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Volume XIV
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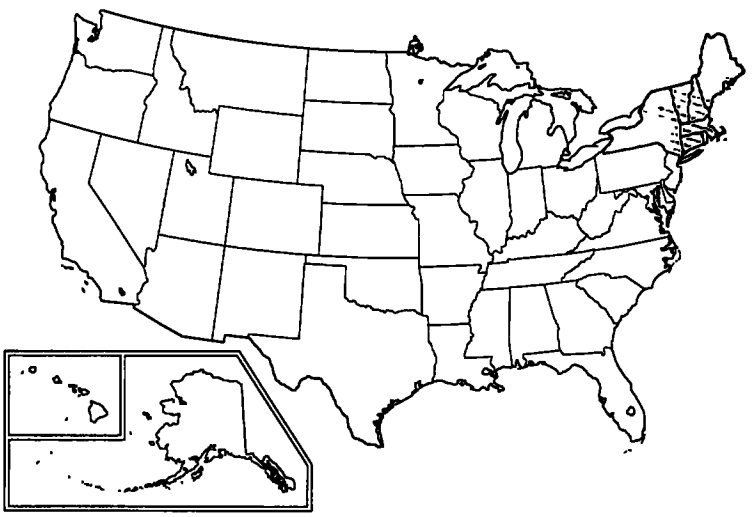
Regional Assessment: Northeast Power Coordinating Council



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This volume briefly describes existing conditions (physical, social, economic) affecting electric supply and demand in the Northeast Power Coordinating Council. It discusses the existing electric energy system and the role of hydropower therein. Projections of electrical supply and demand through the year 2000 are discussed. The hydropower resources, developed and undeveloped, of the region are evaluated and a regional ranking of specific projects and sites which are recommended to be studied in further detail is presented. The public involvement in the planning process is described.

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NATIONAL HYDROELECTRIC POWER STUDY

NORTHEAST POWER COORDINATING COUNCIL

REGIONAL REPORT

VOLUME XIV

Prepared By: U.S. Army Corps of Engineers
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PREFACE

The economic success and standard of living in this country have been achieved, in part, at the expense of abundant supplies of low cost, non-renewable, energy sources. In recent years however, diminishing reserves of the preferred non-renewable energy sources, i.e. oil and natural gas, have prompted a national energy policy which emphasizes conservation and the development of new and renewable sources of energy. This report is a direct result of the national energy policy as it focuses on our major existing renewable energy resource, hydroelectric power.

Congress, in the Water Resources Development Act of 1976 (P. L. 94-587), authorized and directed the Secretary of the Army, acting through the Chief of Engineers, to undertake a National Hydroelectric Power Resources Study (NHS). The primary objectives of the NHS were (1) to determine the amount and the feasibility of increasing hydroelectric capacity by development of new sites, by the addition of generation facilities to existing water resources projects, and by increasing the efficiency and reliability of existing hydroelectric power systems; and (2) to recommend to Congress a national hydroelectric power development program.

The final NHS report consists of 23 volumes. Volumes I and II are the Executive Summary and National Reports respectively. Volumes III and IV evaluate the existing and projected electric supply and demand in the United States. Volumes V through XI discuss various generic policy and technical issues associated with hydroelectric power development and operation. Volumes XII and XIII describe the procedures used to develop the data base and include a complete listing of all sites. Volumes XIV through XXII are regional reports defined by Electric Reliability Council (ERC) regions. The index map at the inside back cover defines the ERC regions. Alaska and Hawaii are presented in Volume XXIII.

This volume, number XIV, describes the hydroelectric power potential in the Northeast Power Coordinating Council (NPCC) region. A map depicting all sites described in the text is located in the jacket, inside back cover.

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CHAPTER 1

REGIONAL OBJECTIVES

1.1 REGIONAL CHARACTERISTICS

During this century the industrialized Northeast has become enormously dependent on the energy sources of other regions and countries. Geologic conditions left the area with a lack of fossil fuel deposits, and this corner of the Nation is located at the end of the coal, oil and natural gas supply lines. The results are that more severe shortages occur here when supplies become tight and higher prices also occur here when fuels are available.

The continuing growth in our population, economy and demand for electricity, projected in this report, can only magnify the region's energy problem. In this seven-State electric reliability area (NPCC) are four of the most densely populated States in the country - Rhode Island, Massachusetts, Connecticut and New York.

But the Northeast, although poor in the fuels of the 20th century, does possess a wealth of renewable energy sources. Water, wind, sunshine and wood (even urban trash) are in abundance here. Combined with conservation efforts, these indigenous resources potentially can go far towards satisfying the area's energy needs. And hydropower is a valuable source for both the short and long term. Already contributing more than 15 percent of the region's electricity, its technology is well established worldwide. Hydropower's impacts are well known, and there are no surprises associated with its use.

Although overlooked for a number of years, the Northeast has more sites suitable for small hydropower development than are found in any other part of the country. Many one-time power houses at existing dams could be renovated to once again generate electricity. A side benefit of this retrofitting process would be improved safety of the dam structure, an important concern. However, all of this comes at a cost. Dams requiring rehabilitation markedly increase the capital cost (plus continuing operation and maintenance costs) thereby making it tougher for small hydro to compete economically. Numerous dams where hydropower has never been generated could be fitted with hydroelectric generating facilities. In addition, there are also a fair number of undeveloped dam sites which are suitable for hydropower. Not to be ignored is the additional power that could be obtained by expanding existing hydroelectric power plants.

A renewed interest in these dams is becoming apparent. Increasing numbers of individual site owners, private investors, utilities and communities are requesting information, conducting studies or applying for licenses from the Federal Energy Regulatory Commission (FERC). The role

of FERC is described in detail in Chapter 3.1.10. The private sector and municipalities can obtain a license and design and construct hydroelectric facilities more rapidly than can Federal agencies. A 15 megawatt facility at Essex Dam in Lawrence, Massachusetts, for example, will be completed in just 6 years. Recently streamlined regulatory procedures would have reduced this time by at least a year. Federal agencies, on the other hand, are subject to a much lengthier approval process for both small and large projects.

Major reasons for the current activity are economy and a desire for greater energy independence. Foreign oil generates a greater proportion of electricity in the Northeast than in any other section of the United States. Fortunately, non-Federal developers of small-scale hydropower recently have gained the assistance of Federally authorized incentives such as tax credits and shelters, tax exempt development bonds, streamlined licensing procedures, and a guaranteed market. All six New England States and New York are also helping developers save time and money. Speed in getting the projects started, however, is critical in the current period of double-digit inflation.

The power these small dams produce can be used locally, for street lights or municipal buildings, for instance; or it can be sold to a utility and connected to the regional power grid. As the cost of fossil fuels continues to climb, development of more and more of our existing dams will become economically competitive.

Undeveloped sites located in both New England and New York offer the greatest potential on a site-by-site basis, but building long term, conventional storage facilities is complicated and controversial. Projects bigger than 80 megawatts still are subject to the usual regulatory procedures (Chapter 3.1.10), and development of large projects arouses considerable opposition because of conflicting property and water uses and environmental effects.

The energy situation in the Northeast is complex, and there is no simple solution. Our hydropower capability is certainly not large enough to meet all demands, present or projected. However, utilization of a source that supplied even 1 percent of the projected 1985 demand would displace 2.6 million barrels of oil. At the July 1980 price of $32 a barrel, this contribution would amount to $83 million a year. Hydropower is a proven native energy source that can carry a bigger part of the region's energy load, even in the near future.

1.2 REGIONAL OBJECTIVES

Early in the Northeast portion of the National Hydroelectric Power Resources Study the following objectives were developed:

- To assess the physical potential for increasing hydropower capacity and generation in the form of a current and updated inventory;

- To determine the technical and economic feasibility, short and long term, of installing hydropower generation at existing dams and specific undeveloped sites as well as increasing capacity at existing hydroelectric facilities; and

- Ultimately, to reduce the Northeast's dependence on foreign oil and other nonrenewable fossil fuels (coal and natural gas) imported into the region.

1.3 OTHER STUDIES

1.3.1 New England River Basin Commission (NERBC) Hydropower Expansion Study

NERBC is currently conducting a special study to investigate the feasibility and implications of expanding hydropower use in New England. The study was authorized by Congress through the Water Resources Council, and $1 million was appropriated in 1977 for fiscal years 1978 through early 1981. The Federal Government provided a three-quarter share of the study funds, and the New England States provided the remainder by contributing in-kind services.

Study objectives are to identify the hydropower potential that exists in New England and then to determine a reasonable level of hydropower expansion that could be acceptable from the standpoint of impacts on other water resource interests. As a byproduct of the study, guidelines are to be prepared for the region's consideration of specific hydropower development opportunities. In meeting these objectives, the study will be coordinated with parallel efforts being conducted at the national level by the Army Corps of Engineers National Hydropower Study and the Department of Energy.

The first study objective has been partially fulfilled, in that the theoretical maximum potential for existing dams has been identified as a capacity of 1,800 megawatts, or an annual energy output of 6.27 billion kilowatt hours. Additional work is being performed to define and identify potential at undeveloped sites, and to rank the economic feasibility of both existing and undeveloped sites. Further study work tasks will identify conflicting water resource interests. Other social, legal and institutional factors will be considered to determine a reasonable level of hydropower development to recommend for New England.

The New England Divison, under contract with NERBC and in a partnership agreement with each New England State, evaluated approximately 10,670 existing dams in New England and furnished a completed inventory of these sites to the Commission in December 1979. This inventory served as a basis for New England's computer data inventory in the National Hydropower Study.

1.3.2 TAMS Report on Hydropower Potential in New England

Pursuant to an agreement with the Planning Committee of the New England Power Pool (NEPOOL), Tippetts-Abbett-McCarthy-Stratton Engineers and Architects of New York (TAMS) performed a screening study, completed in January 1980, and prepared a report entitled "Estimate of Commercially Viable Hydroelectric Potential in New England."

The study data sources were the NEPOOL utilities, the New England and New York Inter-Agency Committee Report, the Federal Energy Regulatory Commission, and the Army Corps of Engineers inventory of existing dams with power potential, done for the New England River Basin Commission. Data was obtained on 11,044 sites.

Procedural methods for screening were based on generalized hydrologic analysis and on assumptions regarding optimum site development with assumed values of energy and firm capacity. A single rate covering annual fixed charges and operation and maintenance was used. Civil works costs were based on generalized cost curves including equipment costs. The effect of seasonal upstream storage was considered, and the possibility of incremental capacity increases at existing hydropower plants was also investigated. Sites which appeared improbable due to known or anticipated environmental constraints were dropped from consideration. The report clearly indicated that the total capacity and energy values and proportional division by State are extremely sensitive to the outcome of further detailed study. The TAMS study was limited to the review of documented site data without benefit of site inspections.

Final results indicated that 534 MW was deemed economically attractive at 105 possible sites. The associated average annual energy output from these sites would be 2.9 billion kilowatt hours.

1.3.3 New England Power Pool Load and Capacity Report

The "New England Load and Capacity Report 1980-1995," issued by NEPOOL on 1 April 1980, summarizes forecasts of electric peak load, capabilities and reserves for the period. The report contains information on the summer and winter peak loads for calendar year 1979. The summer peak of 14,341 megawatts (MW) occurred on 2 August 1979 and the winter peak of 15,311 MW occurred on 19 December 1979.

The report indicated that reserves to meet expected peak loads through winter 1991-1992 will be adequate if the five "NEPOOL Planned" units identified in the report (four nuclear and one coal) are in service as scheduled. Additional capacity will be required beyond the 1992 time frame. Two of these units did not, at the time the report was issued, have construction permits.

NEPOOL points out that approximately 60 percent of the existing capacity is contained in oil fired units, which would be affected by fuel

shortages that could occur in the immediate future. NEPOOL wants all non-oil fired capacity to be built as scheduled.

The report contains a listing of plants planned for retirement through 1993, those plants where changes would be made in ratings and the proposed generating additions.

This latter category includes the addition of 13 conventional hydropower generating plants having a total capability of 91.12 MW for summer loads and 102.92 MW for winter loads. In the deactivated reserve category one hydropower plant rated at 5 MW is scheduled to be returned to service in 1982.

1.3.4 NERBC: An Environmental Reconnaissance of Alternative Pumped Storage Sites in New England

In 1973 the New England River Basins Commission performed an environmental reconnaissance study of promising pumped storage sites in New England. The initial list of sites was compiled from separate lists provided by the Corps of Engineers, Federal Power Commission (now the Federal Energy Regulatory Commission) and the New England Planning Committee. The list did not include all possible pumped storage sites that could be identified, as more resources would be required for such a search. The site locations identified were based primarily on the existence of suitable topography and geological features. A preliminary screening aimed at getting a substantial reduction in the number of sites was made, in keeping with the broad-brush nature of the screening process. The screening began with 52 technically feasible pumped storage sites, which were reduced to 14 (less than 1,000 MW) and eliminated those with obviously unacceptable environmental impacts.

The remaining 14 sites were grouped into three categories: those involving the least amount of onsite environmental impacts, the ones having the greatest impact and those in the middle. The sites so grouped are as follows: (1) Least impact -- Great Barrington #2, Great Barrington, Massachusetts; Fall Mountain, Charlestown, New Hampshire; Percy #3, Odell, New Hampshire; Site Leo, Caratunk, Maine; (2) Sites with the most onsite impact - Schenob Brook, Sheffield, Massachusetts; Middlebury, Vermont; and (3) Sites with an intermediate amount -- Canaan Mountain, Canaan, Connecticut; Monterey, Massachusetts; Tolland Center, Massachusetts; West Rumney, New Hampshire; Bingham #3, Pleasant Ridge, Maine; Oquossoc, Richardsontown T&R 1, Maine; Pleasant Ridge, Maine; Robinson Pond, Caratunk, Maine.

If development of pumped storage facilities in New England continues, sites in the least environmental impact group should be among the sites for which more detailed feasibility studies are undertaken. This conclusion is not meant to preclude consideration of the other sites. The groupings that resulted from the study should be taken as suggestive, but not conclusive.

CHAPTER 2

EXISTING CONDITIONS IN THE RELIABILITY COUNCIL REGION

Ninety-eight percent of the Northeast's electricity is supplied by member utilities of the Northeast Power Coordinating Council (NPCC). The Northeast Power Coordinating Council (NPCC), formed January 19, 1966 - following the 1965 Northeast Blackout - has as its purpose "... to promote maximum reliability and efficiency of electric service in the interconnected systems of the signatory parties by extending the coordination of their system planning and operating procedures." NPCC consists of 21 full member systems which supply approximately 98% of all the electric generation in New England, New York and in New Brunswick and Ontario, Canada.

Four distinct Planning and operating entities are within the NPCC region. NPCC member systems in New England are also members of the New England Power Pool (NEPOOL) and systems in New York are members of the New York Power Pool (NYPP). New Brunswick Electric Power Commission and Ontario Hydro are single entities serving their respective provinces in Canada.

NEPOOL's Agreement states that - "The objectives of NEPOOL are, through joint planning, central dispatching, cooperation in environmental matters and coordinated construction, operation and maintenance of electric generation and transmission facilities owned or controlled by the Participants and through the provision of a means for more effective coordination with other power pools and utilities situated in the United States and Canada.

(a) to assure that the bulk power supply of New England and any adjoining areas served by Participants conforms to proper standards of reliability, and

(b) to attain maximum practicable economy consistent with such proper standards of reliability in such bulk power supply and to provide for equitable sharing of the resultant benefits and costs."

NYPP's Agreement states that - "the parties ... agree to coordinate the development and operation of their respective electric production and transmission facilities in order to obtain optimum reliability of service and efficiency upon the interconnected systems of the parties ... compatible with environmental considerations."

2.1 TOPOGRAPHY

The study area is bounded on the north by Canada, on the east by the Atlantic Ocean, and on the south and west by New Jersey, Pennsylvania and Lake Erie. The six New England States -- Maine, New Hampshire, Vermont, Massachusetts, Connecticut and Rhode Island - cover 66,608 square miles. This total area is smaller than Oklahoma, but its population is four times larger. New York, the only State in the Union that touches both the Atlantic Ocean and the Great Lakes, ranks 30th in size with an area of 49,576 square miles.

Geographically, New England is partly cut off from the rest of the Nation by the Appalachian Mountains. Western and most of northern New England is characterized by mountainous terrain. Uneven hill country then stretches into the coastal lowlands of southern and eastern New England.

Its surface is surmounted by residual mountains standing singly or in groups or ranges. Principal areas include the Green Mountains in Vermont; the White Mountains in New Hampshire, which include Mount Washington, the highest point in the Northeast with an elevation of 6,288 feet; Mount Katahdin in Maine; the Berkshire Hills in western Massachusetts; and the Litchfield Hills in northwestern Connecticut.

New York lies within three major physiographical regions of North America. Most of the State is within the Appalachian Highlands, an area of mountains, plateaus and valleys; part of the western edge is within the Great Lakes Plain; and Long Island, at the southeastern tip, is part of the coastal plain. Long Island, with a surface of gently rolling hills and flat level plains, extends eastward from the mainland for 118 miles.

The surface features of New York include mountains and hills, a seacoast, rivers extending far into the interior, massive waterfalls and many lakes. Principal mountain groups of the State are the Adirondack Mountains, which include Mount Marcy, the highest point in New York with an elevation of 5,344 feet; the Catskill Mountains; the Taconic Mountains and the Hudson Highlands.

As a result of glaciers, New England's shoreline is irregular and often jagged and rough. Extremely diversified and offering a variety of terrain, the coast is indented with numerous harbors, bays and beaches. Offshore there are many shoals and islands.

