENGINEERS-MOBILE DISTRICT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
3600.00	0.75	2700.00	18250.00	13687.50

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3350.00	Longitude	8831.00
C	ROR	XX	WO				

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection	0.90		Wildlife Value		0.90
Wild/Scenic Tributary or Upstream/Downstream			Threatened/Endangered Fish		0.90
Wild/Scenic Location	0.90		Threatened/Endangered Wildlife		0.90
Cultural Value	0.90		Federal Land Code 103		0.90
Fish Presence Value	0.90		Federal Land Code 104	Y	0.75
Geologic Value	0.90		Federal Land Code 105		0.90
Historic Value	0.90		Federal Land Code 106		0.90
Other Value	0.90		Federal Land Code 107		0.90
Recreation Value	0.90		Federal Land Code 108		0.90
Scenic Value	0.90		Federal Land Code 198		0.90

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
07566	SUNFLOWER L&D 1	BIG SUNFLOWER R	MS

County Name	River Basin
WASHINGTON	MINOR RIVER BASINS

Class		Owner Name			
R		D&W JONES, INC			
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)	
800.00	0.90	720.00	2880.00	2592	

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3339.00 8946.00
C	STG	XX	U		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
07895	ROSS BARNETT	PEARL R	MS

County Name	River Basin
RANKIN	PEARL RIVER BASIN

Class	Owner Name
R	PEARL RIVER VALLEY WATER DISTRICT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
9500.00	0.90	8550.00	28500.00	25650

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3224.00
C	ROR	XX	WO	Longitude	9004.00

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection	0.90		Wildlife Value	0.90	
Wild/Scenic Tributary or Upstream/Downstream			Threatened/Endangered Fish	0.90	
Wild/Scenic Location	0.90		Threatened/Endangered Wildlife	0.90	
Cultural Value	0.90		Federal Land Code 103	0.90	
Fish Presence Value	0.90		Federal Land Code 104	0.90	
Geologic Value	0.90		Federal Land Code 105	0.90	
Historic Value	0.90		Federal Land Code 106	0.90	
Other Value	0.90		Federal Land Code 107	0.90	
Recreation Value	0.90		Federal Land Code 108	0.90	
Scenic Value	0.90		Federal Land Code 198	0.90	

R E S O U R C E D A T A B A S E L I S T I N G

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FERC Number	Plant Name	Stream	State Name
09209	TENN-TOM LOCK D	TOMBIGBEE R	MS

County Name	River Basin
ITAWAMBA	TOMBIGBEE RIVER BASIN

Class	Owner Name
R	CORPS OF ENGINEERS-MOBILE DISTRICT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1800.00	0.50	900.00	13200.00	6600

Unit Type	Plant Type	Project Status	Dam Status	Latitude	Longitude
C	ROR	XX	U	3416.00	8826.00

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.50
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
09210	TENN-TOM LOCK E	TOMBIGBEE R	MS

County Name	River Basin
ITAWAMBA	TOMBIGBEE RIVER BASIN

Class	Owner Name
R	CORPS OF ENGINEERS-MOBILE DISTRICT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1800.00	0.50	900.00	13200.00	6600

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3416.00	Longitude	8826.00
C	ROR	XX	U				

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.50
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
09211	TENN-TOM LOCK C	TOMBIGBEE R	MS

County Name	River Basin
ITAWAMBA	TOMBIGBEE RIVER BASIN

Class	Owner Name
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R	CORPS OF ENGINEERS-MOBILE DISTRICT
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Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1500.00	0.75	1125.00	11200.00	8400

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3416.00 8826.00
C	ROR	XX	WO		

Factor	Exist	Prob	Factor	Exist	Prob
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Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
09212	TENN-TOM LOCK B(2)	TOMBIGBEE R	MS

County Name	River Basin
ITAWAMBA	TOMBIGBEE RIVER BASIN

Class	Owner Name
R	CORPS OF ENGINEERS-MOBILE DISTRICT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
2250.00	0.75	1687.50	18000.00	13500

