U.S. Hydropower Resource Assessment
for
Missouri

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ABSTRACT

The Department of Energy is developing an estimate of the hydropower development potential in this country. The Hydropower Evaluation Software (HES) is a computer model that was developed by the Idaho National Engineering Laboratory for this purpose. The HES measures the potential 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 dBASE menu-driven software application 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 details the resource assessment results for the state of Missouri.

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U.S. Hydropower Resource Assessment for Missouri

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 potential hydropower resources were not well defined. As a result, the Department of Energy established an interagency Hydropower Resource Assessment Team to ascertain the 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 hydropower potential in Missouri (as well as several other states). This report presents the results of the hydropower resource assessment for the state of Missouri. Pumped storage hydropower potential is not included.

The HES was developed as a tool to measure hydropower potential by regional power marketing administrations and state energy agencies, because they were the most likely to have and need accurate hydropower information. The HES was not intended to provide precise development factors for individual sites, but to provide regional or state capacity 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 hydropower potential totals. The information for the resource assessment was compiled from the Federal Energy Regulatory Commission's Hydropower Resource 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,

the Status Report (Francfort, Moore, Rinehart, 1993) for an overview of all resource assessment activities to date.

Model Development

Hydropower Evaluation Software, both a probability-factor computer model and a data base, is a dBASE, menu-driven software application 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. Suitability factors depend on environmental attributes of a 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) absence of environmental concern can have little or no effect on the likelihood of site development (for a suitability factor of 0.9). A combination of attributes results in a lower suitability factor because multiple environmental considerations 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 potential hydropower sites in the United States for use as a planning tool to determine the viable national hydropower potential. Potential hydropower is not limited to the development of new sites; it also includes the development of additional hydropower at sites that currently have hydropower but are not developed to their full potential. This hydropower potential is a source of nonpolluting, renewable energy available to meet the growing power needs of the United States. The HES should make

this goal attainable and help assure a set of uniform criteria for national assessment.

Dam Status

The effects of environmental attributes vary by dam status. The dam status classifications follow the Federal Energy Regulatory Commission (FERC) standard, which is

- W = Developed hydropower site with power. The total hydropower capacity has not been fully developed. Only the undeveloped capacity is discussed in this report.
- W/O = Developed site without power generation. The site has some type of developed impoundment or diversion structure but no hydropower generating capacity.
- 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 29 sites have been identified and assessed for their hydropower potential. Information as to the potential megawatts of capacity for 8 of the sites was not available; however, these sites have been identified as having hydropower potential and are included in the group of 29. The Hydropower Evaluation Software results for site capacities range from 235 kilowatts to 83 megawatts. Most of the sites have potential capacities of under 5 megawatts (Figure 1).

The unadjusted hydropower potential for Missouri was identified as being 697 megawatts. The Hydropower Evaluation Software results lower this estimate 54% to 323 megawatts. The greatest reduction in undeveloped potential occurs at sites with no physical structures present. These undeveloped sites have a Hydropower Evaluation Software estimated capacity of 38 megawatts, a 90% reduction in capacity (Figure 2). All 11 of these sites have wildlife values in addition to either recreation values (10 sites) or fishery values (1 site). The number of sites does not change, only the identified capacity is reassessed (Figure 3).

Figure 1. Number of sites with various capacity potentials. The unknown category is for sites that have hydropower potential but the size of the potential is undefined.

Figure 2. The Hydropower Evaluation Software identified potential hydropower capacity and the unadjusted potential capacity.

Figure 3. The number of sites with potential hydropower capacity and the total megawatts of potential capacity.

The 29 identified sites are located within 9 major river basins and several minor river basins. The number of sites per river basin ranges from 1 each in several river basins to 8 sites in the Osage River Basin (Figure 4). The Illinois River Basin has the most undeveloped potential hydropower capacity of the Missouri river basins (Figure 5).

Detailed Results

The appendices contain, in the form of Hydropower Evaluation Software generated reports, detailed information of the potential hydropower capacity in Missouri. The appendices contain the following information:

Appendix A The hydropower capacity summary for Missouri categorizes sites by dam status. The number of sites, unadjusted capacity, and Hydropower Evaluation Software adjusted capacity are provided based on the dam status.