Geologic conditions, especially in New England, were not favorable to the preservation of any oil, natural gas and coal deposits that may once have existed here. Some oil and natural gas are believed to exist offshore, and a commercially potential coal deposit lies beneath the Narragansett Bay Basin. The lack of fossil fuels can be at least partially attributed to the great amount of structural and tectonic activity occurring in the past. Most of the sedimentary rocks were metamorphized,

meaning the rock structure was changed by heat, pressure or both. Unfortunately, metamorphism is not conducive to the survival of coal or oil bearing deposits.

2.2 HYDROLOGIC CONDITIONS

The Northeast is an area rich in water resources supporting thousands of rivers and lakes. The same glacial action that rounded hills and deepened valleys also turned aside many streams. This caused changes in drainage, giving rise to innumerable waterfalls and rapids and forming the many lakes that are scattered throughout the region.

The water power developed at the falls and rapids gave the Northeast its first industrial energy. At least six manufacturing cities, for instance, owe their locations on the Merrimac River to water power.

Unlike some areas of the country, streams in the region seldom run dry because of the favorable rainfall regime. Precipitation is both adequate and evenly distributed throughout the year. The area climate is continental, meaning precipitation in the winter months is snow and in other months is rainfall. Average annual precipitation in each of the seven States is about 40 inches a year.

Principal rivers and their total drainage areas, in square miles, within New England are listed in clockwise order from the Canadian-Maine border: Saint John, 7,360; Penobscot, 8,910; Kennebec, 5,910; Androscoggin, 3,450; Saco, 1,697; Merrimac, 5,010; Connecticut, 11,137; and Housatonic, 1,732. The Connecticut River, with a length of more than 400 miles, drains New England's largest watershed. It forms the New Hampshire-Vermont boundary and flows through central Massachusetts and Connecticut before emptying into Long Island Sound.

Principal rivers and their total drainage areas, in square miles, within New York are the following: Hudson, 9,913; Mohawk, 3,462; St. Lawrence, 5,539; Delaware, 2,362; Genesee, 2,479; Oswego, 5,122; and Susquahanna, 6,300.

Apart from the Great Lakes, Ontario and Erie, the Northeast's largest lakes are Winnipesaukee in New Hampshire, Moosehead in Maine, George and Oneida in New York, and Champlain, which is part of the border between Vermont and New York.

2.3 ECONOMICS

Manufacturing became the foundation of the region's economy more than a century ago. Factories built during the Industrial Revolution dotted our rivers and streams, using the force of the falling water to turn out all sorts of goods. Still the largest single source of income for the

NPCC region, manufacturing earned more than $26 billion in 1970. (See Table 2-1 at the end of this chapter.) The products include computers, rockets, atomic submarines, toothpicks, ships, typewriters, costume jewelry, clocks, fabrics, shoes and more.

Trade, finance, services and government also contribute substantially to the area's earnings. In the Northeast, where so much of the land is hilly and rocky, farming is less profitable than in many other areas. Thus, agriculture has one of the lowest sector earnings. In fact, agriculture and mining together contribute only about 1 percent to the region's total earnings.

Approximately $89 billion was earned in the region in 1970. This accounted for 15.8 percent of the Nation's total earnings. The greatest contribution the Northeast has made to the Nation's economy is in the area of finance, which makes up some 21 percent of the overall finance sector income.

Between 1950 and 1970, NPCC member utilities' total earnings grew at an average annual rate of 3.5 percent.

Per capita income has historically been greater in the Northeast than in the rest of the country. According to 1978 figures, Connecticut and New York exceed the national average by 14 and 5 percent, respectively, but the forested States of Maine, Vermont and New Hampshire lag behind by 20, 16 and 6 percent, respectively. Per capita income is 1 percent higher than the national average in Massachusetts and 5 percent lower in Rhode Island. The Northeast area's per capita income has been growing at an average annual rate of about 2.5 percent.

2.4 FUTURE DEVELOPMENT

Total earnings are expected to grow at an average annual rate of 3.4 percent between 1980 and 2000. This is slightly lower than the projected national average. The biggest change in the economy will be in services. Its earnings, now in second place, will gradually increase and finally surpass manufacturing. By the year 2000, services will be the largest economic sector in the Northeast. Manufacturing will have lagged behind by an estimated $9 billion, as shown in Table 2-2.

Government earnings are expected to grow at an annual rate of 3.9 percent between 1980 and 2000. Trade earnings are expected to decrease from 16.6 percent of total earnings in 1970 to 14.3 percent in 2000.

Per capita income here is expected to increase to $9,000 (constant 1967 dollars) by 2000, up from a 1970 sum of $3,952. This represents an annual growth rate of 2.6 percent. Income will still be above the national levels, but the disparity between the regional and national average (14 percent in 1970) is expected to decrease.

2.4.1 Population

Part of the orginal 13 colonies, the Northeast has been settled for centuries. Large numbers of immigrants of widely varied backgrounds have poured into the ports of New York City and Boston. Some moved westward, but many stayed in the region. In 1970 more than 14 percent of the country's population still lived in this small, seven state area. Over half of them lived in New York State.

The growth rate has dropped slightly in recent years - a trend that is expected to continue into the next century. Between 1980 and 2000 an average annual population increase of 0.8 percent is projected for the NPCC region. This is slightly lower than the 1.2 percent increase experienced between 1950 and 1970. By 2000, approximately 36.8 million people -- 14 percent of the U.S. population — are expected to be living in the Northeast. About 60 percent of them will be in New York.

2.5 MAJOR ENERGY USERS

The proportion of power consumed by the residential, commercial and industrial sectors varies among utility systems. Table 2-3 lists energy consumption as reported by selected representative utilities by consumer categories.

The rate of energy consumption also varies from year to year. Annual growth rates in the three categories between 1971 and 1977 are shown in Table 2-4.

2.6 NPCC OPERATING PROCEDURES

As of 1 January 1978, the total NPCC area (U.S. and Canada) was served by four bulk transmission voltages:

Voltage (KV)	Circuit-Miles
230	9,725
345	3,686
500	650
765	96*

*Currently operated at 345 KV

For New England, annual generation and bulk transmission maintenance schedules are developed for all of the member systems. Schedules are administered by the New England Power Exchange (NEPEX), the joint dispatch agency of NEPOOL, located at West Springfield, Massachusetts. The annual generation and transmission maintenance schedules are updated monthly and

sent to New York Power Pool (NYPP), Ontario Hydro, New Brunswick Electric Power Commission, and the Michigan Electric Power Pool Control Center for their information and for coordination purposes. The same organizations keep NEPEX informed of their schedules.

The New York Power Pool (NYPP) Generator Maintenance Schedule is prepared for all of the member systems of the Power Control Center for the current and following year. This schedule is modified at least four times a year and is reissued to all neighboring pools. The control center is located near Schenectady, New York.

Strong interconnection between systems in each subregion of NPCC also exists. New England and New York are interconnected by a number of tie lines. Large maps of the transmission lines are contained in Volume III of the NHS report. The normal and emergency transfer capabilities within NPCC and with Canada are as follows:

NPCC

TRANSFER CAPABILITIES
Summer 1978 - MW

	Normal	Emergency
New York to New England	1,375	1,500
New England to New York	1,200	1,200
New York to Ontario Hydro	550	910
Ontario Hydro to New York	730	960
New England to New Brunswick	350	350
New Brunswick to New England	600	600

During 1977 the Northeast experienced several significant interruptions of generation and interconnections with other regions. Most of the disturbances were caused by faults on lines, violent thunderstorms, ice, snow or high winds. These problems have been aggravated by delays in construction of new transmission lines.

Table 2-1

NPCC STUDY AREA
ECONOMIC INDICATORS
1970

Sector Earnings 1/ (Million $)	New England	New York	NPCC
Agriculture	357	559	917
Mining	29	100	129
Construction	2,081	3,104	5,186
Manufacturing	9,764	16,894	26,658
Transportation Utilities	1,826	4,727	6,553
Trade	5,019	9,814	14,834
Finance	1,876	4,269	6,146
Services	5,331	10,276	15,607
Government	4,727	8,700	13,427
Total Earnings (Million $) 1/	31,065	58,443	89,508
Population (Thousands)	10,899	18,258	29,158
Per Capita Income ($) 1/	3,681	4,114	3,952
Per Capita Income Relative to the U.S.	1.059	1.184	1.137

Notes: (1) The New England subregion is approximated by BEA areas: 1, 2, 3, 4, 5.

(2) The New York subregion is approximated by BEA areas: 6, 7, 8, 9, 12 and a portion of 14.

(3) Sum of sector earnings may not equal total since some data for individual sector earnings was deleted to avoid disclosure of data pertaining to a particular establishment. Because of rounding, sum of parts may not equal totals.

(4) Per capita income is total personal income divided by the population of the area. Total personal income is the sum of earnings (wages, salaries, proprietor's income and other labor income), property income and transfer payments, less personal contributions for social insurance.

1/ Constant 1967 dollars.

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Table 2-2

PROJECTED POPULATION, INCOME AND MAJOR SECTOR EARNINGS (OBERS)
EARNINGS AND INCOME IN CONSTANT 1967 DOLLARS

Power Service Area:

Northeast Power Coordinating Council (NPCC) Study Area

Service Area Approximated by BEA Areas:

1 2 3 4 5 6 7 8 9 12 14[1/]

Sector Earnings (Million $)	Year 1980	1985	1990	2000
Agriculture	1,025	1,062	1,101	1,234
Mining	146	158	171	,203
Construction	7,778	9,062	10,559	14,445
Manufacturing	34,395	38,634	43,406	56,164
Transportation Utilities	9,406	10,973	12,806	17,720
Trade	20,703	23,706	27,146	36,582
Finance	9,650	11,511	13,734	19,733
Services	27,647	34,397	42,803	65,452
Government	20,495	24,833	30,092	43,988
Total Earnings (Million $)	131,249	154,472	181,823	255,527
Total Personal Income (Million $)	170,390	200,899	236,898	333,388
Total Population (Thousands)	31,449	32,800	34,215	36,795
Per Capita Income ($)	5,418	6,125	6,924	9,061
Per Capita Income Relative to U.S.	1.13	1.13	1.12	1.11

NOTE: Sum of sector earnings may not equal the total because of discrepancies in OBERS data.

1/ Only a portion of BEA 14 is included in the NPCC regional analysis.

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Table 2-2 (Cont'd)

PROJECTED POPULATION, INCOME AND MAJOR SECTOR EARNINGS (OBERS)
EARNINGS AND INCOME IN CONSTANT 1967 DOLLARS

Power Service Area:

Northeast Power Coordinating Council, New England

Service Area Approximated by BEA Areas:

1 2 3 4 5

Sector Earnings (Million $)	Year 1980	1985	1990	2000
Agriculture	427	442	457	512
Mining	37	41	45	55
Construction	2,980	3,468	4,036	5,502
Manufacturing	12,550	14,001	15,622	20,018
Transportation Utilities,	2,796	3,321	3,944	5,570
Trade	7,246	8,330	9,576	12,991
Finance	3,062	3,687	4,440	6,442
Services	9,779	12,315	15,509	24,040
Government	7,096	8,594	10,410	15,198
Total Earnings (Million $)	45,976	54,262	64,042	90,332
Total Personal Income (Million $)	60,522	71,679	84,895	120,435
Total Population (Thousands)	11,866	12,385	12,928	13,906
Per Capita Income ($)	5,101	5,788	6,567	8,661
Per Capita Income Relative to U.S.	1.07	1.07	1.07	1.06

NOTE: Sum of sector earnings may not equal the total because of discrepancies in OBERS data.

Table 2-2 (Cont'd)

PROJECTED POPULATION, INCOME AND MAJOR SECTOR EARNINGS (OBERS)
EARNINGS AND INCOME IN CONSTANT 1967 DOLLARS

Power Service Area:

Northeast Power Coordinating Council, New York

Service Area Approximated by BEA Areas:

6 7 8 9 12 14 1/

Sector Earnings (Million $)	Year 1980	1985	1990	2000
Agriculture	598	621	644	722
Mining	109	117	126	148
Construction	4,797	5,594	6,523	8,943
Manufacturing	21,844	24,632	27,784	36,146
Transportation Utilities	6,609	7,652	8,862	12,150
Trade	13,457	15,375	17,570	23,591
Finance	6,588	7,824	9,293	13,292
Services	17,868	22,082	27,294	41,412
Government	13,399	16,238	19,682	28,790
Total Earnings (Million $)	85,273	100,210	117,780	165,195
Total Personal Income (Million $)	109,867	129,220	152,003	212,953
Total Population (Thousands)	19,583	20,415	21,287	22,889
Per Capita Income ($)	5,610	6,330	7,141	9,304
Per Capita Income Relative to U.S.	1.17	1.17	1.16	1.14

NOTE: Sum of sector earnings may not equal the total because of discrepancies in OBERS data.

1/ Only a portion of BEA 14 is included in the NPCC regional analysis.

Table 2-3

NPCC
ENERGY CONSUMPTION BY CONSUMER CATEGORIES
1977 - (Percent of Total)

	Residential	Commercial	Industrial	Sale For Resale	Others	Total
Representative Utilities						
New England						
- Boston Edison Co.	23.4	39.4	16.4	19.7	1.1	100.0
- Northeast Utilities	36.7	27.5	24.8	10.1	0.9	100.0
- United Illuminating Company	36.2	32.8	29.5	-	1.5	100.0
New York						
- Consolidated Edison Co. of N.Y. Inc.	36.5	52.5	5.8	-	5.2	100.0
- Niagara Mohawk Power Corporation	27.9	30.5	40.6	0.1	0.9	100.0
- Long Island Lighting Company	44.2	39.1	9.0	3.1	4.6	100.0
- New York State El. & Gas Corporation	39.9	33.9	24.8	0.3	1.1	100.0
- Rochester Gas & El. Corporation	33.2	36.6	29.1	-	1.1	100.0

*Sources: 1977 Annual reports of the listed utilities.

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Table 2-4

NPCC
ANNUAL GROWTH RATES OF ENERGY CONSUMPTION BY CONSUMER CATEGORIES
(Percentage)

	RESIDENTIAL						
	1971	1972	1973	1974	1975	1976	1977
New England Subregion							
- Maine	9.6	12.6	6.6	6.3	4.8	11.1	3.0
- New Hampshire	11.7	15.2	9.0	2.9	0.7	8.0	1.1
- Vermont	11.8	10.1	1.8	(0.8)	(1.1)	6.3	1.0
- Massachusetts	10.0	7.4	6.0	(2.5)	0.8	6.6	(1.0)
- Rhode Island	8.5	6.5	7.3	(3.1)	2.9	8.1	(2.4)
- Connecticut	6.8	7.0	4.6	(0.7)	0.1	5.3	1.8
New York Subregion							
- Central Hudson Gas & Electric Corporation	7.4	9.4	7.6	(1.4)	0.8	3.0	1.8
- Consolidated Edison	-	1.5	7.6	(8.6)	2.6	0.5	4.0
- Long Island Lighting Company	7.4	4.7	8.5	(6.4)	2.9	2.8	2.4
- New York State Electric & Gas Corporation	7.2	8.1	5.2	2.4	6.0	6.0	4.0
- Niagara Mohawk Power Corporation	5.9	5.2	3.7	(0.3)	3.8	4.7	5.6
- Orange and Rockland Utilities Inc.	-	-	-	(4.4)	1.3	1.8	4.7
- Rochester Gas & Electric Corporation	6.3	6.2	3.2	(0.8)	5.1	5.7	3.3

*Commercial and Industrial Growth Rates

Source: NPCC 1977 annual report to NERC

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Table 2-4 (Cont'd)

NPCC
ANNUAL GROWTH RATES OF ENERGY CONSUMPTION BY CONSUMER CATEGORIES
(Percentage)

	COMMERCIAL						
	1971	1972	1973	1974	1975	1976	1977
New England Subregion							
- Maine	12.0	11.5	7.7	0.2	5.4	12.3	5.3
- New Hampshire	12.0	10.7	9.1	(1.5)	4.0	6.3	6.0
- Vermont	15.6	(3.6)	2.6	(3.4)	3.9	7.9	4.2
- Massachusetts	9.3	11.3	9.8	(1.8)	7.9	6.6	0.4
- Rhode Island	12.0	7.4	8.3	(7.3)	1.3	8.7	1.8
- Connecticut	10.6	10.3	9.4	(4.1)	4.8	5.3	4.2
New York Subregion							
- Central Hudson Gas & Electric Corporation	7.7	10.1	9.3	(4.2)	6.2	3.0	3.5
- Consolidated Edison	-	2.2	4.5	(6.8)	1.0	0.7	3.0
- Long Island Lighting Company	7.9	7.7	10.4	(4.3)	4.0	2.6*	3.7*
- New York State Electric & Gas Corporation	7.3	10.5	10.4	0.1	5.3	5.5	4.1
- Niagara Mohawk Power Corporation	8.4	8.9	8.7	(1.3)	5.4	1.6	6.0
- Orange and Rockland Utilities Inc.	-	-	-	(0.9)	4.8	2.9	1.1
- Rochester Gas & Electric Corporation	5.3	8.6	6.8	(2.7)	6.2	5.9	5.4

*Commercial and Industrial Growth Rates

Source: NPCC 1977 annual report to NERC

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Table 2-4 (Cont'd)

NPCC
ANNUAL GROWTH RATES OF ENERGY CONSUMPTION BY CONSUMER CATEGORIES
(Percentage)

