U.S. Hydropower Resource Assessment for Florida

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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 Florida.

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 Florida

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 40 states. This report presents the results of the hydropower resource assessment for the State of Florida. 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 13 sites (Table 1) have been identified and assessed for their undeveloped hydropower potential. The HES results for individual site capacities range from 200

kilowatts (kW) to 18 megawatts (MW). The majority (69%) of the hydropower sites in Florida is greater than 1 MW, and less than 10 MW (Figure 1).

The nonmodeled undeveloped hydropower potential total for Florida was identified as 61 MW. The HES results lowers this estimate about 30% to 43 MW. The greatest reduction in undeveloped hydropower potential, by MW, occurs at sites that have some type of developed impoundment or diversion structure, but no hydropower generating capability (W/O category). These sites have a HES-modeled undeveloped hydropower potential of about 34 MW, a 15-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 13 identified sites are located within one major river basin and several minor river basins. Most of the hydropower sites (11 sites) are located within the many minor river basins in Florida, only two sites are located within the major river basin, Apalachicola River basin (Figure 4). It should be noted that about 41% of the undeveloped hydropower potential in the State of Florida are contained within the two sites located within the Florida Apalachicola River basin (Figure 5).

Table 1. Undeveloped hydropower potential summary for Florida. 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	8	49.3	34.3
Undeveloped	5	11.9	9.1
State Total	13	61.2	43.4

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 Florida river basins.

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

Detailed Results

The appendices contain, in the form of HES-generated reports, detailed information about the undeveloped hydropower potential in Florida. 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 13 sites in Florida. 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.

E-mail—Customers may e-mail their requests to info@ntis.fedworld.gov.

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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.

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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: 01/12/98

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>
FL	With Power	0	0	0
	W/O Power	8	49260	34346
	Undeveloped	5	11900	9110
	STATE TOTAL	13	61160	43456
TOTALS	With Power	0	0	0
	W/O Power	8	49260	34346
	Undeveloped	5	11900	9110
GRAND TOTAL		13	61160	43456

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 APALACHICOLA RIVER BASIN					
FL001	DEAD LAKES DAM CHIPOLA R	U	2000.00	0.10	200.00
FL002	JIM WOODRUFF L&D APALACHICOLA R	WO	19850.00	0.90	17865.00
** Subtotal **			21850.00		18065.00
** River Basin MINOR RIVER BASINS					
09430	STRUCTURE 65E CANAL 38(KISSIMMEE R)	U	2350.00	0.90	2115.00
09164	STRUCTURE 65D CANAL 38(KISSIMMEE R)	U	2500.00	0.90	2250.00
09431	STRUCTURE 65C CANAL 38(KISSIMMEE R)	U	3200.00	0.90	2880.00
09165	STRUCTURE 65B CANAL 38(KISSIMMEE R)	U	1850.00	0.90	1665.00
FL003	MACCLENNY 3 ST MARYS R	WO	8970.00	0.50	4485.00
11088	RODMAN OKLAWAHA R	WO	5000.00	0.50	2500.00
10379	MOSS BLUFF L&D OKLAWAHA R	WO	1300.00	0.50	650.00
09163	ST LUCIE L&D(STRUC 80) ST LUCIE CNL(ST LUCIE R)	WO	3450.00	0.10	345.00
09166	STRUCTURE 77 CALOOSAHATCHEE R	WO	4890.00	0.90	4401.00
10892	INGLIS DAM WITHLACOOCHEE R	WO	2800.00	0.50	1400.00
10893	INGLIS BYPASS SPILLWAY INGLIS BY-PASS CHANNEL	WO	3000.00	0.90	2700.00
** Subtotal **			39310.00		25391.00
*** Total ***			61160.00		43456.00

Appendix C
Florida Sites List

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	ST	Dam Stat	Name Plate Rating (KW)	PESF	PESF * KW
** FERC Number 09164 STRUCTURE 65D CANAL 38(KISSIMMEE R)	FL	U	2500.00	0.90	2250.00
** Subtotal **			2500.00		2250.00
** FERC Number 09165 STRUCTURE 65B CANAL 38(KISSIMMEE R)	FL	U	1850.00	0.90	1665.00
** Subtotal **			1850.00		1665.00
** FERC Number 09430 STRUCTURE 65E CANAL 38(KISSIMMEE R)	FL	U	2350.00	0.90	2115.00
** Subtotal **			2350.00		2115.00
** FERC Number 09431 STRUCTURE 65C CANAL 38(KISSIMMEE R)	FL	U	3200.00	0.90	2880.00
** Subtotal **			3200.00		2880.00
** FERC Number FL001 DEAD LAKES DAM CHIPOLA R	FL	U	2000.00	0.10	200.00
** Subtotal **			2000.00		200.00
** FERC Number 09163 ST LUCIE L&D(STRUC 80) ST LUCIE CNL(ST LUCIE R)	FL	WO	3450.00	0.10	345.00
** Subtotal **			3450.00		345.00
** FERC Number 09166 STRUCTURE 77 CALOOSAHATCHEE R	FL	WO	4890.00	0.90	4401.00

HYDROPOWER RESOURCE ASSESSMENT BY FERC NUMBER

Plant Name/ Stream	Dam ST Stat	Name Plate Rating (KW)	PESF	PESF * KW
** Subtotal **		4890.00		4401.00
** FERC Number 10379 MOSS BLUFF L&D OKLAWAHA R	FL WO	1300.00	0.50	650.00
** Subtotal **		1300.00		650.00
** FERC Number 10892 INGLIS DAM WITHLACOOCHEE R	FL WO	2800.00	0.50	1400.00
** Subtotal **		2800.00		1400.00
** FERC Number 10893 INGLIS BYPASS SPILLWAY INGLIS BY-PASS CHANNEL	FL WO	3000.00	0.90	2700.00
** Subtotal **		3000.00		2700.00
** FERC Number 11088 RODMAN OKLAWAHA R	FL WO	5000.00	0.50	2500.00
** Subtotal **		5000.00		2500.00
** FERC Number FL002 JIM WOODRUFF L&D APALACHICOLA R	FL WO	19850.00	0.90	17865.00
** Subtotal **		19850.00		17865.00
** FERC Number FL003 MACCLENNY 3 ST MARYS R	FL WO	8970.00	0.50	4485.00
** Subtotal **		8970.00		4485.00
*** Total ***		61160.00		43456.00