Appendix B The hydropower resource assessment by river basin includes the FERC project number, project name, stream name, dam status,

unadjusted capacity, and Hydropower Evaluation Software adjusted capacity for each of the individual sites. Subtotals are provided for each river basin.

Appendix C This is a listing of the project numbers, plant name, stream name, if a site is Federally owned, unadjusted capacity, and Hydropower Evaluation Software adjusted capacity. The sites are grouped by dam status.

Appendix D This section contains a resource database listing for each of the 29 sites in Missouri. Information includes plant, stream, state, county, river basin and owner names; project number; name plate and Hydropower Evaluation Software adjusted capacity ratings; the unit and plant types, dam status; latitude; longitude; and the environmental factors that the Hydropower Evaluation Software uses to determine the project environmental suitability factor.

Figure 4. Number of sites with potential hydropower capacity in the Missouri river basins.

Figure 5. Potential hydropower capacity in the Missouri river basins.

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 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.

Method of Payment – Customers may pay for reports (and other NTIS products and services) by (a) credit card (American Express, Visa, or MasterCard); (b) check or money order on a United States bank payable to NTIS; (c) a NTIS deposit account; or (d) by asking to be billed (add \$7.50 per order, United States, Canada, and Mexico, only).

Handling Fee – A \$3.00 handling fee per total order applies to orders from the United States, Canada, and Mexico. Handling charges do not apply to rush order service or pick-up orders.

Postage and Shipping – Orders are shipped first class mail, or equivalent, to addresses in the United States, Canada, and Mexico.

Order Turnaround Time – Orders for technical reports generally are shipped within 2 to 8 days of receipt. For faster service, NTIS offers rush order service.

Rush Order Service – Call 1-800-533-NTIS. In Virginia, Canada, and Mexico call (703) 487-4700. For NTIS rush order service add \$15.00 per item. This guarantees that an order

will be processed through NTIS within 24 hours of its receipt. These orders receive immediate, individual attention. The items ordered are delivered by first call mail. Call NTIS for information on rush order service for computer products.

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 Hydropower Evaluation Software 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
Idaho National Engineering Laboratory
P.O. Box 1625
Idaho Falls, ID 83415-3830
(208) 526-1002

Jim Francfort
Idaho National Engineering Laboratory
P.O. Box 1625
Idaho Falls, ID 83415-3875
(208) 526-6787

Information concerning the state of Missouri involvement with the resource assessment or about the identified sites may be obtained by contacting:

Steve McIntosh
Water Resources Program
Missouri Department of Natural Resources
205 Jefferson Street
(314) 751-2867

REFERENCES

- 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.
- Francfort, J. E., K. M. Moore, and B. N. Rinehart, 1993, *Uniform Criteria for U.S. Hydropower Resource Assessment, Hydropower Evaluation Software Status Report*, DOE/ID-10430, Idaho National Engineering Laboratory, Idaho Falls, Idaho.

Appendix A

Hydropower Capacity Summary

DATE: 12/21/93

HYDROPOWER CAPACITY SUMMARY

State	Category	Number of Projects	Name Plate Capacity (KW)	HES Adjusted Capacity (KW)
MO	With Power	6	115800	104220
	W/O Power	12	203356	180940.40
	Undeveloped	11	377600	37760
	STATE TOTAL	29	696756	322920.40
TOTALS	With Power	6	115800	104220
	W/O Power	12	203356	180940.40
	Undeveloped	11	377600	37760
GRAND TOTAL		29	696756	322920.40

Appendix B

Hydropower Resource Assessment by River Basin

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** River Basin GASCONADE RIVER BASIN					
MO003	RICH FOUNTAIN GASCONADE R	U	35000.00	0.10	3500.00
MO004	ARLINGTON GASCONADE R	U	30000.00	0.10	3000.00
MO005	RICHLAND GASCONADE R	U	25000.00	0.10	2500.00
** Subtotal **			90000.00		9000.00
** River Basin GRAND-NEOSHO RIVER BASIN					
MO013	GRAND FALLS SHOAL CR, SPRING R	WO	0.00	0.50	0.00
** Subtotal **			0.00		0.00
** River Basin ILLINOIS RIVER BASIN					
10842A	MISSISSIPPI L& D 24 MISSISSIPPI R	WO	50000.00	0.90	45000.00
10848A	MISSISSIPPI L&D 25 MISSISSIPPI R	WO	50000.00	0.90	45000.00
** Subtotal **			100000.00		90000.00
** River Basin LOWER WHITE RIVER BASIN					
10744A	CLEARWATER BLACK R	WO	5270.00	0.90	4743.00
** Subtotal **			5270.00		4743.00
** River Basin MERAMEC RIVER BASIN					
03246A	MISSISSIPPI L&D 26R MISSISSIPPI R	WO	78000.00	0.90	70200.00
** Subtotal **			78000.00		70200.00
** River Basin MINOR RIVER BASINS					
MO007	CHILLICOTHE GRAND R	U	18000.00	0.10	1800.00