	INDUSTRIAL						
	1971	1972	1973	1974	1975	1976	1977
New England Region							
- Maine	0.8	6.4	3.7	5.3	(3.4)	5.4	10.2
- New Hampshire	11.1	9.2	9.2	(2.6)	(3.4)	10.4	3.6
- Vermont	3.9	22.7	7.3	(4.1)	(2.0)	8.8	5.5
- Massachusetts	1.3	6.3	6.7	(7.5)	(6.7)	3.3	4.8
- Rhode Island	3.6	7.1	6.9	(3.6)	(14.3)	10.1	0.8
- Connecticut	(2.3)	6.6	5.9	(3.8)	(8.6)	7.9	3.7
New York Subregion							
- Central Hudson Gas & Electric Corporation	4.3	3.6	3.5	(10.5)	(9.9)	(4.4)	6.3
- Consolidated Edison	-	(2.5)	(2.8)	(16.0)	(11.3)	1.1	1.5
- Long Island Lighting Company	(0.3)	2.9	5.3	(8.1)	(3.6)	2.6*	3.7*
- New York State Electric & Gas Corporation	3.4	7.2	7.3	(4.7)	(0.8)	6.6	9.8
- Niagara Mohawk Power Corporation	(4.2)	1.3	5.6	(2.3)	(12.4)	6.6	3.7
- Orange and Rockland Utilities Inc.	-	-	-	(1.6)	2.1	6.5	5.4
- Rochester Gas & Electric Corporation	2.3	8.9	7.6	(5.5)	(4.5)	7.7	6.1

*Commercial and Industrial Growth Rates

Source: NPCC 1977 annual report to NERC

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Table 2-4

NPCC
ANNUAL GROWTH RATES OF ENERGY CONSUMPTION BY CONSUMER CATEGORIES
(Percentage)

	TOTAL						
	1971	1972	1973	1974	1975	1976	1977
New England Subregion							
- Maine	6.2	9.8	5.7	4.5	1.8	9.2	6.1
- New Hampshire	11.8	12.0	9.1	0.0	(0.4)	8.6	2.9
- Vermont	10.3	10.6	3.7	(2.3)	(0.5)	7.4	3.0
- Massachusetts	7.0	7.9	7.8	(3.8)	1.0	5.7	1.0
- Rhode Island	7.9	7.0	7.5	(4.6)	(3.1)	8.9	(0.1)
- Connecticut	4.8	7.8	6.4	(2.7)	(1.2)	5.5	3.1
New York Subregion							
- Central Hudson Gas & Electric Corporation	6.3	7.2	6.5	(5.5)	(1.6)	0.6	3.7
- Consolidated Edison	-	1.6	5.0	(8.2)	0.7	0.7	3.3
- Long Island Lighting Company	6.6	5.6	8.9	(5.8)	2.7	2.7	3.1
- New York State Electric & Gas Corporation	6.2	8.7	7.5	(0.3)	4.0	6.0	5.5
- Niagara Mohawk Power Corporation	1.5	4.4	5.9	(1.5)	3.0	4.5	4.9
- Orange and Rockland Utilities Inc.	-	-	-	(2.6)	2.5	3.6	2.1
- Rochester Gas & Electric Corporation	4.7	7.8	5.8	(3.0)	2.5	6.4	4.9

*Commercial and Industrial Growth Rates

Source: NPCC 1977 annual report to NERC

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CHAPTER 3

EXISTING ENERGY SYSTEMS

3.1 HYDROPOWER IN THE NORTHEAST

Since the time of the early settlers, hydropower has been important in the Northeast. During the 17th, 18th and 19th centuries, mills and factories were built along the region's many rivers to take advantage of their natural energy. Falling water was used to grind spices, corn and wheat and to run textile and saw mills. Following completion of the world's first hydroelectric central generating plant in Appleton, Wisconsin in 1882, sites here were quickly developed to generate electricity that powered factories of that time.

As late as 1900 water power still was the principal energy source in Vermont, New Hampshire and Maine; and it supplied close to a third of the industrial demand for power in New York, Massachusetts and Connecticut. By 1910 the original mills built to take advantage of mechanical water power had either been abandoned, were retired or converted to hydroelectric generation.

In this century, small-scale hydroelectic development has increasingly given way to larger and larger facilities, though many of the retired power houses still stand. Most of the old water wheels and small generators have been supplanted, first by coal burning steam engines and later by equipment fueled with cheap oil and natural gas. Even 10 years ago oil was only $2.50 a barrel; small-scale hydro simply could not compete. The heavily industrialized Northeast became enormously dependent on imported energy supplies.

Given the region's lack of coal, oil and natural gas deposits, the uncertain future of nuclear power and escalating prices of the foreign oil the area relies so heavily on, New Englanders and New Yorkers are looking at their indigenous resources with new interest. Thousands of the earlier dams can still be seen throughout the Northeast. Many are still in use. Some are partly breeched or crumbling. The dams, numerous streams, and an adequate rain and snowfall give the Northeast more potential small-scale hydroelectric sites than are found in any other section of the country; and these damsites can carry a bigger energy load in an especially beneficial way.

Water, when used at existing dams, is both inflation-proof and usually environmentally acceptable. However, adequate measures must be taken to provide sufficient streamflow for resident and migratory species. Ecosystems surrounding the dams have already adjusted to their presence, and renovation would usually result in little more than a temporary ripple. The fuel for hydropower will always be available and is virtually free. Water's evaporation-precipitation cycle is powered by the warming

rays of the sun, and the replenished streams are energized by gravity. Everyday a trillion tons of water is vaporized into the atmosphere; each day the same amount condenses and falls back to earth in a never-ending process.

The most promising of the damsites have been identified by the Corps during this study. Adding hydropower capacity to them would help reduce the region's excessive dependence on foreign oil. As oil and other fuel prices continue to rise, more and more sites will become economical to develop.

3.1.1 Types of Hydropower

Run-of-river, conventional storage and pumped storage are the main types of hydroelectric facilities in use today. Harnessing tidal energy to produce electricity is being studied, but to date no full-scale plant has been constructed in the United States.

About 90 percent of all existing hydropower facilities in the study area are run-of-river. A typical facility has a pond only large enough to store water during the hours of low demand for release during hours of high demand in the same day or week. These sites are limited to rivers that have either a sustained flow during the dry season or other upstream storage reservoirs that provide the necessary regulation. As a result, run-of-river hydro is suited to the middle and lower reaches of major rivers.

Conventional storage projects account for about 10 percent of the region's hydroelectric plants. This type requires a reservoir large enough to hold water during wet seasons of the year for release during dry seasons, which permits the turbines to produce power at a more or less constant rate throughout the year. Power from a conventional storage project is more valuable to utilities than power that can be guaranteed only during the wet season. The larger the reservoir the greater the degree of flow equalization and the greater the proportion of dependable power that can be sold.

Five pumped storage projects have been built in the study area. Their capability exceeds conventional hydro in New England but not in New York. The three pumped storage plants operating in New England are Northfield Mountain (1,000 MW) and Bear Swamp (601 MW) in Massachusetts and Rocky River (31 MW) in Connecticut. During peaking hours in 1978 they produced 1,175 million kilowatt hours (KWH), which satisfied 1.5 percent of the total demand. No other plants are under construction in New England. New York State's two pumped storage plants are Blenheim Gilboa and Lewiston. Blenheim Gilboa has a capability of 1,000 megawatts (MW). In 1978 it produced about 1 percent of the total energy demand. Lewiston has a capability of 240 megawatts (MW). FERL hearings are in progress for the license of a 1,000 MW Pumped Storage Plant at Prattsville, New York.

Potential pumped storage sites in New England are discussed in a New England River Basins Commission report, described in more detail in Chapter 1 of this volume.

This type of hydropower is relatively new in the United States, although pumped storage has been in operation in Europe for many years. Now, due to our energy shortage and to technological advances such as reversible-pump turbines, pumped storage is becoming more economically competitive here.

With this method, water is trapped in a lower reservoir and pumped back up to a higher impoundment at times of low power demand. When demand is high, the water is allowed to flow through a turbine to generate electricity and released into the lower reservoir. In the Northeast, the lower reservoir is generally a river, although it could be a lake or even a cavern. For example, the Bear Swamp project in Massachusetts uses the Deerfield River as its lower reservoir.

The pumping is done usually at night, with surplus power from fossil-fueled and nuclear plants that would otherwise be backed down reducing their overall efficiency. Modern reversible units function as both turbine generators and pump motors.

About 3 kilowatt hours of baseload energy are needed to produce 2 kilowatt hours of peak load energy. Despite the apparent inefficiency, pumped storage is regarded by the utility industry as an attractive proposition since the baseload electricity used for pumping is cheap compared to the cost of generating peaking power using conventional thermal facilities. Pumped storage is also valued because it is currently the only proven means of "storing" large amounts of electric energy.

3.1.2 Hydropower's Current Contribution

Hydropower ranks third among the region's electricity sources, after oil and nuclear power. It supplied 15.6 percent of the study area's demand in 1977. Oil supplied 49.6 percent of this demand while nuclear supplied 24.1 percent. Coal accounted for 10.5 percent and gas accounted for 0.2 percent. This small seven-State area, accounts for 11.2 percent of the Nation's total hydroelectirc capability. Table 3-1 at the end of this chapter, displays these figures. NPCC statistics are shown below:

Fuel Used to Generate Electricity

	New York			New England		
Fuel	1977	1978	1979	1977	1978	1979
Oil	45%	44%	36%	57%	58%	56%
Nuclear	18%	18%	17%	34%	35%	34%
Coal	15%	16%	17%	3%	2%	4%
Hydro	22%	22%	24%	6%	5%	6%
Gas	--	--	6%	--	--	--

As of 1 January 1978, the utility members of the Northeast Power Coordinating Council, which supplies 98 percent of the electricity consumed in the seven States, had a hydrogenerating capability of 7,956 MW. In addition, small unreported plants, primarily industrial, are estimated as having a 461 MW capacity. The hydropower capability of reporting utilities is listed in Table 3-2 at the end of this chapter. New York's capacity is about three times larger than the hydropower capability in New England.

NEPOOL utilities report several small hydropower plants or additions in New England are in construction, planning or licensing phases, among which are Lawrence (15 MW), and Hadley Falls (15 MW).

NYPP utilities also report several small hydropower plants or additions in New York are in construction, planning or licensing phases, among which are Granby (10 MW), Trenton (9 MW), Hudson Falls (60 MW), Fort Edward (10 MW), and Glenn Park (20 MW). The Federal Energy Regulatory Commission has a complete and up-to-date listing of all pending hydropower projects. The role of FERC is described in Chapter 3.1.10.

Virtually all of the hydropower produced in the Northeast is fed into the NPCC interconnected grid. As mentioned earlier, pumped storage is valued for its peaking capability, and it is reserved for this use. Conventional storage has the most flexibility so utilities here schedule it according to demand -- base, intermediate or peaking. Conventional storage hydropower has more dispatch flexibility than run-of-river hydropower, so utilities can control its use. It is always dispatched to give the most economical use, i.e. displacing oil fired generation. Run-of-river hydropower which does not have dispatch flexibility is used as the water is available to displace oil fired generation. Since it must be taken around the clock in the Spring, the oil fired generation it displaces during off peak hours is of much less value than that displaced during on peak hours.

Private investors own practically all of the New England subregion's hydropower capability, but the situation changes in New York. There, only 20 percent belonged to investors in 1977; the State owned the rest. Small, non-member plants, primarily industrial, have a capability that totals about 460 MW. Table 3-3 presents hydropower ownership in the Northeast in more detail. The marketing agency with jurisdiction over Federal Projects in New England and New York is the Southeast Power Administration, U.S. Department of Energy.

3.1.3 Parameters Governing the Use of Hydropower

The present value and future prospects of hydropower can best be judged when the impacts, benefits and limitations involving its use are known. The various characteristics of hydropower projects are briefly

described in this section as are the traditional barriers to its development. Developers of small sites have been deterred by the high cost of both equipment and financing and a hodgepodge of Federal, State and local regulations. Their problems are finally being addressed and small hydro development is again attracting the interest of investors, municipalities and individual site owners in the Northeast. The barriers to big projects, however, remain largely unchanged. Construction financing remains as one of the major obstacles to small hydro development.

The reader who is seeking an in-depth treatment of these subjects is referred to Volumes V through VIII of the NHS report.

3.1.4 Facilities

Traditionally, turbines and generators have been custom designed for each small damsite, presenting unusual difficulties for developers. Technological advances in standardization of this equipment have recently been achieved, which has the effect of shortening the design and construction phase of small hydro development.

Hydroelectric facilities have the capability of almost instantaneous response to load demand. Opening the gates to release the impounded water is all that is necessary to begin producing electricity. Another advantage of water power facilities is their exceptionally long useful life. Their average expectancy of 100 years is two to three times longer than the average span of thermal plants. During this 100 years, hydroelectric power plants are extremely efficient. About 90 percent of the available energy is converted to electricity by modern turbines and generators.

3.1.5 Hydrology and Terrain

Hydroelectric facilites convert the energy of streams and rivers as they flow from elevated inland areas to the ocean. Facilities should be located at a point that will produce as great a fall of water as possible, because the amount of power produced is directly proportional to this elevation difference, called head.

In the Northeast most conventional hydropower development has taken place on tributary streams leading to the main rivers, and the reservoirs are relatively small. The surrounding terrain of wide, glacial-worn valleys, where higher dams would inundate relatively large land areas,is already occupied by development such as railroads, highways and villages. The region has no deep narrow canyons, which would permit shorter lengths of dams with deep reservoirs such as those built in the Far West.

Because of the varying topography here, no evaluation has been made of the average acreage of reservoir needed to produce hydropower. The acreage required is decided on a site specific basis, for the capacity of a plant and the elevation difference dictate the amount of storage water

required. With a conventional dam system, the amount of acreage also depends on the terrain. The flatter the land, the more area a reservoir will inundate with a given amount of water.

Most of New England's hydropower potential is in the three northern States -- New Hampshire, Maine and Vermont. Their terrain is mountaineous and hilly; their drainage watersheds are bigger; and the rivers there are larger.

3.1.6 Environment

Hydropower generation is one of the most environmentally compatible sources of new electric capacity. The water that turns turbines release no pollutants into the atmosphere, nor does it leave behind radioactive wastes. No hot water is discharged back into the streams. Its facilities are relatively clean, quiet and unobtrusive. Hydropower has no surprises; its impacts are understood and predictable.

Existing dams that have not been fully breached have reservoirs which, in most cases, would not be increased in size by the addition of hydropower facilities. Retrofitting would, therefore, have little effect on existing ecosystems, which have already stabilized around the dams and now depend on them. In those instances where breached dams or undeveloped sites become the subject of power development studies, considerable research into environmental impacts would have to be carried out on a site specific basis.

Construction of big projects with large reservoirs is another matter, for they have a major impact on surrounding ecosystems, and property for the project is removed from other uses. During the years it takes to fill such a reservoir, terrestrial habitat is being converted to aquatic habitat. Streams running through the impounded area are changed from a flowing to a standing water habitat, shifting the makeup of the aquatic ecosystem in the streams' affected reaches. Several years are required for the terrestrial and aquatic ecosystems to fully adjust to a manmade lake.

Technology is now available to minimize or solve other environmental problems such as the change in downstream oxygen content that results from water releases. In the past, this change has adversely affected aquatic plants and organisms. On the other hand, the use of dams can safeguard the quality of river water. During dry spells, releases of impounded water augment the low streamflow and protect aquatic plants and organisms.

The major environmental losers where dams are involved, of course, are the fish. Much concern has been expressed by resource agencies and private conservation interests regarding the provision of adequate streamflow at all hydropower sites - existing and proposed. Moreover, as water quality improvements are made, the possibility of restoring anadromous fisheries increases for numerous sites in the study area. Many

streams already have existing or restored runs of anadromous fish. Much success has been achieved with special passages or ladders that can safely route the majority of fish around dams and power facilities. They are quite expensive to build, however, and would be installed at small projects on a case-by-case basis or perhaps added at a later date.

Because environmental impacts do vary according to the site, this inventory of existing dams and undeveloped damsites in the NPCC region could not study environmental constraints in depth. The Wild and Scenic Rivers Act was the basis for the environmental portion of this study. Volume VIII of the NHS report is, however, an environmental assessment of impacts of hydropower development on a national basis. The findings of that separate study would be applicable to the Northeast.

3.1.7 Economics

The NHS study has identified both the technical feasibility and the potential profitability of installing hydropower at existing dams and undeveloped sites. In New England the State with the greatest potential for economical development is Maine. It is followed by Vermont, New Hampshire, Massachusetts, Connecticut and Rhode Island, in that order.

Hydropower is relatively inexpensive once in operation. The lowest electric bills in the country are charged in the Pacific Northwest, where half of the region's electricity is generated at dams. However, initial construction costs are relatively expensive.

Although hydroelectric capital construction costs are high, these facilities are cheaper to operate, supervise and maintain than other power plants. Fewer workers are required, and the fuel -- water -- is free and therefore inflation-proof. The technological advances made in standardizing small-scale hydroequipment will bring capital cost down, alleviating a big problem faced by developers. In fact, the U.S. Department of Energy has found that as much as a 30 percent savings in the cost of small hydroequipment can be achieved with standardization. This is no small item since the turbine-generator package represents up to half the construction cost of such projects. Economies of scale can be applied to very large projects, and multiple project uses can further decrease the cost of hydropower construction.

High capital costs make hydroelectric projects extremely sensitive to favorable financing. Unfavorable borrowing terms have deterred investors in the past, but assistance for small-scale developers is now available, as explained later in this section.

An economic advantage of run-of-river facilities is their location which tends to be near population centers and does not require lengthy transmission lines. Large projects, though, are usually distant from the cities that need their electricity. Of course, a project such as Niagara is an exception. In this study area, site location is not as much of a

handicap because an extensive network of transmission lines has been established over the years. A disadvantage of run-of-river is their vulnerability to drought. Their intermittent nature makes them less valuable to utilities, which use their power for base and intermediate demand.

The large conventional and pumped storage projects are valued by NPCC utilities because they produce firm, or dependable power; and they are the most economical large-scale storage medium for electric energy available today.

Perhaps the most reassuring aspect of hydropower from a financial viewpoint is that it is a proven energy source, using a mature technology, with a worldwide established industry and engineering base.