Appendix D
Individual Resource Database List

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
09163	ST LUCIE L&D(STRUC 80)	ST LUCIE CNL(ST LUCIE R)	FL

County Name	River Basin
MARTIN	MINOR RIVER BASINS

Class	Owner Name
R	STUART ASSOC

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
3450.00	0.10	345.00	13500.00	1350

Unit Type	Plant Type	Project Status	Dam Status	Latitude	2707.00
C	DIV	XX	WO	Longitude	8017.00

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	Y	0.10
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
09164	STRUCTURE 65D	CANAL 38 (KISSIMMEE R)	FL

County Name	River Basin
OKEECHOBEE	MINOR RIVER BASINS

Class	Owner Name
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R	OKEECHOBEE ASSOC
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Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
2500.00	0.90	2250.00	7500.00	6750

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	2719.00 8102.00
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	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
09165	STRUCTURE 65B	CANAL 38(KISSIMMEE R)	FL

County Name	River Basin
OKEECHOBEE	MINOR RIVER BASINS

Class		Owner Name		
R		LORIDA ASSOC		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1850.00	0.90	1665.00	5000.00	4500

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	2729.00 8110.00
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	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
09166	STRUCTURE 77	CALOOSAHATCHEE R	FL

County Name	River Basin
GLADES	MINOR RIVER BASINS

Class	Owner Name
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R	MOORE HAVEN ASSOC
---	-------------------

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
4890.00	0.90	4401.00	14200.00	12780

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	2650.00 8105.00
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	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
09430	STRUCTURE 65E	CANAL 38(KISSIMMEE R)	FL

County Name	River Basin
OKEECHOBEE	MINOR RIVER BASINS

Class	Owner Name
R	BRIGHTEN HYDRO LTD

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
2350.00	0.90	2115.00	7000.00	6300

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	2714.00 8058.00
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	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
09431	STRUCTURE 65C	CANAL 38 (KISSIMMEE R)	FL

County Name	River Basin
OKEECHOBEE	MINOR RIVER BASINS

Class		Owner Name		
R	CORNWELL HYDROELECTRIC ASSOC			
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
3200.00	0.90	2880.00	8000.00	7200
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
C	ROR	XX	U	2724.00 8108.00

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	

RESOURCE DATABASE LISTING

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FERC Number	Plant Name	Stream	State Name
10379	MOSS BLUFF L&D	OKLAWAHA R	FL

County Name	River Basin
MARION	MINOR RIVER BASINS

Class	Owner Name
R	OGALA HYDRO ASSOC

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
1300.00	0.50	650.00	4300.00	2150

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	2905.00 8153.00
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	Y	0.75
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		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
10892	INGLIS DAM	WITHLACOOCHEE R	FL

County Name	River Basin
LEVY	MINOR RIVER BASINS

Class	Owner Name
R	HY POWER ENERGY CO

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
2800.00	0.50	1400.00	10000.00	5000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	2901.00 8237.00
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	Y	0.75	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	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
10893	INGLIS BYPASS SPILLWAY	INGLIS BY-PASS CHANNEL	FL

County Name	River Basin
LEVY	MINOR RIVER BASINS

Class		Owner Name		
R		HY POWER ENERGY CO		
Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
3000.00	0.90	2700.00	15700.00	14130
Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude
C	ROR	MA	WO	2901.00 8237.00

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

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FERC Number	Plant Name	Stream	State Name
11088	RODMAN	OKLAWAHA R	FL

County Name	River Basin
PUTNAM	MINOR RIVER BASINS

Class	Owner Name
R	KAREN, ROBERT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
5000.00	0.50	2500.00	42000.00	21000

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	2930.00 8149.00
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	Y	0.75
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		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
FL001	DEAD LAKES DAM	CHIPOLA R	FL

County Name	River Basin
GULF	APALACHICOLA RIVER BASIN

Class	Owner Name
M	DEAD LAKES WTR MGMT

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
2000.00	0.10	200.00	13900.00	1390

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3007.00 8510.00
C	STG		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	Y	0.10
Fish Presence Value	Y	0.25	Federal Land Code 104		0.90
Geologic Value	Y	0.50	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	Y	0.50	Federal Land Code 198		0.90

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FERC Number	Plant Name	Stream	State Name
FL002	JIM WOODRUFF L&D	APALACHICOLA R	FL

County Name	River Basin
JACKSON	APALACHICOLA 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)
19850.00	0.90	17865.00	72000.00	64800

Unit Type	Plant Type	Project Status	Dam Status	Latitude	3043.00
C	STG		WO	Longitude	8452.00

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

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FERC Number	Plant Name	Stream	State Name
FL003	MACCLENNY 3	ST MARYS R	FL

County Name	River Basin
BAKER	MINOR RIVER BASINS

Class	Owner Name
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NHPS/COE

Name Plate Rating (KW)	PESF	PESF*KW	Annual Energy Rating (MWh)	PESF Annual Energy Rating (MWh)
8970.00	0.50	4485.00	22870.00	11435

Unit Type	Plant Type	Project Status	Dam Status	Latitude Longitude	3022.00 8205.00
C	CMB		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