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
MO009	PATTONSBURG GRAND R	U	40000.00	0.10	4000.00
** Subtotal **			58000.00		5800.00
** River Basin OSAGE RIVER BASIN					
MO006	NIANGUA NIANGUA R	U	9700.00	0.10	970.00
MO015	LOCK NO 2 OSAGE R	U	20000.00	0.10	2000.00
00459A	OSAGE (BAGNELL) OSAGE R	W	91800.00	0.90	82620.00
02561A	NIANGUA NIANGUA R	W	0.00	0.90	0.00
MO016	STOCKTON SAC R	W	0.00	0.90	0.00
MO017	HARRY S TRUMAN 3/ OSAGE R	W	0.00	0.90	0.00
02542X	OSCEOLA OSAGE R	WO	0.00	0.90	0.00
10718A	POMME DE TERRE POMME DE TERRE R	WO	4625.00	0.90	4162.50
** Subtotal **			126125.00		89752.50
** River Basin SALT RIVER BASIN					
08985X	MISSISSIPPI L&D 21 MISSISSIPPI R	WO	10000.00	0.90	9000.00
MO014	CLARENCE F CANNON 3/ SALT R	WO	0.00	0.90	0.00
** Subtotal **			10000.00		9000.00
** River Basin ST FRANCIS RIVER BASIN					
MO001	ROWLAND CHURCH ST FRANCIS R	U	70000.00	0.10	7000.00

HYDROPOWER RESOURCE ASSESSMENT BY RIVER BASIN

FERC Number	Plant Name/ Stream	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
MO002	MARBLE CREEK ST FRANCIS R	U	24000.00	0.10	2400.00
07529X	WAPPAPELLO ST FRANCIS R	WO	5200.00	0.50	2600.00
** Subtotal **			99200.00		12000.00
** River Basin UPPER WHITE RIVER BASIN					
MO008	GALENA ALT JAMES R	U	43000.00	0.10	4300.00
MO010	HOLLOW NORTH FORK R	U	62900.00	0.10	6290.00
02221A	OZARK BEACH WHITE R	W	24000.00	0.90	21600.00
MO012	TABLE ROCK WHITE R	W	0.00	0.90	0.00
09023X	TABLE ROCK TABLE ROCK LAKE	WO	261.00	0.90	234.90
MO011	OZARK FINLEY CR, JAMES R	WO	0.00	0.90	0.00
** Subtotal **			130161.00		32424.90
*** Total ***			696756.00		322920.40

Appendix C
Missouri (MO) Sites

HYDROPOWER RESOURCE ASSESSMENT BY STATE

FERC Number	Plant Name/ Stream	Fed. Proj	Name Plate Rating (KW)	PESF	KW * PESF
** State Name MO					
** Dam Status: W					
02561A	NIANGUA NIANGUA R		0.00	0.90	0.00
MO012	TABLE ROCK WHITE R	Yes	0.00	0.90	0.00
MO016	STOCKTON SAC R	Yes	0.00	0.90	0.00
MO017	HARRY S TRUMAN 3/ OSAGE R	Yes	0.00	0.90	0.00
00459A	OSAGE (BAGNELL) OSAGE R		91800.00	0.90	82620.00
02221A	OZARK BEACH WHITE R		24000.00	0.90	21600.00
* Subsubtotal *			115800.00		104220.00
** Subtotal **			115800.00		104220.00
*** Total ***			115800.00		104220.00