3.1.8 Other Water Uses

The Northeast's major energy source -- oil -- is becoming increasingly expensive; but water, which is free for the taking, is more precious. All the impounded water behind the region's operational dams is being diverted to municipal, industrial or agricultural water supplies or is intended for navigation, water quality control, flood control, recreation or hydropower. The Corps, for instance, owns and operates 31 dams in New England; all have the primary function of flood control.

Reservoirs can have multiple purposes, however, without a proportional increase in costs. Some uses are compatible; a few are not.

The Corps, for example, has begun studying the practicability of installing hydropower at its New England flood control dams. Water supply projects and their operations can also be designed or modified to include hydroelectric generation. With water consumption increasing from year to year, provisions will have to be made to increase the regional supply. Water supply dams will become more numerous.

Maintaining an acceptable level of water quality is a major sanitary function of all types of reservoirs. Releases of impounded water during dry periods augment the reduced flow of streams. The requirements of aquatic organisms for adequate streamflow should be included as a water use that may be at odds with the most economical plan for a specific hydroelectric project.

Building reservoirs for water-oriented recreation is not practical, and recreation as an additional use is decided on a site-by-site basis. Swimming and boating are often considered unsanitary in impounded water intended for a municipal water supply. Where there are large fluctuations in the water level, safe boating and other activities are endangered. In parks and on rivers throughout the Northeast, dams and reservoirs for any purpose have been prohibited to preserve recreational opportunities. The

Wild and Scenic River Acts is one such case. Examples are Maine's Allagash River, popular with whitewater canoeists from all over New England, and New York's Adirondack Mountain Park.

Waste assimilation can be impeded by reservoir storage projects. Especially in the densely populated States like Connecticut, where some of the rivers have long contained unwanted materials, impounding too much river water can create safety hazards. Waste already being discharged into a stream requires a minimum streamflow for assimilation.

A major water use that is not compatible with hydroelectric generation is irrigation, but our abundant rainfall permits Northeastern growers to rely much less on this practice than do farmers in other areas, particularly the West and Southwest. Where irrigation is a demand, storage is insurance against drought and would not normally be released to turn turbines at a power plant.

The region's biggest electricity producers, the large thermal power plants, do not compete with hydropower facilities in New England. The region's streams are too small to support their large cooling water requirements. Lack of sufficient cooling water forces the planner to locate sites for stream-electric facilities on the coast where adequate cooling water is available.

3.1.9 Social

Hydroelectric specialists at all seven State energy offices have been contacted to learn whether organized opposition to installing hydropower at existing dams does exist. Such development is generally favored, except by a few fish and game agencies who believe that any dam is detrimental. On a site specific basis, opposition can be expected to develop in proportion to any change to the river that would occur. For instance, an obstructed view or an impact on waterfront property would be unacceptable to the affected person. The social climate surrounding undeveloped sites is more controversial due to conflicting land uses or resulting changes in the environment that would be unacceptable to some.

Local communities tend to approve hydropower development at existing dams. Many of them are expressing interest in installing small facilities to power municipal buildings, street lights and so forth. Having their own power source can give communities greater control over electricity supplies and help them to keep down costs. Consumer attitudes toward conservation could possibly be affected by the use of hydropower generation. In Marin County, California, for instance, water consumption has declined substantially since the long drought of the mid-1970's. Hydropower is vulnerable to variations in rainfall and streamflow, so sensitivity to waste of electricity may increase, especially during dry spells.

Because of the relatively small size of existing dams in the region, construction activities during retrofitting would impact only on a small segment of the population. Construction of a power plant would require a temporary concentration of workers and materials for one to two years, depending on the amount of work required to rehabilitate the existing facilities and install power equipment.

Compared to the construction phase, activity during operation would be on a small scale because modern hydroelectric projects are heavily automated. The main activities are keeping the facilities in good repair. The mere existence of a hydroelectric plant may have a substantial impact on a community's fiscal situation if it is subject to local property taxes; but its operation would have little direct effect on the residents.

Connecting lines from existing dams to the region's extensive transmission system would be relatively short. A great deal of the land required for transmission can be used for other purposes by landowners or the general public as long as there is no conflict with transmission and maintenance.

Because dams maintained in operating condition, are much less hazardous than neglected structures that are allowed to deteriorate, retrofitting can be considered a benefit to society. Since there are several hundred dams in the Northeast that have been identified as technically feasible for hydropower retrofitting, the marginal increase in public safety could be quite significant.

3.1.10 Institutional

The regulatory climate in the United States is changing in favor of small-scale hydropower development. In the last two years the Congress has passed and the President has signed into law three major pieces of legislation that encourage such development -- the 1978 Public Utility Regulatory Policies Act (PURPA), the 1980 Crude Oil Windfall Profit Tax Act, and the 1980 Federal Energy Security Act.

Provisions in all three laws are directed toward the same end: solving the developer's problems with confusing regulations and obtaining favorable financing. Before discussing these three laws, it is important that the reader understand how hydropower is regulated. This task has been assigned to the Federal Energy Regulatory Commission.

Before developing or retooling a dam for hydroelectric power a developer must learn which agency has jurisdiction over the dam. The Federal Energy Regulatory Commission (FERC) has primary Federal jurisdiction in the regulation of dams used to generate electricity -- a broad power that covers four types of hydroelectric projects: projects located on navigable waterways; projects affecting interstate commerce; projects

which use Federal lands; and those projects which use surplus water or water power from existing Federal dams. The others fall under the jurisdiction of individual states.

Once FERC jurisdiction is established, the developer files with the FERC for either a preliminary permit for exploration or an application for a license to proceed immediately with development. Permits are optional but they do give the developer exclusive rights, and thus time, to study the feasibility of developing a particular site. Most permits are good for three years. Within this time, the developer must either file for a license or risk losing claim to the site. The permit process can be bypassed if a developer has shown that a site is, in fact, feasible in terms of economics, environment, and engineering.

Licenses are of two types: one applies to minor projects (less than 1500 kilowatts in capacity), and the other to major projects (more than 1500 kilowatts capacity). As an incentive to development, the FERC has streamlined applications for minor projects by introducing a shorter application form. The FERC hopes that this abbreviated form will cut the FERC decision-making time from two years to one.

The big breakthrough came with PURPA, which was part of the National Energy Act. Not only did it direct the Federal Energy Regulatory Commission (FERC) to streamline its own licensing procedures for small-scale hydro; it also authorized the Commission to exempt small-scale hydro developers from traditional regulation of State and other Federal agencies. The Commission expects at least a year will be lopped off its normal two year licensing process for existing dams. State regulatory authorities must implement the Federal Energy Regulatory Commission regulations, authorized in PURPA, within one year of 20 March 1980.

In the past, utilities and small power producers have disagreed on the value of run-of-river hydropower. PURPA addressed the pricing conflict by setting criteria and directing States to establish purchase standards based on avoided cost; i.e., the same as what it would have cost utilities to purchase incremental power from an alternative source, such as oil, rather than the average cost of their entire system.

Having set pricing criteria that would benefit small producers, PURPA went on to guarantee them a market for their power. Utilities near qualifying hydro facilities (80 MW or less) are required to physically connect their facilities with such plants and to purchase their power.

To help potential developers get started, PURPA established the low interest Small Hydroelectric Loan Program in the Department of Energy. Up to 90 percent of the cost of a feasibility study and the cost of licensing or gaining approval can be borrowed. There is a maximum limit of $50,000. The Department of Energy also has a grant program for demonstration projects. Demonstration grants have been awarded to five projects in New England and provide a portion of the project's construction costs. These

grants are no longer available as they were awarded under previous Program Opportunity Notices (PON). In addition, the Department of Energy has an Appropriate Technology Small Grants Program designed for individuals, non-profit agencies, State and local governments, small businesses and Indian tribes to provide grants of up to $50,000 for energy related ideas and inventions dealing with conservation or renewable energy resources.

The Federal Government's second big boost to small-scale hydro development came in 1980. The Windall Profit Tax Act addressed the traditional problem of financing by authorizing tax credits of up to 21 percent. A 10-percent investment tax credit can be taken for developing impoundments in existence as of 18 October 1979. An additional 11 percent tax credit can be deducted for existing sites with a capacity of 25 MW or less. Projects with a capacity in the 25 MW to 125 MW range are allotted a declining percentage of this 11-percent credit. Available through 31 December 1985, this feature of the law is attracting people with large sums of money who are looking for a tax shelter.

The Windfall Profit Tax Act further authorized tax-exempt industrial development bonds for projects of 25 MW or less. This is an important step because tax-exempt bonds almost always have low interest rates, resulting in lower financing costs for developers.

This law not only reduces the cost of financing small hydropower projects, it also provides flexible mechanisms for taking advantage of its various benefits. The Act's authorization, for example, would permit 50 percent of a small project to be financed using a syndicate to take advantage of the investment tax credit and 50 percent through industrial bond issues.

The third piece of legislation with provisions to facilitate small hydro development was passed recently. This legislation is called the Synfuels Bill (Federal Energy Security Act). This bill addresses licensing exemptions in an amendment to Section 408(1) of PURPA. It states that FERC may grant an exemption from licensing requirements to certain hydroelectric power projects having a proposed installed capacity of 5000 kilowatts or less. This act could serve to boost the development of small scale hydroelectric power.

In general, licensing or approval can be achieved much faster by private interests or municipalities than by a Federal agency such as the Army Corps of Engineers. Non-Federal developers are under the jurisdiction of the Federal Energy Regulatory Commission as described above Federal developers are governed by the Water Resources Council, which has established more and lengthier procedures that must be satisfied. Following that process, a special authorization must be obtained from Congress for small as well as large projects.

3.1.11 State and Local

The 50 States are scrambling to catch up with the new Federal regulations. All seven Northeastern States now have in their energy offices a specialist who is assigned to the hydropower area. The specialists have all been asked about the regulatory climate in their States. From the conversations, a picture has emerged of a continually changing situation. The Northeastern States all are in the process of complying with PURPA. All are forming or conducting information programs about small hydro development. And all say there is a growing interest in the private and public sectors in the special advantages of small hydropower projects.

Conditions are changing too fast to warrant a detailed examination of each State's progress here. An entire document (Volume V) of the NHS report is devoted to this subject. However, a few highlights are presented in this section to give the reader a general understanding of the current regulatory trend toward small hydro development in New England and New York.

Several States have already streamlined their licensing procedures for applicants, who usually work through both State and Federal processes concurrently. The Massachusetts Energy Facilities Siting Council coordinates on all applications at the first stage of the 3 to 4 month process. It has an over-ride ability, on appeal, at the conclusion. Six to eight agencies, depending on the site, review every application. (As of summer 1980, 20 projects were in the study, licensing or construction phases in Massachusetts.) New Hampshire's average licensing time for existing dams is 3 to 4 weeks. One-stop licensing systems are in effect in Vermont and Maine. The Vermont Public Service Board has final authority and also assists developers with the State regulatory process. Certification is granted in about three months, if there is no opposition. Maine's one-stop agency, the Department of Environmental Protection, can license a small project at an existing dam in less than 60 days.

New Hampshire is leading the way in establishing minimum purchase prices for power produced at small projects. Utilities must pay 7.7 cents per kilowatt hour (KWH) for intermittent power and 8.2 cents per KWH for a firm supply, making a greater number of sites economically attractive. Utilities there have petitioned for a rehearing on these purchase prices. Mini-PURPA rates, so called because they were mandated by the Public Utility Regulatory Policies Act (PURPA), are not expected to be quite this high in the other six States. Vermont, among others, is making progress. Its legislature recently passed a bill requiring utilities to purchase power from small producers and authorizing the Public Service Board to establish purchase rates.

Some States are giving financial assistance to small hydro developers. The New York Legislature alloted $500,000 to the Polytechnic Institute of New York, principally for the area of hydropower redevelopment. This money was in addition to the New York State Energy Research

and Development Authority budget which among other expenditure, has entirely funded 20 prefeasibility studies as well as some construction costs at 10 sites. Rhode Island has granted a 10-percent nonrefundable income tax credit (maximum of $50,000) for the purchase of hydroelectric equipment. A real estate tax exemption for all hydro activities has been authorized in Massachusetts. The Bay State also set up a one-time, $1 million bond program for study design or construction of small hydro projects. It was issued in summer 1980. Vermont allows negotiated payment in lieu of taxes for hydroelectric facilities up to 30 MW. Other States, such as Maine, have tax incentives for wind and solar energy but not for small hydropower development.

Technical assistance is being offered to potential developers and individual site owners by all the States in this region. Connecticut, for instance, is holding workshops on overall potential of small sites, on the prefeasibility, assessment and licensing process, and on contracts and financing. This State also is sponsoring a study team, which is investigating the possibility of developing a 400 KW, State-owned demonstration facility as a basis for advising developers of problems, barriers and the use of marginal sites.

Connecticut is one of the States that is really just beginning its hydropower planning. Maine, for example, has more hydropower potential; and its energy office has been strongly interested in this renewable energy source for several years. Its Office of Energy Resources is holding workshops and assisting with preliminary feasibility studies. The staff helps developers with securing financing from private lenders. The office also is working with equipment suppliers for the very small, micro site developments.

Handbooks for prospective developers are being prepared by Massachusetts and Vermont. Massachusetts, in August 1980, sponsored a Statewide conference for everyone interested in hydropower development. Information was passed on to the participants, and it was intended that an informal communication network would result.

An innovative action in New Hampshire should lead to more hydro development there. The State, which owns more than 100 dams, will lease five or more, with a potential of 1 MW to 5 MW, to private developers through competitive bidding. The Connecticut Energy Division, too, is interested in devising a new policy that would allow municipalities or the private sector to develop State dams.

Local regulations take the form of zoning laws, ordinances and historic districts. Communities are generally in favor of installing hydroelectric units at existing dams. In any case, local regulations are usually subordinate to the State. In Massachusetts, the State has provided incentive. Rather than merely authorize a property tax exemption for hydro activities, it has authorized hydropower facility owners to make a payment in lieu of taxes which shall be at least 5% of its gross income in the preceeding calendar year (M.G.L., Ch. 367).

Significant legal restrictions on small-scale hydropower development do remain. Standards setting a minimum streamflow that must be maintained to protect water quality are written into all Federal licenses. Fish passageways would be required at dams on rivers designated under the 1969 Anadromous Fish Conservation Act and subsequent Amendments. This is an effort to restore a spawning population of Atlantic salmon and shad to major rivers.

On a site-by-site basis, any of a number of laws might apply. Legislation has been enacted to protect other water uses such as recreation, fish and wildlife, endangered species habitat and historic sites.

3.2 OTHER POWER SOURCES IN THE NORTHEAST

Hydropower's potential contribution to the Northeast can be put in perspective by first examining the role of other power sources used here. The primary fuels bought by utilities vary across the country. In New England and New York, half of the power is generated with oil, compared to a Nationwide average of only 17 percent. (See Table 3-1 at the end of this Chapter.) Nuclear accounts for nearly one-quarter of the power generated in the NPCC study area. Hydropower accounts for 15 percent while coal contributes 10 percent. Gas at 0.2 percent is not a significant fuel for power in the Northeast. There are no Federally owned generating facilities in this seven-State area, as is shown in Table 3-4; and nearly all of the utilities are investor-owned.

Since the NPCC utilities use so much oil, it is not surprising that the area's electric bills are high. The marked differences in regional costs are clearly shown in the following table, which was prepared when oil was much cheaper than it is today.

This heavy dependence on oil in NPCC, which is far greater than in any other reliability council, has troubling implications both for the cost and for the reliability of electric power. The cost implications are currently being felt, as oil dependent utilities and their customers suffer from oil price increases.

Interruptions in fuel oil supply could play havoc with the reliability of electric power supply in the oil-dependent areas of NPCC - with consequences even more damaging to the Northeast than those resulting from exponentially increasing oil prices.

The members of NPCC are striving to reduce the hazardous dependence on oil:

1. By continuing to encourage efficiency in the use of energy in their own operations and by their customers;

2. By working through their own and neighboring power pools to dispatch available generating units so as to reduce the use of oil to the extent feasible;

3. By applying the lessons of Three Mile Island as expeditiously as reasonably possible to nuclear units already in commercial operation and to those under construction, with a view to shifting as much load as possible from oil to nuclear generation.

4. To the extent environmentally and economically feasible, by converting oil-fired generating units to the burning of coal.

The problem of oil dependence would, today, be much worse than it is except for the substantial success achieved in efforts described under items 1 and 2 above; however, any real progress toward solving the problem will depend on increasing nuclear generation and on converting oil-fired units to coal.

	Cost ¢/KWH Residential	Difference From National Average	Cost ¢/KWH Industrial	Difference From National Average
TOTAL U.S.	2.1	0%	.9	0%
New England	2.6	+24%	1.4	+55%
Middle Atlantic	2.6	+24$	1.2	+34%
E.N. Central	2.3	+10%	1.1	+22%
W.N. Central	2.4	+14%	1.3	+45%
S. Atlantic	1.9	-9%	.9	+7%
E.S. Central	1.4	-33%	.7	-22%
W.S. Central	2.1	0%	.8	-11%
Mountain	2.1	0%	.8	-11%
Pacific	1.7	-19%	.6	-33%
Alaska and Hawaii	2.8	+33%	1.5	+67%

Berkshire County Regional Planning Commission, Massachusetts, "Evaluation of Power Facilities," April 1974.

Power production technologies dictate that the fuels should be used in different ways. An expensive nuclear generating facility, for example, should run at a constant output throughout the year, whereas a turbine unit, which uses very expensive fuels, may be switched on and off to meet the peaks of power demand with little loss of efficiency, if designed for that type of operation, i.e., intermediate and peaking units. Thermal plants -- oil, coal and nuclear -- are expensive to build and mechanically are the most sophisticated. They achieve a good utilization of fuels, but because of their complexity, they are used to satisfy continuous, baseload demand and should be shut down only for maintenance or for nuclear refueling. It should be noted that the construction of new oil thermal plants are no longer allowed, except for gas turbines. Steam oil units are much less expensive than both coal and nuclear.