Unit Type	Plant Type	Project Status	Dam Status	Latitude	Longitude
C	ROR	XX	WO	3404.00	8826.00

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value		0.90
Wild/Scenic Tributary or			Threatened/Endangered Fish		0.90
Upstream/Downstream			Threatened/Endangered Wildlife		0.90
Wild/Scenic Location		0.90	Federal Land Code 103		0.90
Cultural Value		0.90	Federal Land Code 104	Y	0.75
Fish Presence Value		0.90	Federal Land Code 105		0.90
Geologic Value		0.90	Federal Land Code 106		0.90
Historic Value		0.90	Federal Land Code 107		0.90
Other Value		0.90	Federal Land Code 108		0.90
Recreation Value		0.90	Federal Land Code 198		0.90
Scenic Value		0.90			

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FERC Number	Plant Name	Stream	State Name
09213	TENN-TOM LOCK A	TOMBIGBEE R	MS

County Name	River Basin
MONROE	TOMBIGBEE RIVER BASIN

Class	Owner Name
R	CORPS OF ENGINEERS-MOBILE DISTRICT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1800.00	0.75	1350.00	12600.00	9450

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3401.00 8830.00
C	ROR	XX	WO		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
10410	ARKABUTLA	COLDWATER R	MS

County Name	River Basin
DE SOTO	MINOR RIVER BASINS

Class	Owner Name
R	CORPS OF ENGINEERS-VICKSBURG DISTR

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
10000.00	0.75	7500.00	29000.00	21750

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3445.00 9007.00
C	STG	XX	WO		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
10411	ENID	YACONA R	MS

County Name	River Basin
YALOBUSHA	MINOR RIVER BASINS

Class	Owner Name
R	CORPS OF ENGINEERS-VICKSBURG DISTR

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
10400.00	0.75	7800.00	25000.00	18750

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3409.00 8954.00
C	STG	XX	WO		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
10412	GRENADA	YALOBUSHA R	MS

County Name	River Basin
GRENADA	MINOR RIVER BASINS

Class	Owner Name
R	CORPS OF ENGINEERS-VICKSBURG DISTR

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
17000.00	0.75	12750.00	50000.00	37500

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3349.00	Longitude	8946.00
C	STG	XX	WO				

Factor	Exist	Prob	Factor	Exist	Prob
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Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	Y 0.75
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
10413	SARDIS	LITTLE TALLAHATCHIE R	MS

County Name	River Basin
PANOLA	MINOR RIVER BASINS

Class	Owner Name
R	CORPS OF ENGINEERS-VICKSBURG DISTR

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
21000.00	0.75	15750.00	60000.00	45000

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3424.00
C	STG	XX	WO	Longitude	8947.00

Factor	Exist	Prob	Factor	Exist	Prob
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Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or		Threatened/Endangered Fish	0.90
Upstream/Downstream		Threatened/Endangered Wildlife	0.90
Wild/Scenic Location	0.90	Federal Land Code 103	0.90
Cultural Value	0.90	Federal Land Code 104	Y 0.75
Fish Presence Value	0.90	Federal Land Code 105	0.90
Geologic Value	0.90	Federal Land Code 106	0.90
Historic Value	0.90	Federal Land Code 107	0.90
Other Value	0.90	Federal Land Code 108	0.90
Recreation Value	0.90	Federal Land Code 198	0.90
Scenic Value	0.90		

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FERC Number	Plant Name	Stream	State Name
MS001	ARCHUSA CREEK	ARCHUSA CR,CHICKASAWHAY R	MS

County Name	River Basin
CLARKE	PASCAGOULA RIVER BASIN

Class		Owner Name	
M		PAT HARRISON WTRWY DISTRICT	

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
110.00	0.50	55.00	320.00	160