HYDROPOWER RESOURCE ASSESSMENT BY STATE

FERC Number	Plant Name/ Stream	Fed. Proj	Name Plate Rating (KW)	PESF	KW * PESF
** State Name MO					
** Dam Status: WO					
MO014	CLARENCE F CANNON 3/ SALT R	Yes	0.00	0.90	0.00
03246A	MISSISSIPPI L&D 26R MISSISSIPPI R		78000.00	0.90	70200.00
02542X	OSCEOLA OSAGE R		0.00	0.90	0.00
09023X	TABLE ROCK TABLE ROCK LAKE		261.00	0.90	234.90
MO011	OZARK FINLEY CR, JAMES R		0.00	0.90	0.00
MO013	GRAND FALLS SHOAL CR, SPRING R		0.00	0.50	0.00
07529X	WAPPAPELLO ST FRANCIS R		5200.00	0.50	2600.00
08985X	MISSISSIPPI L&D 21 MISSISSIPPI R		10000.00	0.90	9000.00
10718A	POMME DE TERRE POMME DE TERRE R		4625.00	0.90	4162.50
10744A	CLEARWATER BLACK R		5270.00	0.90	4743.00
10842A	MISSISSIPPI L& D 24 MISSISSIPPI R		50000.00	0.90	45000.00
10848A	MISSISSIPPI L&D 25 MISSISSIPPI R		50000.00	0.90	45000.00
* Subsubtotal *			203356.00		180940.40
** Subtotal **			203356.00		180940.40
*** Total ***			203356.00		180940.40

HYDROPOWER RESOURCE ASSESSMENT BY STATE

FERC Number	Plant Name/ Stream	Fed. Proj	Name Plate Rating (KW)	PESF	KW * PESF
** State Name MO					
** Dam Status: U					
MO001	ROWLAND CHURCH ST FRANCIS R		70000.00	0.10	7000.00
MO002	MARBLE CREEK ST FRANCIS R		24000.00	0.10	2400.00
MO006	NIANGUA NIANGUA R		9700.00	0.10	970.00
MO007	CHILLICOTHE GRAND R		18000.00	0.10	1800.00
MO008	GALENA ALT JAMES R		43000.00	0.10	4300.00
MO010	HOLLOW NORTH FORK R		62900.00	0.10	6290.00
MO003	RICH FOUNTAIN GASCONADE R	Yes	35000.00	0.10	3500.00
MO004	ARLINGTON GASCONADE R	Yes	30000.00	0.10	3000.00
MO005	RICHLAND GASCONADE R	Yes	25000.00	0.10	2500.00
MO009	PATTONSBURG GRAND R	Yes	40000.00	0.10	4000.00
MO015	LOCK NO 2 OSAGE R	Yes	20000.00	0.10	2000.00
* Subsubtotal *			377600.00		37760.00
** Subtotal **			377600.00		37760.00
*** Total ***			377600.00		37760.00

DATE: 12/21/93

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>
MO	With Power	6	115800	104220
	W/O Power	12	203356	180940.40
	Undeveloped	11	377600	37760
	STATE TOTAL	29	696756	322920.40
TOTALS	With Power	6	115800	104220
	W/O Power	12	203356	180940.40
	Undeveloped	11	377600	37760
GRAND TOTAL		29	696756	322920.40

Appendix D

Resource Database Listing

RESOURCE DATABASE LISTING

DATE: 10/05/93

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FERC Number	Plant Name	Stream	State Name
00459A	OSAGE (BAGNELL)	OSAGE R	MO

County Name	River Basin
MILLER	OSAGE RIVER BASIN

Class	Owner Name
P	UNION ELECTRIC CO

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
91800.00	0.90	82620.00	241000.00	216900

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3807.00 9248.00
C	CMB	MO	W		

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	Y	0.90

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
02221A	OZARK BEACH	WHITE R	MO

County Name	River Basin
TANEY	UPPER WHITE RIVER BASIN

Class	Owner Name
P	EMPIRE DIST ELEC CO

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
24000.00	0.90	21600.00	149760.00	134784

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3639.00 9307.00
C	ROR	MO	W		

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	Y	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
02542X	OSCEOLA	OSAGE R	MO

County Name	River Basin
ST CLAIR	OSAGE RIVER BASIN

Class	Owner Name			
P	MISSOURI PUB SERV CO			
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
0.00	0.90	0.00	0.00	0

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3808.00
Z	ROR	XX	WO	Longitude	9328.00

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		0.90
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	Y	0.90
Scenic Value		0.90			