While nuclear power plants are used exclusively for baseload generation, oil and coal can also be used in the intermediate range, which requires operation for about 12 to 15 hours a day. These intermediate facilities are usually units that once served as baseload plants but are assigned fewer hours of use as they approach obsolescence and become more expensive to operate.

The particular mix of fuels used to generate electricity in the Northeast is determined by environmental factors as well as cost. Reducing air pollution has become one of the most important constraints. This makes natural gas a desirable fuel. The inadequacy of present gas supplies has contributed to foreign oil's becoming the primary source of electric power generation here. More recently, to avoid the escalating costs of residual oil, Northeastern utilitities have been turning to nuclear power plants. Concern over safe disposal of cooling water discharges, nuclear wastes and operational procedures at these plants, however, has delayed the construction of new baseload nuclear facilities.

The environmental impacts of coal and oil burning power plants are well known. Nearly 50 percent of the sulfur dioxide pollutants (divided about equally between nitrogen oxides and particulate matter) found in our air are discharged by fossil-fired plants. Coal, oil and nuclear plants also discharge heated water from their cooling systems back into adjacent water bodies, which affects the aquatic ecosystems. In addition to the heat released into streams, coolant water may contain additives such as acids or chlorine that can create problems. Water quality standards are now applied to these discharges at newly constructed plants.

Safety hazards associated with power production have been investigated by the American Medical Association. Their study estimates that total risk to human life from mining, transport, pollution, accidents, radiation, and so forth are substantially greater for coal and oil than for nuclear and gas per unit of electricity generated. Long term effects of nuclear power and burning of fossil fuels have not yet been fully determined.

3.2.1 Oil

Half of the electricity generated in 1977 by study area member utilities was fueled by oil, compared to only 17.2 percent Nationwide. Oil is used by New England and New York utilities to supply base, intermediate and peak demand. Regional oil-burning power plants have an availability rate (caused by forced outages and maintenance shutdowns) that runs between 70 and 95 percent.

3.2.2 Impacts

Oil is cleaner than coal, but oil-fired power plants still pollute the air and discharge heated water into rivers. It is certainly a convenient energy source, but its cost is rapidly escalating, making oil

our most expensive power fuel. This region's supply is subject to periodic disruptions such as the 1973 Arab oil embargo and the recent Iranian revolution. OPEC oil makes up 40 percent of New England's total energy supply.

3.2.3 Future Potential

By the year 2000, oil-generated power is expected to decline to 10-14 percent of NPCC's baseload, 8-10 percent of its intermediate supply and 8-9 percent of its peaking power. New England and New York would be using approximately the same percentages for base and peak supply. In the intermediate range, however, New York is expected to use only 5-8 percent as opposed to New England's 10-13 percent. (See Volume IV of the NHS report).

Reducing oil consumption has become both a National and a regional goal. Every committed and planned NEPOOL retirement of generating equipment in New England between 1980 and 1996 is an oil-buring unit. These old units have become inefficient and uneconomical to operate. No new oil-burning units are being planned or even considered by NEPLAN (planning unit for the New England subregion of NPCC). This is due, not only because of effort to reduce oil consumption, but also the Department of Energy's (D.O.E.) restrictions on construction of new oil-fired cpacity. However, four oil-fueled plants already in construction are designed to add 460 megawatts (MW) to NEPOOL's capacity by 1983. The largest, a 340 MW combined-cycle plant that will burn number 2 fuel oil, is being built by the Massachusetts Municipalities Wholesale Electric Company.

The national goal of reducing foreign oil consumption will have the effect of sharply reducing oil supplies from present levels, even with the completion of offshore, oil producing facilities.

3.2.4 Nuclear

Nuclear energy has a greater role in the NPCC region than in the country as a whole: 24.1 percent here as compared to 12.3 percent in the rest of the United States in 1977. Nuclear power is cost competitive here because fossil fuels are quite expensive by the time they reach the New England - New York area. In these seven States, nuclear energy is used to help meet the continuous, baseload portion of demand. Seven nuclear units are in operation in New England. The last unit came on line in 1975. Four more plants are scheduled; each has a planned capacity of 1,150 MW. They are Public Service Company of New Hampshire, Seabrook #1, April 1983 and Seabrook #2, February 1985; Boston Edison Company, Pilgrim #2, December 1985; and Northeast Utilities of Connecticut and Western Massachusetts, Millstone #3, May 1986. The availability (caused by forced outages and maintenance shutdowns) at existing New England nuclear units runs at 70-72 percent.

3.2.5 Impacts

Nuclear-generated electricity is relatively cheap baseload power in the Northeast, even though capital and operating costs have been rising. Insurance rates have also risen since the Three Mile Island accident in Pennsylvania.

Nuclear plants neither rely on depleting deposits of fossil fuels nor release sulfur compounds and carbon dioxides into the atmosphere. They do, however, release more waste heat per kilowatt produced than fossil-fueled plants. At plants without cooling towers, this waste heat is discharged into water bodies, affecting their aquatic ecosystems.

The technical problems of safe nuclear waste disposal and plant decommissioning have yet to be satisfactorily solved. Public concern and citizen opposition have been stimulated by short and long term radiation hazards as well as the threat of catastrophe.

3.2.6 Future Potential

Although nuclear constructon here is currently making "negative" progress, projections say it should supply 26-30 percent of the region's continuous baseload demand by the year 2,000. (See Volume IV of this NHS report). NEPOOL projections indicate this figure could be as high as 60-80% of base load. In New England 31-35 percent of the growing demand would be met by nuclear. NEPOOL projections indicate in New York 25-30 percent of the baseload would be nuclear.

However, delays in siting and licensing of nuclear plants have plagued members of the Northeast Power Coordinating Council.

Apart from the strong protests, regulatory delays and changing requirements, some people estimate that the world's supply of uranium-235, the fuel used by conventional nuclear plants, may be depleted in as little as 30 years if nuclear usage continues to increase. The Soviet Union has just put into operation a plutonium breeder reactor, whose nuclear fission produces reusable plutonium fuel. It is believed France also has one or two of these plutonium breeder reactors. The 600 MW power plant is a scaled-up version of their 1973 prototype. In the United States there is opposition to the breeders. The long-lasting plutonium they produce is highly toxic and can also be used to make nuclear weapons. Power plants using fusion reactions similar to those occurring in the sun are another possibility, but fusion technology is still in the experimental stage.

3.2.7 Coal

As recently as 1966, coal generated half of the region's electricity. By 1977, however, only 10.5 percent of NPCC's power was supplied by coal-burning units. NPCC utilities burn coal in steam-electric plants to help meet the continuous, baseload segment of demand. Coal also is used to generate electricity in older, less efficient facilities to supply intermediate demand.

In 1978, the coal-fired steam units in New England had a total capacity of about 450 MW. A coal-burning facility that would more than double this amount is scheduled to be added to the NEPOOL system. Central Maine Power Company's 568 MW base-intermediate load unit at Sears Island is planned to come on line in November 1989. New England Power Company is converting it's Brayton Point Units 1, 2 and 3 (1162 MW) to coal; scheduled for completion in mid-1982. Even with cleaning systems, coal-fired units have a better heat rate than nuclear units, not better than oil or gas.

3.2.8 Impacts

Although coal is the country's most plentiful fossil fuel and it is a relatively cheap resource, transportation, handling and storage costs make it an expensive energy source for utilities in the Northeast. The additional cost of meeting current air quality standards is quite high. Expensive flue gas desulfurization systems are required at each power plant to reduce air pollution.

Sulfur compounds released into the atmosphere are now recognized as causing "acid rain," which can seriously affect environments many miles away. For example, fish have vanished from about 200 lakes in New York's Adirondack Mountains. Many people blame the losses on fallout from coal-burning power plants in the Midwest.

A buildup of carbon dioxide in the atmosphere from the burning of coal and oil is potentially dangerous, according to a 1979 study by the National Academy of Sciences. The earth's climate could eventually be changed by a so-called "greenhouse effect," in which carbon dioxide works to trap the sun's heat and raise the temperature of the atmosphere. On the other side, this buildup of carbon dioxide could cause an iceberg melt.

Much of the country's remaining coal deposits would have to be strip mined. This process has a devastating effect on the land and water in the vicinity.

3.2.9 Future Potential

Coal's future here is somewhat clouded by citizen opposition. But by the year 2000, coal is expected to generate 22-25 percent of NPCC's base-load and 5-8 percent of its intermediate supply. New York utilities would be slightly more dependent on coal, 20-25 percent baseload and 5-10 percent intermediate load, compared to New England's 16-20 percent and 6-8 percent, respectively. (See Volume IV of this NHS report.)

More than 90 percent of all proven fossil energy resources in the United States is coal. The only known deposits in the study area however, are in the Narragansett Bay Basin in Massachusetts and Rhode Island, where geological constraints make the anthracite coal seem too expensive to

mine. Over 6.7 million tons of coal have been defined in this area with exploration continuing. This coal will be tested and burned in a Fluidized Bed Boiler to determine its combustion characteristics. Member utilities in the NPCC study area will continue to import coal that is mined in northern Appalachia, from northern West Virginia into southern Pennsylvania. Coal in that area generally has a high energy content with low ash, which minimizes transportation costs. Increased demand and reserve depletion will require new mines, which may be more expensive operations. Due to the remoteness of the coal fields, no commercial coal slurry pipeline operation is anticipated for the NPCC region.

Despite these problems, coal conversions are being considered at several oil-fired plants in the region to reduce fuel costs, although savings would be partially offset by the cleaning systems that are required to meet air quality standards.

Three such conversions, already started along Narragansett Bay, Massachusetts, should be completed by 1983. Brayton Point (1150 MW) is one of these. Changes earlier in history were in reverse -- coal to oil. The New England Energy Congress reports that more than 20 such conversions took place between 1967 and 1979 for economic and environmental reasons.

3.2.10 Natural Gas

Although more gas fired gas turbine capacity has been added by NPCC utilities since the Northeast power failure of 1965, in 1977 natural gas still supplied only 0.2 percent of the region's electricity. The Nationwide average is 13.7 percent. The gas turbines are used to meet sudden increases in load demands. They provide standby, peaking power for emergencies, because the equipment can be started in minutes. Some small electric systems here also use gas turbines to meet baseload demand.

3.2.11 Impacts

Natural gas is relatively clean, and no onsite storage is necessary. The region is located at the end of the supply line, however, and 60 cents of every dollar that New Englanders pay for natural gas is for pipeline transmission costs. Fuel accounts for 77 percent of total production costs of gas turbine generating units.

Sulfur dioxide emissions are normally low because gas turbines use high quality fuel. Nitrogen oxide emissions are slightly higher than those of a fossil-fueled steam-generating unit of a comparable size.

3.2.12 Future Potential

By the year 2000, natural gas will still be supplying less than 1 percent of the region's power. The NPCC region lacks proven reserves of this nonrenewable dwindling resource, and must compete for natural gas supplies with other areas of the country.

3.2.13 Energy Sources of the Future

Renewable resources, combined with a program of conservation and low growth, offer a partial long term solution to our current energy program. The alternative energy package in the Northeast contains such renewable sources as biomass (wood, urban trash, peat and even chicken manure), wind, water and sunshine.

3.2.14 Wood

One of our most promising renewable fuels for home heating for the future is wood; more than 80 percent of New England is covered by forests. Through the 1930's, 40 percent of New England homes were heated with wood. New England's 36 million forested acres could once again provide large amounts of energy. Trees can now be harvested in 6 to 10 years. This means a tree crop could be replanted every 10 years and that 10 percent of our accessible forests could be harvested every year. Wood is already cheaper than both oil and electricity in northern New England and is cost competitive with electricity in the Boston area.

Wood can be either burned as fuel to produce electricity, process steam and heat homes or be converted into gas to fuel automobiles. In Maine several industrial plants have already converted to wood chips; and in Vermont, the Burlington Municipal Electric Company has applied for a certificate for a 50 MW wood burning plant. In addition, they are presently utilizing a mixture of wood chips and oil in its Moran plant, Units 1 and 3 (17 MW). New York has an extensive program of technical assistance to the private sector upstate for converting coal and oil-burning facilities to wood.

An adverse impact is the air pollution caused by wood's incomplete combustion, but new residential and commercial wood burning equipment now being produced should eliminate this problem. In 1979, 2,841,000 cords were burned in New England and 1,716,000 cords were burned in New York to heat homes.

3.2.15 Peat

Peat is decomposed plant material that has accumulated in a water saturated environment. Like wood, it is a form of biomass with energy potential. Burned widely in Ireland, Finland, West Germany and the Soviet Union, peat has not been utilized in this capacity in the United States. Conventional types of excavating and earth-moving equipment, along with specialized peat extracting machinery, can be used to harvest peat which is generally blown directly into the combustion chambers of steam-electric generating plants. It can also be mixed with coal or oil or converted into synthetic gas, although these do not appear to be profitable alternatives.

A 10,000 acre complex of Maine bogs has the greatest potential in the New England region, but environmental restrictions on stripping wetlands are a serious constraint to peat operations. Bogs are considered to be of significant ecological value. At present, Maine is the only State with a program to assess peat potential for energy use.

3.2.16 Trash

Another promising alternative to fossil fuels is urban trash. The 49 million pounds of refuse and solid waste produced each day by New Englanders could be used to fuel enough steam-electric generating plants to produce the energy equivalent of 13 million barrels of oil per year -- an 11-percent displacement of residual fuel oil usage.

The urban trash has proved to be a competitive alternative in a privately owned plant in Saugus, Massachusetts, which burns 1,000 tons of refuse per day. Other recovery facilities are located in Bridgewater, Massachusetts; Bridgeport, Connecticut; and Long Island, New York. Two more units are being built in New York, one in Rochester and one in Albany.

3.2.17 Wind

Wind could also play an important role in the region's energy future. An average annual wind speed of 18 miles per hour makes New England one of the best areas in the United States for wind energy conversion. While other regions have stronger gusts, New England's breezes are more consistent; and consistency is the key to making electricity from wind.

The wind industry began in the United States about 1850. While designs may change, the technology and hardware remain the same. There are only three major components in a wind machine -- rotor, tower and a mechanism for converting mechanical energy into electrical energy. This simplicity makes wind machines attractive; but high capital costs, interference with television signals, and aesthetics must all be improved before wind power reaches its full potential in the United States. A more efficient battery that could store energy for up to 12 days during calm periods is also needed.

At the present time about 30 machines are operating in Maine, and the State is investigating the establishment of a demonstration program. In Connecticut a demonstration program already is in operation. A Vermont utility is seeking funding for wind-powered generators, while in Massachusetts a proposal has been made for a 161-acre wind farm at Otis Air Force Base. It would cost some $1.0 million for 20 windmills. A 200 KW station is now operational at Cuttyhunk.

3.2.18 Solar

For some States, solar power will be the brighter alternative. There are two types of solar energy systems — passive and active. Passive systems, which have no moving parts, utilize natural existing heat such as sunshine flowing through south-facing windows. Active systems use compressors, pumps, fans and other equipment to transfer energy. Solar power can be used for space and hot water heating and electrical production. There are widely divergent views concerning solar's potential.

Institutional barriers such as mortgages, insurance and zoning restrictions are all drawbacks to solar, but benefits include tax incentives and the fact that it is indigenous, nonpolluting and job producing. Some authorities claim it is our best long term energy buy.

By 1985, passive solar systems could provide the equivalent of 7,500 barrels of oil per day (900,000 installations); and active systems could provide as much as the equivalent of 12,000 barrels per day (320,000 installations), according to the Northeast Solar Energy Center.

In the past 5 years, several hundred solar homes, both passive and active, have been built in Maine; and Massachusetts is providing technical assistance to several companies converting to passive and active systems.

Conversions of sunlight directly into electricity can be accomplished through photovoltaics, which are solar cells. Large scale utilization of photovaltaics will depend on the success of efforts underway to cut their cost and to increase their efficiency. Photovoltaics, or solar cells, are not economical today; but the progress of the scientific community indicates that in the next 2 to 5 years photovoltaics will start to make an impact on the marketplace. Like wind power, there is also a need for an improved storage device.

In the near future, most photovoltaic projects will be decentralized, used in private homes and small buildings rather than in massive collection centers. Someday, however, photovolatic cells could be used along New England streams as a perfect complement to run-of-river hydropower during our hot dry summers.

3.2.19 Tidal Power

Another alternative energy source is tidal power. Electrical generation by this means is similar to conventional hydroelectric production, except that the direction of flow reverses every 6 hours and the water is saline. With this method, a basin is created on the landward side of the facilities so that a difference in water levels between the ocean and the basin exists. Then, as the tide is emptying or filling the basin, its current can be used to turn hydraulic turbines and produce electricity.

Although commercial facilities are operational in other parts of the world, there are no large projects in this country. Only two good tidal power sites are found in the United States -- one at Cobscook Bay in Maine and the other in Alaska. Both have the great range between low and high tides that is required for a large tidal hydropower project. High initial costs have so far kept the project from being constructed. Another drawback to tidal power is the fact that the power output does not coincide with peak power usage hours. There also are some negative effects on marine life in the area. There are a number of small tidal projects in the NPCC study area presently under study. One such study is the Duxbury, Massachusetts site.

3.2.20 Cogeneration

Conservation is another component of our energy package. One important form is cogeneration, which reuses the waste heat produced in electric generating plants. A ship that uses leftover heat from the turbines for heating water, converting salt water to fresh, and space heating is the classic example of cogeneration.

Quite a few cogeneration facilities are expected to come on line in New England over the next several years. Their total capacity should amount to 500 or 600 MW.