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	0.00 0.00
C	ROR		WO		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.75
Wild/Scenic Tributary or Upstream/Downstream			Threatened/Endangered Fish		0.90
Wild/Scenic Location		0.90	Threatened/Endangered Wildlife		0.90
Cultural Value	Y	0.75	Federal Land Code 103		0.90
Fish Presence Value	Y	0.75	Federal Land Code 104		0.90
Geologic Value	Y	0.90	Federal Land Code 105		0.90
Historic Value	Y	0.75	Federal Land Code 106		0.90
Other Value		0.90	Federal Land Code 107		0.90
Recreation Value	Y	0.75	Federal Land Code 108		0.90
Scenic Value	Y	0.90	Federal Land Code 198		0.90

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FERC Number	Plant Name	Stream	State Name
MS002	FLINT CREEK DAM	FLINT CR,RED CR	MS

County Name	River Basin
STONE	PASCAGOULA RIVER BASIN

Class	Owner Name
M	PAT HARRISON WTRWY DISTRICT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
60.00	0.50	30.00	173.00	86.50

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3051.00	Longitude	8849.00
C	ROR		WO				

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.75
Wild/Scenic Tributary or Upstream/Downstream			Threatened/Endangered Fish		0.90
Wild/Scenic Location		0.90	Threatened/Endangered Wildlife		0.90
Cultural Value		0.90	Federal Land Code 103		0.90
Fish Presence Value	Y	0.75	Federal Land Code 104	Y	0.75
Geologic Value	Y	0.90	Federal Land Code 105		0.90
Historic Value		0.90	Federal Land Code 106		0.90
Other Value		0.90	Federal Land Code 107		0.90
Recreation Value	Y	0.75	Federal Land Code 108		0.90
Scenic Value	Y	0.90	Federal Land Code 198		0.90

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FERC Number	Plant Name	Stream	State Name
MS003	HARLESTON	ESCATAWPA R	MS

County Name	River Basin
GEORGE	PASCAGOULA RIVER BASIN

Class	Owner Name
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Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
11000.00	0.90	9900.00	20200.00	18180

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3044.00 8828.00
C	STG		U		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
MS004	YOCKANOOKANY	YOCKANOOKANY R, PEARL R	MS

County Name	River Basin
LEAKE	PEARL RIVER BASIN

Class	Owner Name
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Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
3300.00	0.90	2970.00	10100.00	9090

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	0.00 0.00
C	STG		U		

Factor	Exist Prob	Factor	Exist Prob
Wild/Scenic Protection	0.90	Wildlife Value	0.90
Wild/Scenic Tributary or Upstream/Downstream		Threatened/Endangered Fish	0.90
Wild/Scenic Location	0.90	Threatened/Endangered Wildlife	0.90
Cultural Value	0.90	Federal Land Code 103	0.90
Fish Presence Value	0.90	Federal Land Code 104	0.90
Geologic Value	0.90	Federal Land Code 105	0.90
Historic Value	0.90	Federal Land Code 106	0.90
Other Value	0.90	Federal Land Code 107	0.90
Recreation Value	0.90	Federal Land Code 108	0.90
Scenic Value	0.90	Federal Land Code 198	0.90

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FERC Number	Plant Name	Stream	State Name
MS005	YOUNGTON	BIG BLACK R	MS

County Name	River Basin
WARREN	MINOR RIVER BASINS

Class	Owner Name
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Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
28000.00	0.50	14000.00	96000.00	48000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3229.00 9034.00
C	STG		U		

Factor	Exist	Prob	Factor	Exist	Prob
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Wild/Scenic Protection		0.90	Wildlife Value	Y	0.75
Wild/Scenic Tributary or			Threatened/Endangered Fish		0.90
Upstream/Downstream			Threatened/Endangered Wildlife		0.90
Wild/Scenic Location		0.90	Federal Land Code 103		0.90
Cultural Value	Y	0.75	Federal Land Code 104		0.90
Fish Presence Value	Y	0.75	Federal Land Code 105		0.90
Geologic Value		0.90	Federal Land Code 106		0.90
Historic Value	Y	0.75	Federal Land Code 107		0.90
Other Value		0.90	Federal Land Code 108		0.90
Recreation Value	Y	0.75	Federal Land Code 198		0.90
Scenic Value	Y	0.90			