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
02561A	NIANGUA	NIANGUA R	MO
County Name	River Basin		
CAMDEN	OSAGE RIVER BASIN		
Class	Owner Name		
C	SHO ME POWER CORP		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)
0.00	0.90	0.00	0.00
			PESF Annual Energy Rating (MWh)
			0
Unit Type	Plant Type	Project Status	Dam Status
Z	ROR	MO	W
Latitude	3756.00		
Longitude	9251.00		
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	Y 0.90

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
03246A	MISSISSIPPI L&D 26R	MISSISSIPPI R	MO

County Name	River Basin
ST CHARLES	MERAMEC RIVER BASIN

Class	Owner Name
M	MO JOINT MUN ELEC UTY COMM

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
78000.00	0.90	70200.00	400000.00	360000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3854.00 9012.00
C	ROR	MO	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		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	Y	0.90

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
07529X	WAPPAPELLO	ST FRANCIS R	MO

County Name	River Basin
WAYNE	ST FRANCIS RIVER BASIN

Class	Owner Name

R	MISSOURI HYDRO ASSOC

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
5200.00	0.50	2600.00	20000.00	10000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3656.00 9017.00
C	ROR	XX	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		0.90	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	Y	0.90

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FERC Number	Plant Name	Stream	State Name
08985X	MISSISSIPPI L&D 21	MISSISSIPPI R	MO

County Name	River Basin
MARION	SALT RIVER BASIN

Class	Owner Name
R	QUINCY ASSOC

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
10000.00	0.90	9000.00	48000.00	43200

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3954.00 9126.00
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			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	Y	0.90

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FERC Number	Plant Name	Stream	State Name
09023X	TABLE ROCK	TABLE ROCK LAKE	MO

County Name	River Basin
TANEY	UPPER WHITE RIVER BASIN

Class	Owner Name
P	JDJ ENERGY CO

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
261.00	0.90	234.90	2061.00	1854.90

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3636.00 9319.00
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		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	Y	0.90

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FERC Number	Plant Name	Stream	State Name
10718A	POMME DE TERRE	POMME DE TERRE R	MO

County Name	River Basin
HICKORY	OSAGE RIVER BASIN

Class	Owner Name

R	JDJ ENERGY CO

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
4625.00	0.90	4162.50	12450.00	11205

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3754.00
C	STG	PO	WO	Longitude	9319.00

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	Y	0.90

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FERC Number	Plant Name	Stream	State Name		
10744A	CLEARWATER	BLACK R	MO		
County Name	River Basin				
WAYNE	LOWER WHITE RIVER BASIN				
Class	Owner Name				
R	CLEARWATER HYDRO ASSOC				
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)	
5270.00	0.90	4743.00	25390.00	22851	
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3706.00 9046.00
C	ROR	PO	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		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	Y	0.90

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FERC Number	Plant Name	Stream	State Name
10842A	MISSISSIPPI L& D 24	MISSISSIPPI R	MO

County Name	River Basin
PIKE	ILLINOIS RIVER BASIN

Class	Owner Name
R	CLARKSVILLE HYDRO ASSOC

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
50000.00	0.90	45000.00	245000.00	220500

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3923.00 9054.00
C	ROR	PA	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		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	Y	0.90

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FERC Number	Plant Name	Stream	State Name
10848A	MISSISSIPPI L&D 25	MISSISSIPPI R	MO
County Name	River Basin		
LINCOLN	ILLINOIS RIVER BASIN		
Class	Owner Name		
R	WINFIELD HYDRO ASSOC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)
50000.00	0.90	45000.00	246000.00
			PESF Annual Energy Rating (MWh)
			221400
Unit Type	Plant Type	Project Status	Dam Status
C	ROR	PA	WO
Latitude	Longitude	3901.00	9041.00
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	Y 0.90

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FERC Number	Plant Name	Stream	State Name
MO001	ROWLAND CHURCH	ST FRANCIS R	MO

County Name	River Basin
WAYNE	ST FRANCIS RIVER BASIN

Class	Owner Name

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
70000.00	0.10	7000.00	100000.00	10000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3721.00 9022.00
C	ROR	ZZ	U		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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		0.90
Fish Presence Value		0.90	Federal Land Code 105		0.90
Geologic Value	Y	0.50	Federal Land Code 106		0.90
Historic Value	Y	0.50	Federal Land Code 107		0.90
Other Value		0.90	Federal Land Code 108		0.90
Recreation Value	Y	0.25	Federal Land Code 198	Y	0.90
Scenic Value	Y	0.50			