Incentives for renewable energy development have been enacted at Federal and States levels of government They take the form of property and sales tax exemptions as well as low interest loans and more favorable utility rates.

According to the Northeast Solar Energy Center, renewable sources could provide up to 18 percent of our energy needs by 2000. The following chart estimates the individual contributions of the various renewables.

1985 Percentage Contribution by Renewable Resources

Technology	% Solar Contribution	Thousands Barrels/Day Oil Equivalents
Biomass (wood)	90.0	300 (or 36MM[1] cords of wood)
Residential and Commercial	3.5	
Heating and Cooling (active)	2.2	12 (or 320K[2] installations)
Passive Solar Design	2.2	7.5 (or 900K installations)
Industrial and Agricultural Process Heat	2.3	8 (or 6K installations)
Wind Energy Conversion	1.5	5 (or 4.5K installations)
Photovoltaics	0.5	1.5 (or 46MM sq. ft. of solar cells)
	100.0	334

SOURCE: Prepared by the Northeast Solar Energy Center

So the Northeast does possess an abundance of renewable energy sources. The development of technologies that will permit their large scale and economical use is progressing. As wood, wind, water, sunshine and other types are developed to their full potential, we should arrange our indigenous resources in a proper regional balance. This would produce a stable energy supply that would complement other energy sources without replacing one form of independence with another.

TABLE 3-1

UNITED STATES
NET ELECTRICAL ENERGY GENERATED FOR 1977*
BY PRINCIPAL ENERGY SOURCES
(Percent of total)

Council or State	Nuclear	Coal	Oil	Gas	Hydro	Geothermal	Others
ECAR	6.4	88.8	4.7	0.1	0 1/	0.0	0.0
ERCOT	0.0	13.3	1.9	84.5	0.3	0.0	0.0
MAAC	20.2	48.5	28.4	0.8	2.1	0.0	0.0
MAIN	23.0	71.4	4.3	0.4	0.7	0.0	0.2
MARCA	28.4	55.2	1.6	2.2	12.6	0.0	0.0
NPCC	24.1	10.5	49.6	0.2	15.6	0.0	0.0
SERC	16.4	57.2	15.6	3.0	7.8	0.0	0.0
SWPP	2.9	12.8	20.0	61.1	2.4	0.0	0.8
WSCC	5.0	24.6	22.2	12.3	34.6	0.9	0.4
Contiguous U.S.	12.4	46.4	16.9	13.7	10.3	0.2	0.1
Alaska	0.0	11.0	14.4	56.2	18.4	0.0	0.0
Hawaii	0.0	0.0	99.2	0.5	0.3	0.0	0.0
U.S. TOTAL	12.3	46.1	17.2	13.7	10.3	0.2	0.2

NOTE: 1/ <0.02%

SOURCES: Computed based on data reported in:

1. Continguous U.S.: NERC, "Eighth Annual Review," August 1978
2. Alaska and Hawaii: EEI, "Statistical Yearbook for 1977," October 1978.

* Net electrical energy does not include energy required for pumping at pumped storage generating plants.

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TABLE 3-2

NPCC STUDY AREA
HYDROPOWER CAPABILITY[1/]
As of 1 January 1978

New England	Conventional Hydro, MW	Pumped Storage, MW	
- Bangor Hydro Electric Co.	29	-	
- Connecticut Light & Power Co.	98	561	(31 Rock River/ 530 Northfield Mountain)
- Hartford Electric Light Co.	10	280	(Northfield Mountain)
- Holyoke Gas & Electric Department	2	-	
- Holyoke Water Power Co.	29	-	
- Main Public Service Co.	2	-	
- City of Norwich	3	-	
- Western Massachusetts Electric Co.	105	190	(Northfield Mountain)
- Central Maine Power Co.	302	-	
- Green Mountain Power [3/]	71	-	
- New England Electric System	584	601	(Bear Swamp)
- Public Service Co. of New Hampshire	48	-	
Subtotal	1,283	1,632[2/]	
New York			
- Central Hudson Gas & Electric Corp.	46	-	
- New York State Electric & Gas Corp.	40	-	
- Niagara Mohawk Power Corp.	661	-	
- Orange and Rockland Utilities, Inc.	44	-	
- Power Authority of the State of New York	2,960	1,000 240	(Blenheim-Gilboa Lewiston)
- Rochester Gas & Electric Corporation	50	-	
Subtotal	3,801	1,240	
NPCC TOTAL	5,084	2,872	

1/ As reported to NPCC; based on winter capability.
2/ 1,000 MW of the total 1,632 MW is located at a site at Northfield Mountain, Massachusetts, and the various utilities have shares in it.
3/ This data is for the entire State of Vermont which, in addition to Green Mountain Power Company, includes Central Vermont Public Service Corporation, Citizens Utilities Company and six Vermont municipals (Barton, Enosburg, Hardwick, Lyndonville, Morrisville and Swanton).

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TABLE 3-3

NPCC STUDY AREA
OWNERSHIP OF HYDROPOWER[1/]
As of 1 January 1978

	Investor-Owned	Municipal	State	Total
New England				
Conventional Hydro				
- Number of Utilities	10	2	-	12
- Capability MW	1,278	5	-	1,283
%	99.6	0.4	-	100.0
Pumped Storage				
- Number of Utilities	4	-	-	4
- Capability MW	1,632	-	-	1,632
%	100.0	-	-	100.0
New York				
Conventional Hydro				
- Number of Utilities	5	-	1	6
- Capability MW	841	-	2,960	3,801
%	20.8	-	79.2	100.0
Pumped Storage				
- Number of Utilities	-	-	1	1
- Capability MW	-	-	1,240	1,240
%	-	-	100.0	100.0
NPCC				
Conventional Hydro				
- Number of Utilities	15	2	1	18
- Capability MW	2,119	5	2,960	5,084
%	39.8	0.1	60.1	100.0
Pumped Storage				
- Number of Utilities	4	-	2	6
- Capability MW	1,632	-	1,240	2,872
%	62.0	-	38.0	100.0

NOTE: The above are plants reported to NPCC by the utilities. In addition, small unreported plants are approximately as follows: New England - 270 MW Industrial, 85 MW Investor-owned, and 25 MW Publicly owned (non-Federal) - Total of 380 MW; New York - 52 MW Industrial, 12 MW Investor-owned, and 17 MW Publicly owned (non-Federal) - Total of 81 MW.

1/ Based on winter generating capability.

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TABLE 3-4

NPCC STUDY AREA
OWNERSHIP OF ALL GENERATION SOURCES[1/]
As of 1 January 1978

	Investor-Owned	Municipal	State	Total
New England				
No. of Reporting Utilities	24	12	-	36
Capability MW	20,632	656	-	21,288
%	96.9	3.1	-	100.0
New York				
No. of Reporting Utilities	7	3	1	11
Capability MW	23,939	134	6,648	30,721
%	77.9	0.4	21.7	100.0
NPCC				
No. of Reporting Utilities	31	15	1	47
Capability MW	44,571	790	6,648	52,009
%	85.7	1.5	12.8	100.0

1/ Based on winter capability.

Source: National Electric Reliability Council, "8th Annual Review of Overall Reliability and Adequacy of the North American Bulk Power Systems," August 1978.

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CHAPTER 4

DEMAND SUMMARY

The Electric Reliability Councils must coordinate complex systems that use a variety of fuels, as explained in Chapter 3, to meet a fluctuating demand. On a typical New England weekday in spring, for example, consumer demand for electricity is greatest from about 10 a.m. until noon. On a typical summer weekday, the greatest demand occurs between noon and 4 p.m. peaking at about 2:00. And on an average weekday in winter, the greatest amount of power is used between 5 p.m. and 9 p.m., apparently when people get home from work, switch on the lights, turn up the heat, and start cooking dinner.

In much of the United States, the highest seasonal peak is reached in July or August. In the cooler Northeast, however, the greatest consumption usually occurs in December or January.

The leveling off to base, or continuous, demand takes place during the night. But the utilities must be sure of having enough power or hand to load the grid at supper time in December as well as at 3 a.m. in May. Their capacity, in other words, must exceed the highest peak of the year with a reasonable reserve margin for maintenance shutdowns and forced outages, or else we face brown outs - even black outs. And this peaking power must be almost instantly accessible through the flip of a switch or the opening of a dam gate.

4.1 CAPACITY

NPCC (U.S. only) contains both summer and winter peaking systems. It currently has a summer generating capability of 50,173 MW -- 20,619 MW in New England and 29,544 MW in New York. This capacity exceeds peak demand requirements by 15,097 MW, representing a 33.1-percent adjusted reserve margin.

The winter capability is 52,009 MW -- 21,288 MW in New England and 30,721 MW in New York. This capability exceeds peak winter demand by 17,598 MW, representing a 38.9-percent adjusted reserve margin.

4.2 ENERGY

A total net energy of 194,212 gigawatt hours was produced by the Northeast Power Coordinating Council system in 1977. The annual demand for energy in the region increased by 2.0 percent from 1976 to 1977 -- 1.9 percent in New England and 2.1 percent in New York. Average growth rate for the 1970-1977 period was 3.5 percent.

NPCC's annual load factor (average demand divided by peak demand for each year) remained remarkably consistent between 1960 and 1977. Based on information from utilities and the Federal Power Commission (now called

Federal Energy Regulatory Commission - since 1978), that 17-year period began and ended with an annual load factor of 62.6 percent. The greatest variations, 65.3 percent and 64.9 percent, occurred in 1974 and 1971, respectively.

The 1977 load distribution of selected representative member NPCC utilities within the study area is listed in Table 4-1. For that year the New England Power Pool supplied 14 percent of its load for peak power, 23 percent for intermediate, and 63 percent for baseload. Twenty percent of Consolidated Edison Company's load in New York was used to meet peak demand, 24 percent provided the intermediate supply, and 56 percent was used for baseload.

Although NPCC's peak usually is reached in the winter, 1977 was an unusual year. The region's peak demand, 35,448 MW, occurred in July. The winter peak of 33,767 MW (95 percent of the summer peak) occurred in December. Peak hour demand increased 4.7 percent from 1976 to 1977, while the average annual growth rate was 4 percent during the 1970-1977 period.

Peak demand from 1976 to 1977 increased much faster in New York than in New England - 9.8 percent compared to 2.7 percent. There was less of a variation in average annual growth rates, however, during the 1970-1977 period. New England's peak demand grew by 3.7 percent, while New York's increased by 2.9 percent.

The 1977 energy, peak demand and load factors for NPCC are presented by month and for the year in Tables 4-2 and 4-3. Table 4-4 lists representative utilities with their peak demand and load factors for selected weeks.

4.3 PROJECTIONS

These projections are based on forecasts by utilities, Federal and private economists, and the Institute of Energy Analysis. The projections reflect the downward trend in projected growth that has become evident over the past decade. Changes in economic and demographic growth, more efficient technologies, and use of conservation measures all contribute to the recent 10 to 20 percent reductions in forecasts across the country. Volume IV of this report explains the methodology used to arrive at specific figures.

Energy demand in New England is expected to grow from 82,800 GWH in 1978 to 194,400 GWH in 2000, an average annual growth rate of 4.0 percent. New England's winter peak is expected to grow at a 3.9 percent rate during that time. NEPOOL projections of these two figures are 2.6 and 2.7 percent, respectively. In New York State, energy demand is expected to increase at an average rate of 3.2 percent a year, with the 1978 demand of 116,000 GWH doubling by 2000. New York State has a lower rate of increasing peak demand, only 3.3 percent a year over the 1978-2000 period.

The load factor in NPCC is expected to remain at its present level for the remainder of the century, between 64 and 65 percent.

Table 4-1

LOAD DISTRIBUTION IN NPCC STUDY AREA
(Percent of Annual Peak Load)
(1977)

Subregion: Representative System	Base %	Intermediate %	Peak %
New England Subregion:			
New England Power Pool			
Off Season	52	18	10
Summer	52	22	14
Winter	63	24	13
Annual	63	23	14
New York Subregion:			
Consolidated Edison Company			
Off Season	33	20	10
Summer	56	24	20
Winter	34	25	11
Annual	56	24	20
Niagara Mohawk System			
Off Season	60	19	5
Summer	58	15	11
Winter	70	20	10
Annual	70	19	11

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Table 4-2

NPCC STUDY AREA
MONTHLY, ENERGY, PEAK DEMAND, AND LOAD FACTOR
1977

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
New England												
Peak Hour Demand-MW	14,500	13,591	12,328	11,969	12,159	12,291	14,234	13,950	13,342	11,672	13,101	14,846
Net Energy GWH	7,875	6,743	6,844	6,115	6,099	6,142	6,466	6,792	6,198	6,391	6,553	7,567
Load Factor, %	73.0	73.8	74.6	70.9	67.4	69.4	61.0	65.4	64.5	73.6	69.5	68.5
New York												
Peak Hour Demand-MW	18,765	17,429	16,544	15,748	17,449	18,049	21,214	19,743	19,479	16,110	17,686	18,921
Net Energy GWH	10,512	8,978	9,515	8,826	9,193	9,101	10,125	10,283	9,216	9,170	9,203	10,305
Load Factor, %	75.3	76.6	77.3	77.8	70.8	70.0	64.1	70.0	65.7	76.5	72.3	73.2
NPCC Region (U.S. Only)												
Peak Hour Demand-MW	33,265	31,020	28,872	27,717	29,608	30,340	35,448	33,693	32,821	27,782	30,787	33,767
Net Energy GWH	18,387	15,721	16,359	14,941	15,292	15,243	16,591	17,075	15,414	15,561	15,756	17,872
Load Factor, %	74.3	75.4	76.2	74.9	69.4	69.8	62.9	68.1	65.2	75.3	71.1	71.1

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Table 4-3

ANNUAL ENERGY, PEAK DEMAND, AND LOAD FACTOR
NPCC STUDY AREA - 1977

Representative Utilities	Annual Energy GWH	Peak Demand MW	Month of Peak Demand	Load Factor %
New England				
- Boston Edison Company	10,089	2,013	July	57.2
- Connecticut Light & Power Co.	10,433	1,965	December	60.6
- Hartford Electric Light Co.	5,822	1,157	July	57.4
- Public Service Co. of New Hampshire	5,428	1,125	December	55.1
- United Illuminating Co.	4,899	944	July	59.2
New York				
- Niagara Mohawk Power Corporation	31,321	5,284	December	67.7
- Power Authority of the State of New York	14,130	2,386	December	67.7
- Long Island Lighting Co.	13,551	3,101	July	49.9
- New York State Electric & Gas Corporation	11,309	2,062	January	62.6
- Rochester Gas and Electric Corporation	5,370	987	July	62.0

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Table 4-4

NPCC STUDY AREA
SYSTEM LOAD VARIATIONS 1/
1977

Representative Utilities	First Week of April		First Week of August		First Week of December		Annual			
	Peak Demand % of Annual	Weekly Load Factor %	Peak Demand % of Annual	Weekly Load Factor %	Peak Demand % of Annual	Weekly Load Factor %	Peak Demand MW	Date	Net Energy GWh	Load Factor %
New England Subregion										
New England Power Pool	80.5	75.3	87.5	73.7	92.2	76.1	14,822	Dec. 12	79,734	61.4
Boston Edison Company	75.7	73.5	94.6	65.8	83.7	75.6	2,013	July 21	10,088	57.2
Green Mountain Power Corporation	74.5	75.9	67.8	72.2	85.6	79.3	248	Dec. 12	1,204	55.4
Public Service Company of New Hampshire	74.8	76.7	73.7	72.6	87.2	77.3	1,125	Dec. 12	5,428	55.1
United Illuminating Company	79.8	69.4	92.2	71.9	85.7	75.4	944	July 21	4,899	59.2
Bangor Hydroelectric Company	85.8	78.1	87.7	79.2	100.0	76.4	204	Dec. 6	1,235	71.1
Citizen's Utilities	62.7	72.3	60.1	68.4	71.2	72.6	39	Jan. 18	214	63.2
City of Norwich	75.3	70.1	88.1	71.2	87.7	72.5	45	July 21	222	66.3
Connecticut Light & Power Company	79.8	73.5	87.6	73.1	93.6	73.7	1,965	Dec. 12	10,433	60.6
Fitchburg Gas & Electric Light Company	75.4	70.1	94.2	69.7	91.3	74.9	72	Aug. 30	378	60.2
Hartford Electric Light Company	72.6	72.4	90.4	80.6	86.4	74.5	1,157	July 21	5,822	57.4
Holyoke Gas & Electric Department	69.7	75.6	90.1	69.6	85.8	73.9	42	July 21	202	55.0
Holyoke Water Power Company	83.7	72.8	95.8	70.8	82.5	77.6	91	Dec. 12	454	57.1
Hudson Light & Power Department	78.2	66.9	80.2	65.3	86.6	71.9	24	Dec. 12	114	53.5
Maine Public Service Company	89.4	72.0	76.4	67.4	99.7	71.2	95	Dec. 14	504	60.6
Peabody Municipal Light Department	66.1	70.1	87.3	62.5	76.4	71.6	60	Sep. 12	267	50.3
Taunton Municipal Light Department	80.3	71.7	89.4	67.7	90.9	75.4	66	Dec. 12	334	57.7
Western Mass. Electric Company	81.6	74.7	89.9	70.4	100.0	74.4	697	Dec. 12	3,681	61.4

1/ Computations based on data from schedules 14 and 15 of 1977 FERC - Form 12.

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Table 4-4 (Cont'd)

NPCC STUDY AREA
SYSTEM LOAD VARIATIONS[1/]
1977

Representative Utilities	First Week of April		First Week of August		First Week of December		Annual			
	Peak Demand % of Annual	Weekly Load Factor %	Peak Demand % of Annual	Weekly Load Factor %	Peak Demand % of Annual	Weekly Load Factor %	Peak Demand MW	Date	Net Energy GWh	Load Factor %
New York Subregion							21,214	-	114,400	61.6
Central Hudson Gas & Electric Corporation	75.0	72.8	92.4	74.7	93.8	77.3	631	July 21	3,423	61.9
Long Island Lighting Company	62.0	72.4	90.8	73.7	74.9	70.7	3,101	July 21	13,551	49.9
New York State Electric & Gas Corporation	80.3	77.7	90.8	76.9	93.5	78.5	2,062	Jan. 18	11,309	62.6
Niagara Mohawk Power Corporation	83.3	80.2	84.5	78.1	95.5	79.3	5,284	Dec. 12	31,321	67.7
Orange and Rockland Utilities, Inc.	60.1	75.2	88.4	70.8	70.4	75.8	706	July 21	3,115	50.6
Power Authority of the State of New York	82.7	31.2	92.7	81.8	99.6	77.7	2,386	Dec. 22	14,130	67.6
Rochester Gas & Electric Company	79.7	74.5	91.7	71.2	92.1	70.1	987	July 20	5,370	62.0
Village of Freeport	71.3	63.7	93.2	73.6	76.9	69.2	39	July 21	169	80.0
Jamestown Municipal Electric System	87.7	61.9	95.4	63.5	95.4	67.2	65	Aug. 29	303	53.3

CHAPTER 5

METHODOLOGY

This section of the report will discuss the methodology employed by study participants to undertake the National Hydroelectric Power Study (NHS) for the modified Northeast Power Coordinating Council (NPCC) area. This modified NPCC area includes the six New England States and the State of New York. It does not include the NPCC portion in Canada. Study participants include the following Corps divisional offices: New England Division (NED); North Atlantic Division (NAD); North Central Division (NCD); and Ohio River Division (ORD). The methodology used eminates from the NHS Plan of Study dated January 1979 prepared by the Corps Institute for Water Resources (IWR) -- managers of the NHS.

The identification of potential viable hydroelectric sites in the NPCC study area was accomplished in four stages which served to eliminate from further study, sites which did not meet progressively more stringent screening criteria. Stage 1 consisted of the initial data collection and an initial screening based upon rough capacity estimates. Stage 2 consisted of a second screening based on refined estimates of capacity. Stage 3 consisted of two parts - an economic data collection and screening; and an environmental data collection and screening. Stage 4 consisted of the formulation of a hydropower implementation plan for the NPCC region utilizing the potential viable hydroelectric sites identified by Stages 1, 2 and 3. It included numerical rankings of these sites for both Near Term (projects on line by the year 1990) and Long Term (projects on line beyond the year 1990) dam sites. Detailed descriptions of the four stages follows, however it must be understood that this document did not attempt to document the NHS computer program. That is the subject of Volumes XII and XIIIof the NHS report.

5.1 STAGE 1: BASIC DATA COLLECTION AND INITIAL SCREENING

The purpose of Stage 1 was to develop a comprehensive nationwide inventory of dams possessing the physical potential for hydroelectric power generation. This was done for both developed and undeveloped dams. Corps Divisions and Districts were responsible for the collection and submission of data into the Corps Hydrologic Engineering Centers (HEC) computer data base. This data was input into their computer in a format designated as Form 1 from which data could be extracted for screening purposes later in the study. Form 1 consisted of physical data, such as project name, stream, town, county, gross head, drainage area, latitude, longitude, USGS gage number, etc. Once a dam inventory had been established on paper, each Corps office set a practical standard to delete obviously inferior sites from being entered into the computer data bank for further consideration during the remainder of the NHS. The power potential in terms of capacity for each site was the original basis for this initial screening. As described below, other factors were also considered to aid in deleting sites with poor hydroelectric potential.

At NAD, NCD, and ORD, the preliminary inventory data base for sites outside the NERBC study area was developed from the Corps National Inventory of Dams, Federal Energy Regulatory Commission hydro listing, and Corps, other Federal, State, county and local sources. NAD, NCD nad ORD began to screen this preliminary inventory using the Corps Institute for Water Resources (IWR) method of using the computer to calculate power potential in kilowatts (KW) of all sites identified by the basic data collection. The HEC computer calculated power potential using the formula:

Kilowatts (KW) = (Gross Head in feet) x (Storage in Acre-feet) x (0.36).

In addition, these offices augmented the results of the computer analysis by eliminating sites which did not possess usfficient storage (100 acre-ft) or gross head (5 feet), or drainage area (50 square miles) to generate 50 KW for existing dams or 1000 KW for undeveloped sites. In addition, any site which was known to have high stramflow variability was also eliminated. Sites surviving this screening process were then input into the HEC computer in the format of Form 1.

5.2 STAGE 2: SECOND SCREENING

The purpose of Stage 2 was to select those existing and undeveloped dam sites from Stage 1 that met basic capacity and rough economic standards. This stage also served as a useful check for errors that may have occurred in Stage 1. The sites that met the standards established for this activity would be carried forward for further, more

stringent screening in Stage 3. Stage 2 also served to split the computer data base into two sections -- an active file and an inactive file. The active file consisted of all sites passing Stage 2 screening. The inactive file included the remaining sites.

This stage required that ORD, NAD, and NCD supplement where necessary data collected for all sites passing Stage 1. Once this was accomplished, Corps offices were required to notify HEC that their data was checked for consistency and accuracy. HEC would then analyze all dam sites from Stage 1 using a refined version of their computer program. Divisions and districts then split their computer inventory into an active and inactive file based upon review of these Stage 2 screening results.

Methodology adopted by the HEC computer program was as follows: Estimates of capacity and energy were made using a hydrologic model developed by the staff at HEC. A description of this model can be found in Volumes XII and XIII of the NHS. This model used as its basis United States Geological Survey (USGS) gaging stations. Flow duration curves were developed for each USGS flow gage. An on-site flow duration curve was then developed for each damsite analyzed by a simple drainage area ratio between the area contributing to the selected USGS gage and the area of the dam under consideration. In most cases, the applicable USGS gage was selected by the computer. Corps offices had the option of overriding this selection if they so desired. The selection process works as follows. Each USGS flow gage within a 200 mile square grid of the site was scored on four separate categories: length of record, quality of record, distance from dam site under consideration, and ratio of gaged area to dam-controlled area. The combined scores of each gage in this 200 mile square grid area was ranked and the gage with the most favorable score was chosen automatically by the computer. Standard flow duration techniques were then applied to compute the capacity in kilowatts and energy in megawatt hours available. If so desired, Corps offices had the option of requesting a sequential routing analysis. Sequential routing can be extremely valuable when analyzing storage projects, as opposed to run-of-river projects.

Criteria used by NED to screen the Stage 2 sites required a dam to satisfy two constraints. First, a dam site must possess a potential hydroelectric capacity of at least 50 KW for existing dams and 100 KW (1 MW) for undeveloped dam sites. Secondly, that dam site must meet an economic constraint. That is, a dam site must have an economic benefit/cost ratio

of at least 1.0. This economic test considered costs for the powerhouse facilities only-powerhouse and switchyard. These costs were developed based on Corps construction costs nationwide (October 1978). Cost curves used by the HEC computer model were extracted from the "Hydropower Cost Estimating Manual," May 1979, developed by the Corps North Pacific Division - Portland District. Annual costing assumed a 50-year project life and Federal interest rate. Power benefits were measured by FERC generalized power valves (January 1978 prices for alternative cost of Federal financing interest rate of 6-7/8 percent). These cost curves and generalized benefits were computerized into HEC computer model to determine a benefit-to-cost ratio (BCR) for power benefits over powerhouse facilities costs only.

At NED, no input for Stage 2 was submitted to the HEC computer model. NED had already completed NHS Stage 2 utilizing a computer model it had developed as part of its study while under contract to NERBC. NED input to the NHS would not come until Stage 3.

5.3 STAGE 3: ECONOMIC AND ENVIRONMENTAL DATA COLLECTIONS AND SCREENINGS

Stage 3 consisted of two parts. The first part was an economic data collection followed by a computer screening. The second part was an environmental data collection also followed by a computer screening. Sites passing Stage 2 screening were subjected to Stage 3 procedures. These would be sites placed in the active file as explained in Section 5.2.

The primary purpose of Stage 3 was to accumulate the Form 2 data that was necessary to accomplish both the economic and environmental screenings as well as to refine estimates of capacity and energy. Form 2 is simply an extension of Form 1. A sample copy of a Form 2 appears as Figure 5-1. It lists additional physical, economical and environmental data items for both existing and undeveloped dam sites than was required for the Form 1. Economic data was collected first and subjected to a computer evaluation. Environmental data was then collected and subjected to a computer evaluation. Sites passing both these screenings then went on to Stage 4.

5.3.1 Stage 3: Economic Data Collection and Screening

The purpose of this first part of Stage 3 was to collect physical and economic data on all active sites remaining in the computer data base from Stage 2 and screen those sites based on a more detailed and refined economic analysis. Corps offices were required to compile data in accordance with Form 2 instructions and input this data into the HEC computer model. The computer would then be instructed to analyze all dam sites reaching Stage 3. The results of this computer analysis would then be reviewed by Corps offices and the less desirable projects removed from the active file. The remaining sites would be subjected to the second part of Stage 3.

At NED, data was furnished into the HEC computer at this stage in the format of Form 2. Sites input included the best sites from the hydropower study NED performed for NERBC. Selection criteria for these so called "cream of the crop" sites were as follows:

Existing Dams

1. Gross head must be greater than or equal to 5 feet.

2. Potential capacity at 40% plant factor must be greater than or equal to 50 kilowatts.

3. Energy cost at an interest rate of 6-7/8%, 100 year project life must be less than or equal to 90.0 MILLS/KWH.

Existing Hydropower Dams

1. Existing capacity must be greater than or equal to 500 kilowatts.

Undeveloped Sites

1. Gross head must be greater than or equal to 5 feet.

2. Potential capacity at either 15%, 40%, or 70% plant factor must be greater than or equal to 1000 kilowatts (1 megawatt).

3. Benefit cost Ratio -- based on dam cost only -- must be greater than or equal to 0.8.

The following assumptions were made by NED for the analysis done by the HEC computer model:

1. Undeveloped sites were assumed to be storage reservoir projects by NED, not run of river type projects.

2. Undeveloped sites were treated as developed dam sites by NED. It was assumed that other project purposes besides hydropower would pay for the construction cost of the dam. In other words, no single purpose hydro projects were considered. Only multiple-purpose projects were considered.

3. Existing and undeveloped dam sites were analyzed by NED using a flow duration type analysis. No dams were analyzed using the sequential routing analysis.

4. Existing Corps of Engineers dams were analyzed by NED assuming the pre-empting of flood control. This resulted in a substantially less gross head available for hydroelectric generation.

5. Project size selection by the HEC computer for the NED inventory was optimized based upon energy cost. In other words, during the computers size selection routine, it would consider about ten different size hydroelectric plants. It would select the final size based upon which of the ten alternatives had the lowest energy cost associated with it.

6. Plant factor cutoff limits were established by NED as follows. All projects were required to attain a plant factor greater than or equal to 15 percent and less than or equal to 70 percent. A site was reanalyzed if the plant factor fell outside of this range.

7. A 10 percent rule was applied to all existing hydropower dams by NED. This rule applied to those existing hydropower dams where the HEC computer analysis indicated that the dam could produce only 10 percent or less additional power than its present capacity. Existing hydropower dams which fell into this category were assigned an incremental capacity, energy and energy cost equal to zero. Consequently, they were not ranked in Stage 4. They were retained in the active file.

8. It was assumed that all existing dams were considered structurally sound. However, in the event that future detailed studies are made on a site by site basis, dam integrity analysis would be a required item of all feasibility studies.

At NAD, and NCD assumptions 1, 3, 5, and 8 were applied. Screening criteria used by NED, NAD and NCD, for the actual economic screening for this first part of Stage 3 was simple and to the point. If an existing dam or undeveloped site could not produce energy at an energy cost of less than or equal to 90.0 MILLS/KWH, the site was removed from the active file. All existing hydropower dams were retained in the active file, however those existing hydropower dams which did not fall into the 10 percent rule category as explained above were classified as potential viable hydroelectric sites.

5.3.2 Stage 3: Environmental Data Collection and Screening

The purpose of this second part of Stage 3 was to collect environmental, social and institutional data on all active sites remaining in the computer data base from the first part of Stage 3 and screen those sites based on environmental, social and institutional aspects. Corps offices were required to compile data in accordance with Form 2 instructions and input this data into the HEC computer model. It was then the responsibility of Corps offices to review all dam sites and remove from the active

file those dam sites with adverse impacts from either an environmental, social or institutional aspect. The remaining sites would then proceed to Stage 4.

At NED, NAD and NCD, very limited environmental, social and institutional data was collected due to economic constraints of the study. The basis for this second part of Stage 3 was the Wild and Scenic Rivers System Study as portrayed on that study's latest mapping - October 1978. That study identified three different types of Wild and Scenic designations as follows:

1. Designated a Wild and Scenic River.

2. Congressionally mandated study rivers.

3. Rivers that meet criteria for further study and/or potential inclusion into the Wild and Scenic Rivers System.

Existing dams and undeveloped sites falling into category 1 as described above were deleted from the active file. Those existing dams and undeveloped sites which fell into categories two or three were retained in the active file. A table of these category two and three sites appears in Chapter 7 as Table 7-3. It is entitled "Sites Located On Potential Wild And Scenic Rivers." The table was included because the reader should be aware that these rivers might some day be classified as Wild and Scenic Rivers and thus the development of hydropower would be prohibited.

5.4 STAGE 4: REGIONAL SITE IDENTIFICATION

The purpose of Stage 4 was to formulate a final list of potential viable hydroelectric sites remaining from Stages 1, 2 and 3 screenings in the NPCC study area and to perform a series of consolidated rankings of them. These consolidated rankings serve as the hydropower implementation plan for the NPCC study area.

At NED, NAD and NCD, consolidated rankings among the three divisions was accomplished and results can be seen in Tables 8-9 and 8-10. The results of three rankings are displayed in the above mentioned tables. Rankings were done for two different classifications of dams. Near Term sites were ranked with numbers beginning at 1000. Long Term sites were ranked with numbers beginning at 2000. Near Term sites were defined as existing hydropower dams with incremental energy costs less than or equal to 90 MILLS/KWH and existing dams where the incremental energy cost was also less than 90 MILLS/KWH. It was felt these dams could be put on line in the near term -- by the year 1990. Long Term sites were defined as those existing hydropower dams where the incremental energy cost was

greater than 90 MILLS/KWH and all undeveloped sites. It was felt these dams could be put on line sometime beyond the year 1990. Rankings were based upon incremental energy costs. The three rankings performed were as follows:

1. Economic Ranking - This was a ranking performed on sites passing Stage 3 Economic Screening.

2. Environmental Ranking - This was a ranking performed on sites passing Stage 3 Environmental (Non-Economic) Screening.

3. Composite Ranking - This was a composite ranking of the Economic and Environmental rankings.

These three rankings were performed both for Near Term and Long Term damsites.

FIGURE 5-1
Sample Computer Data Form 2

FORM2 - MEMNED5001 - LOCATION AND IDENTIFICATION DATE: 09/17/80

1	R2/M U	PROJECT IDENTIFICATION NUMBER	(A10)	MEMNED5001
2	01 R2/U	PROJECT NAME =20=	(4A10)	OTIS
3	R1 R2/U M	ACTIVE IN INVENTORY =430=	(F2.0)	2.
4	R1 R2/M U	STATUS OF FILE =0=	(A3)	ORC
5	R1 R2/M	LAST UPDATE (YR/MO/DY) =1=	(A10)	80/08/05
6	R1 R2/M	LAST UPDATE (TIME OF DAY) =2=	(A10)	07.22.53
7	R2/M	LAST COMPUTATION DATE (YR/MO/DY)	(A10)	80/07/23
8	R1 R2/M U	INVENTORY OF DAMS IDENTIFICATION NUMBER =10=	(A7)	ME00236
9	R1 R2/M	USGS TAPE NUMBER (USED FOR INFLOW SELECTION) =5=	(F12.0)	=23.
10	R1 R2/M	SELECTED GAGE DRAINAGE AREA (SQ MI) =6=	(F12.1)	=2067.0
11	R1 R2/U M	WEIGHTED NET POWER HEAD (FT) =7=	(F12.1)	24.0
12	C1 C2/M	SITE-TO-GAGE DRAINAGE AREA RATIO =8=	(F12.2)	=1.20
13	C1 C2/M	POWER STORAGE-TO-AVERAGE ANNUAL INFLOW RATIO =9=	(F12.2)	0.
14	C2/M	AVERAGE ANNUAL DISCHARGE PER AREA (CFS/SQ.MI.)	(F12.2)	=1.82
15		CAPACITY SELECTION CRITERION (WORD 1 OF 5)	(A10)	(=100.*(A(
16		CAPACITY SELECTION CRITERION (WORD 2 OF 5)	(A10)	3=.4)))
17		CAPACITY SELECTION CRITERION (WORD 3 OF 5)	(A10)	
18		CAPACITY SELECTION CRITERION (WORD 4 OF 5)	(A10)	
19		CAPACITY SELECTION CRITERION (WORD 5 OF 5)	(A10)	
20	R2/U	DISTRICT COMPOSITE RANKING	(A10)	1223
21	R2/U	DIVISION COMPOSITE RANKING	(A10)	1223
22	R2/U	STATE COMPOSITE RANKING	(A10)	1070
23		RESERVED FOR FUTURE USE	(A10)	
24	R2/U M	FLOW-DURATION ESTIMATE DESIRED =280=	(A3)	YES
25	R2/U M	SEQUENTIAL ANALYSIS DESIRED	(A3)	NO
26	R2/U	ERC ECONOMIC RANKING	(A10)	1372
27	R2/U	ERC NON-ECONOMIC RANKING	(A10)	1372
28	R2/U	ERC COMPOSITE RANKING	(A10)	1372
29		RESERVED FOR FUTURE USE	(A10)	
30		RESERVED FOR FUTURE USE	(A10)	
31	01 R2/U	NAME OF STREAM =30=	(3A10)	ANDROSCOGGIN RIVER
32	R1 R2/U	DIVISION =40=	(A3)	NED
33	R1 R2/U	DISTRICT =50=	(A3)	NED
34	01 R2/U	REGION =60=	(F12.1)	1.0
35	01 R2/U	BASIN =70=	(F12.1)	3.0
36	R1 R2/U	LATITUDE =80=	(A10)	44 30.0
37	R1 R2/U	LONGITUDE =90=	(A10)	70 13.1
38	R1 R2/U	PRIMARY STATE =100=	(A2)	ME
39	01 R2/U	PRIMARY COUNTY =110=	(F12.1)	7.0
40	01 R2/U	PRIMARY COUNTY NAME =610=	(2A10)	FRANKLIN
41	01 R2/U	NEAREST DOWNSTREAM TOWN =600=	(3A10)	JAY
42	01 R2/U	PRIMARY CONGRESSIONAL DISTRICT =120=	(F3.0)	2.
43	01 D2/U	SECONDARY STATE =130=	(A2)	
44	01 D2/U	SECONDARY COUNTY =140=	(F4.0)	0.
45	01 D2/U	SECONDARY COUNTY NAME	(2A10)	
46	01 D2/U	SECONDARY CONGRESSIONAL DISTRICT =150=	(F3.0)	0.
47	01 R2/M	FERC REGIONAL OFFICE =160=	(A2)	NY
48	R1 R2/U	FERC POWER SUPPLY AREA =170=	(F3.0)	1.
49	01 D2/U	FERC RIVER BASIN CODE =180=	(F7.0)	0.
50	01 D2/U	FERC SITE CODE =190=	(F5.0)	0.
51	01 D2/U	FERC STATE CODE =200=	(F5.0)	23.
52	01 R2/M	ELECTRIC RELIABILITY COUNCIL =310=	(A5)	NPCL
53		ELECTRIC RELIABILITY COUNCIL SUB-REGION	(A10)	NE
54		RESERVED FOR FUTURE USE	(A10)	
55		RESERVED FOR FUTURE USE	(A10)	
56		RESERVED FOR FUTURE USE	(A10)	