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FERC Number	Plant Name	Stream	State Name
MO002	MARBLE CREEK	ST FRANCIS R	MO

County Name	River Basin
MADISON	ST FRANCIS RIVER BASIN

Class	Owner Name

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
24000.00	0.10	2400.00	37000.00	3700

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3733.00 9024.00
C	STG	ZZ	U		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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	Y	0.50	Federal Land Code 105		0.90
Historic Value	Y	0.50	Federal Land Code 106		0.90
Other Value		0.90	Federal Land Code 107		0.90
Recreation Value	Y	0.25	Federal Land Code 108		0.90
Scenic Value	Y	0.50	Federal Land Code 198	Y	0.90

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FERC Number	Plant Name	Stream	State Name
MO003	RICH FOUNTAIN	GASCONADE R	MO

County Name	River Basin
OSAGE	GASCONADE RIVER BASIN

Class	Owner Name
F	CORPS OF ENGINEERS

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
35000.00	0.10	3500.00	96000.00	9600

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3829.00
C	STG	ZZ	U	Longitude	9151.00

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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	Y	0.25	Federal Land Code 108		0.90
Scenic Value		0.90	Federal Land Code 198	Y	0.90

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FERC Number	Plant Name	Stream	State Name
MO004	ARLINGTON	GASCONADE R	MO

County Name	River Basin
PHELPS	GASCONADE RIVER BASIN

Class	Owner Name
F	CORPS OF ENGINEERS

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
30000.00	0.10	3000.00	120000.00	12000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3759.00 9158.00
C	STG	ZZ	U		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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	Y	0.25	Federal Land Code 108		0.90
Scenic Value		0.90	Federal Land Code 198	Y	0.90

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FERC Number	Plant Name	Stream	State Name
MO005	RICHLAND	GASCONADE R	MO

County Name	River Basin
PULASKI	GASCONADE RIVER BASIN

Class		Owner Name	
F		CORPS OF ENGINEERS	
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)
25000.00	0.10	2500.00	49000.00
			PESF Annual Energy Rating (MWh)
			4900

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
C	STG	ZZ	U	3757.00 9156.00

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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	Y	0.25	Federal Land Code 108		0.90
Scenic Value		0.90	Federal Land Code 198	Y	0.90

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FERC Number	Plant Name	Stream	State Name		
MO006	NIANGUA	NIANGUA R	MO		
County Name	River Basin				
DALLAS	OSAGE RIVER BASIN				
Class	Owner Name				
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)	
9700.00	0.10	970.00	32000.00	3200	
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3754.00 9251.00
C	STG	ZZ	U		
Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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	Y	0.25	Federal Land Code 108		0.90
Scenic Value		0.90	Federal Land Code 198	Y	0.90

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FERC Number	Plant Name	Stream	State Name
MO007	CHILLICOTHE	GRAND R	MO

County Name	River Basin
LIVINGSTON	MINOR RIVER BASINS

Class	Owner Name

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
18000.00	0.10	1800.00	95000.00	9500

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3939.00
C	STG	ZZ	U	Longitude	9331.00

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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		0.90
Fish Presence Value	Y	0.25	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	Y	0.90
Scenic Value		0.90			

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FERC Number	Plant Name	Stream	State Name
MO008	GALENA ALT	JAMES R	MO

County Name	River Basin
STONE	UPPER WHITE RIVER BASIN

Class	Owner Name

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
43000.00	0.10	4300.00	60000.00	6000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3649.00 9326.00
C	STG	ZZ	U		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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	Y	0.25	Federal Land Code 108		0.90
Scenic Value		0.90	Federal Land Code 198	Y	0.90

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FERC Number	Plant Name	Stream	State Name
MO009	PATTONSBURG	GRAND R	MO

County Name	River Basin
DAVISS	MINOR RIVER BASINS

Class		Owner Name		
F		CORPS OF ENGINEERS		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
40000.00	0.10	4000.00	51000.00	5100

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3958.00 9356.00
C	STG	ZZ	U		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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		0.90
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	Y	0.25	Federal Land Code 198	Y	0.90
Scenic Value		0.90			

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FERC Number	Plant Name	Stream	State Name		
MO010	HOLLOW	NORTH FORK R	MO		
County Name	River Basin				
OZARK	UPPER WHITE RIVER BASIN				
Class	Owner Name				
	NHPS/COE				
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)	
62900.00	0.10	6290.00	88600.00	8860	
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3642.00 9211.00
C	STG	ZZ	U		
Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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	0.50
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	Y	0.25	Federal Land Code 198		0.90
Scenic Value		0.90			

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FERC Number	Plant Name	Stream	State Name
MO011	OZARK	FINLEY CR, JAMES R	MO

County Name	River Basin
CHRISTIAN	UPPER WHITE RIVER BASIN

Class	Owner Name
P	EMPIRE DIST ELEC CO

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
0.00	0.90	0.00	0.00	0

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	0.00 0.00
Z	ROR	ZZ	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	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
MO012	TABLE ROCK	WHITE R	MO

County Name	River Basin
TANEY	UPPER WHITE RIVER BASIN

Class		Owner Name	
F		CORPS OF ENGINEERS	
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)
0.00	0.90	0.00	0.00
			PESF Annual Energy Rating (MWh)
			0

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3636.00 9318.00
Z	STG	FA	W		

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	Y	0.90

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FERC Number	Plant Name	Stream	State Name
MO013	GRAND FALLS	SHOAL CR, SPRING R	MO

County Name	River Basin
NEWTON	GRAND-NEOSHO RIVER BASIN

Class		Owner Name	
P		EMPIRE DIST ELEC CO	
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)
0.00	0.50	0.00	0.00
			PESF Annual Energy Rating (MWh)
			0

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	0.00 0.00
Z	ROR	ZZ	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		0.90
Geologic Value		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
MO014	CLARENCE F CANNON 3/	SALT R	MO

County Name	River Basin
RALLS	SALT RIVER BASIN

Class	Owner Name
F	CORPS OF ENGINEERS

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
0.00	0.90	0.00	0.00	0

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3932.00
Z	CMB	FA	WO	Longitude	9139.00

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		0.90
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	Y	0.90
Scenic Value		0.90			

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FERC Number	Plant Name	Stream	State Name
MO015	LOCK NO 2	OSAGE R	MO

County Name	River Basin
COLE	OSAGE RIVER BASIN

Class		Owner Name		
F		CORPS OF ENGINEERS		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
20000.00	0.10	2000.00	160000.00	16000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3751.00 9232.00
C	ROR	ZZ	U		

Factor	Exist	Prob	Factor	Exist	Prob
Wild/Scenic Protection		0.90	Wildlife Value	Y	0.25
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	Y	0.25	Federal Land Code 108		0.90
Scenic Value		0.90	Federal Land Code 198	Y	0.90

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FERC Number	Plant Name	Stream		State Name
MO016	STOCKTON	SAC R		MO
County Name		River Basin		
CEDAR		OSAGE RIVER BASIN		
Class		Owner Name		
F		CORPS OF ENGINEERS		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
0.00	0.90	0.00	0.00	0
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
Z	STG	FA	W	3741.00 9345.00
Factor		Exist	Prob	Factor
Wild/Scenic Protection			0.90	Wildlife Value
Wild/Scenic Tributary or Upstream/Downstream				Threatened/Endangered Fish
Wild/Scenic Location			0.90	Threatened/Endangered Wildlife
Cultural Value			0.90	Federal Land Code 103
Fish Presence Value			0.90	Federal Land Code 104
Geologic Value			0.90	Federal Land Code 105
Historic Value			0.90	Federal Land Code 106
Other Value			0.90	Federal Land Code 107
Recreation Value			0.90	Federal Land Code 108
Scenic Value			0.90	Federal Land Code 198
				Y 0.90

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FERC Number	Plant Name	Stream	State Name
MO017	HARRY S TRUMAN 3/	OSAGE R	MO

County Name	River Basin
BENTON	OSAGE RIVER BASIN

Class	Owner Name
F	CORPS OF ENGINEERS

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
0.00	0.90	0.00	0.00	0

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3816.00 9324.00
Z	CMB	FA	W		

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		0.90
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	Y	0.90
Scenic Value		0.90			

END

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