FORM2 - MEMNED5001 - PHYSICAL CHARACTERISTICS DATE: 09/17/80

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   57 R2/U       TYPE OF DAM . . . . . . . . . . . . . . . . . . . . . . . . .   (A2)   OT
   58 D2/U       COMMENT (ON "OTHER") . . . . . . . . . . . . . . . . . . . . . (4A10)  UNKNOWN
   59 R2/U       YEAR COMPLETED . . . . . . . . . . . . . . . . . . . . . . . . (F5.0)     0.
   60 01 D2/U    OWNER -390- . . . . . . . . . . . . . . . . . . . . . . . . .  (3A10)  UNKNOWN
   61 01 R2/U    OWNER CODE -400- . . . . . . . . . . . . . . . . . . . . . .   (A1)   U
   62 01 R2/U    PURPOSES -410- . . . . . . . . . . . . . . . . . . . . . . .   (A7)   O
   63 01 R2/U    STATUS -420- . . . . . . . . . . . . . . . . . . . . . . . .   (A2)   OP
   64 01 R2/U    EXISTING FEATURES FOR POWER -380- . . . . . . . . . . . . . .  (5A10)

   65 01 R2/U    DEPENDENT OR INDEPENDENT -440- . . . . . . . . . . . . . . . .  (A1)
   66 01 D2/U    COMMENT -450- . . . . . . . . . . . . . . . . . . . . . . . .  (5A10)

67- 76           SYSTEM SEQUENCE
      D2/U       PROJ  67          69          71          73          75         (A7)
      D2/U       ABOVE 68          70          72          74          76         (A7)
   77            RESERVED FOR FUTURE USE . . . . . . . . . . . . . . . . . . .  (A10)
   78            RESERVED FOR FUTURE USE . . . . . . . . . . . . . . . . . . .  (A10)
   79            RESERVED FOR FUTURE USE . . . . . . . . . . . . . . . . . . .  (A10)
   80            ELEVATION OF TOP OF DAM (FT,MSL) . . . . . . . . . . . . . .  (F12.1)          0.
   81 R2/U       HEIGHT OF DAM (FT) . . . . . . . . . . . . . . . . . . . . .  (F12.1)          24.0
   82 E2/U       CREST LENGTH (FT) . . . . . . . . . . . . . . . . . . . . . . (F12.1)          0.
   83 E2/U       SITE CROSS-SECTIONAL CLASSIFICATION . . . . . . . . . . . . .   (A1)   B
   84 E2/U       SITE ARRANGEMENT CLASSIFICATION . . . . . . . . . . . . . . .   (A1)   M
   85 E2/U       WATERWAY LENGTH (FT) . . . . . . . . . . . . . . . . . . . .  (F12.0)           0.
   86 E2/U       WATERWAY DESIGN FLOW (CFS) . . . . . . . . . . . . . . . . .  (F12.0)           0.
   87 S2/U       HEIGHT TO TOP OF FLOOD CONTROL POOL (FT) . . . . . . . . . .  (F12.1)          0.
   88 S2/U       CUMULATIVE STORAGE AT TOP OF FLOOD CONTROL POOL (AC FT) . .  (F12.0)           0.
   89 S2/U       SURFACE AREA AT TOP OF FLOOD CONTROL POOL (AC) . . . . . . .  (F12.0)           0.
   90 S2/U       MAXIMUM OUTFLOW CAPACITY AT TOP OF FLOOD CONTROL POOL (CFS)  (F12.0)           0.
   91 S2/U       HEIGHT TO TOP OF CONSERVATION POOL (FT) . . . . . . . . . . . (F12.1)          0.
   92 S2/U       CUMULATIVE STORAGE AT TOP OF CONSERVATION POOL (AC FT) . . .  (F12.0)           0.
   93 S2/U       SURFACE AREA AT TOP OF CONSERVATION POOL (AC) . . . . . . . . (F12.0)           0.
   94 S2/U       MAXIMUM OUTFLOW CAPACITY AT TOP OF CONSERVATION POOL (CFS) .  (F12.0)           0.
   95 S2/U       HEIGHT TO BOTTOM OF POWER POOL (FT) . . . . . . . . . . . . . (F12.1)          0.
   96 S2/U       CUMULATIVE STORAGE AT BOTTOM OF POWER POOL (AC FT) . . . . .  (F12.0)           0.
   97 S2/U       SURFACE AREA AT BOTTOM OF POWER POOL (AC) . . . . . . . . . . (F12.0)           0.
   98 S2/U       MAXIMUM OUTFLOW CAPACITY AT BOTTOM OF POWER POOL (CFS) . . .  (F12.0)           0.
   99 S2/U       HEIGHT TO TOP OF INACTIVE POOL (FT) . . . . . . . . . . . . . (F12.1)          0.
  100 S2/U       CUMULATIVE STORAGE AT TOP OF INACTIVE POOL (AC FT) . . . . .  (F12.0)           0.
  101 S2/U       SURFACE AREA AT TOP OF INACTIVE POOL (AC) . . . . . . . . . . (F12.0)           0.
  102 S2/U       MAXIMUM OUTFLOW CAPACITY AT TOP OF INACTIVE POOL (CFS) . . .  (F12.0)           0.
  103 F1 R2/U    HYDRAULIC HEIGHT OF DAM (FT) -210- . . . . . . . . . . . . .  (F12.II          0.
  104 01 R2/U    MAXIMUM STORAGE (AC FT) -220- . . . . . . . . . . . . . . . . (F12.0)           0.
  105 F1 F2/U    NORMAL NET POWER HEAD (FT) -250- . . . . . . . . . . . . . .  (F12.1)          24.0
106-113          DISCHARGE (CFS) VS HEIGHT (FT) RELATIONSHIP FOR TAILWATER
      F2 S2/U    DISCHARGE(106)      0.(108)      0.(110)      0.(112)      0.   (F8.0)
      F2 S2/U    HEIGHT   (107)      0. (109)     0. (111)     0. (113)     0.   (F8.1)
114-125          MONTHLY PLANT FACTORS
      S2/U M     JAN= 0.  FEB= 0.  MAR= 0.  APR= 0.  MAY= 0.  JUN= 0.        (F6.2)
      S2/U M     JUL= 0.  AUG= 0.  SEP= 0.  OCT= 0.  NOV= 0.  DEC= 0.        (F6.2)

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  126 R1 R2/U    DRAINAGE AREA (SQ MI) -260- . . . . . . . . . . . . . . . . . (F12.1)        2490.0
  127 R1 R2/U M  REPRESENTATIVE GAGE SELECTED -290- . . . . . . . . . . . . .  (F12.0)     -1054500.
  128 01 R2/U M  AVERAGE ANNUAL INFLOW (CFS) -300- . . . . . . . . . . . . . . (F12.1)       -4527.6
129-140          NET LAKE EVAPORATION (INCHES)
      S2/U M     JAN(129)  0.   FEB(130)  0.   MAR(131)  0.   APR(132)  0.        (F6.2)
      S2/U M     MAY(133)  0.   JUN(134)  0.   JUL(135)  0.   AUG(136)  0.        (F6.2)
      S2/U M     SEP(137)  0.   OCT(138)\ 0.   NOV(139)  0.   DEC(140)  0.        (F6.2)
  141 R2/U       AVERAGE ANNUAL UPSTREAM DIVERSION (CFS) . . . . . . . . . . .  (F12.1)           0.
  142 R2/U       PURPOSE OF DIVERSION . . . . . . . . . . . . . . . . . . . .   (A10)
  143            DOWNSTREAM CHANNEL CAPACITY (CFS) . . . . . . . . . . . . . .  (F12.1)           0.
  144            RESERVED FOR FUTURE USE . . . . . . . . . . . . . . . . . . .  (A10)
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145		RESERVED FOR FUTURE USE	(A10)	

FORM2 - MEMNED5001 - OTHER PERTINENT DATA DATE: 09/17/80

146	D2/U	PRIOR STUDIES - COMMENT	(5A10)	
147	R1 R2/U	KNOWN POTENTIAL CONSTRAINTS -460-	(A3)	
148	D1 D2/U	COMMENT -470-	(5A10)	
149	D1 D2/U	GENERAL COMMENTS -480-	(5A10)	
150	D1 D2/U	GENERAL COMMENTS -490-	(5A10)	
151	D1 D2/U	GENERAL COMMENTS -500-	(5A10)	
152	D2/M	KNOWN SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS	(A3)	
153	D2/U	COMMENT	(5A10)	
154	D2/U	KNOWN PROJECT PROPONENTS	(A3)	
155	D2/U	COMMENT	(5A10)	
156	D2/U	KNOWN PROJECT OPPONENTS	(A3)	
157	D2/U	COMMENT	(5A10)	
158	D2/U	KNOWN OR PROJECTED COMPETITIVE USES OF WATER	(A3)	
159	D2/U	COMMENT	(5A10)	
160	D2/U	MAP REFERENCE	(5A10)	
161	D2/U	ADDITIONAL VALUE 1 -620-	(F12.1)	0.
162	D2/U	ADDITIONAL VALUE 2 -630-	(F12.1)	0.
163	D2/U	ADDITIONAL VALUE 3 -640-	(F12.1)	0.
164	D2/U	ADDITIONAL VALUE 4 -650-	(F12.1)	0.
165	D2/U	ADDITIONAL VALUE 5 -660-	(F12.1)	0.

FORM2 - MEMNED5001 - FINANCIAL DATA SUMMARY DATE: 09/17/80

166-197				FIELD ESTIMATE	MACHINE ESTIMATE	
	E2/U--E2/M	TOTAL FIRST COST ($1000)	(166)	0.(182)	26969.	(F9.0)
	E2/U--E2/M	CONTINGENCIES	(167)	0.(183)	6742373.	(F9.0)
	E2/U--E2/M	ENGINEERING AND OVERHEAD	(168)	0.(184)	5649309.	(F9.0)
	E2/U--E2/M	INTEREST DURING CONSTRUCTION	(169)	0.(185)	2706081.	(F9.0)
	E2/U--E2/M	TOTAL INVESTMENT ($1000)	(170)	0.(186)	42067.	(F9.0)
	E2/U--E2/M	ANNUAL INTEREST AND AMORTIZATION	(171)	0.(187)	2895875.	(F9.0)
	E2/U--E2/M	ANNUAL O, M, AND R	(172)	0.(188)	546963.	(F9.0)
	E2/U--E2/M	ANNUAL PUMPING COST	(173)	0.(189)	0.	(F9.0)
	E2/U--E2/M	TOTAL ANNUAL COST	(174)	0.(190)	3442838.	(F9.0)
	E2/U--E2/M	INTEREST RATE (PERCENT X 1000)	(175)	0.(191)	6875.	(F9.0)
	E2/U--E2/M	PRICE LEVEL (YEAR)	(176)	0.(192)	0.	(F9.0)
	E2/U--E2/M	ANNUAL POWER BENEFITS ($1000)	(177)	0.(193)	2767.	(F9.0)
	E2/U--E2/M	OTHER ANNUAL BENEFITS ($1000)	(178)	0.(194)	0.	(F9.0)
	E2/U--E2/M	TOTAL ANNUAL BENEFITS ($1000)	(179)	0.(195)	2767.	(F9.0)
	E2/U--E2/M	BENEFIT-TO-COST RATIO X 100	(180)	0.(196)	80.	(F9.0)
	E2/U--E2/M	AVERAGE COST OF ENERGY ($/MWH)	(181)	0.(197)	50.	(F9.0)
198		RESERVED FOR FUTURE USE				(F12.0) 0.
199		RESERVED FOR FUTURE USE				(F12.0) 0.
200		RESERVED FOR FUTURE USE				(F12.0) 0.
201		RESERVED FOR FUTURE USE				(F12.0) 0.
202		RESERVED FOR FUTURE USE				(F12.0) 0.
203		RESERVED FOR FUTURE USE				(F12.0) 0.
204		RESERVED FOR FUTURE USE				(F12.0) 0.
205		RESERVED FOR FUTURE USE				(F12.0) 0.

206	E2/M	LANDS AND DAMAGES ($1000)	(F12.2)	0.
207	E2/U	RELOCATIONS ($1000) -- SPECIAL COST ITEM	(F12.2)	0.
208	E2/M	RESERVOIRS ($1000)	(F12.2)	0.
209	E2/M	DAM ($1000)	(F12.2)	0.
210	E2/U	AUXILIARY DAM ($1000) -- SPECIAL COST ITEM	(F12.2)	.
211	E2/M	POWER INTAKE ($1000)	(F12.2)	0.
212	E2/M	POWERPLANT (INCLUDING SWITCHYARD) ($1000)	(F12.2)	0.
213	E2/U	ROADS, RAILROADS, AND BRIDGES ($1000) -- SPECIAL COST ITEM	(F12.2)	0.
214	E2/U	RECREATION FACILITIES ($1000)	(F12.2)	0.
215	E2/U	TRANSMISSION FACILITIES ($1000) -- SPECIAL COST ITEM	(F12.2)	0.
216	E2/U	BUILDINGS, GROUNDS, AND UTILITIES ($1000)	(F12.2)	0.
217	E2/U	PERMANENT OPERATING EQUIPMENT ($1000)	(F12.2)	0.
218	R2/U M	POTENTIAL CAPACITY (KW)	(F12.2)	0.
219	R2/U M	ANNUAL ENERGY PRODUCTION (MWH)	(F12.2)	0.
220	R2/U M	ANNUAL PUMPING ENERGY (MWH)	(F12.2)	0.
221	R2/U M	DEPENDABLE CAPACITY VALUE ($/KW-YR)	(F12.2)	0.
222	R2/U M	INTERRUPTIBLE CAPACITY VALUE ($/KW-YR)	(F12.2)	0.
223	R2/U M	ENERGY PRODUCTION VALUE ($/MWH)	(F12.2)	0.
224	R2/U M	PUMPING ENERGY COST ($/MWH)	(F12.2)	0.
225	O2/U	COMMENT - ALTERNATIVE ASSUMED	(5A10)	
226	R2/U	COST ALLOCATION ON WHICH ABOVE COSTS ARE BASED (EX. HSCS)	(A10)	
227	R2/U M	LOCAL OR REMOTE OPERATION (TURBINE TYPE - 2ND CHARACTER)	(A10)	
228		RESERVED FOR FUTURE USE	(A10)	
229		RESERVED FOR FUTURE USE	(A10)	
230		RESERVED FOR FUTURE USE	(A10)	
231	R1 R2/U M	CONVENTIONAL CAPACITY - EXISTING (KW) -320-	(F12.2)	0.
232	R2/U M	CONVENTIONAL CAPACITY - NEW POTENTIAL (KW)	(F12.2)	0.
233	R1 R2/U M	CONVENTIONAL CAPACITY - TOTAL (KW) -360-	(F12.2)	0.
234	R2/U	REVERSIBLE CAPACITY - EXISTING (KW)	(F12.2)	0.
235	R2/U M	REVERSIBLE CAPACITY - NEW POTENTIAL (KW)	(F12.2)	0.
236	R2/M	REVERSIBLE CAPACITY - TOTAL (KW)	(F12.2)	0.
237	R2/M	TOTAL PLANT CAPACITY - EXISTING (KW)	(F12.2)	0.
238	R2/U M	NUMBER OF UNITS FOR ITEM 237	(F12.2)	0.
239	R1 R2/U M	AVERAGE ANNUAL ENERGY - EXISTING (MWH) -330-	(F12.2)	0.
240	R2/U M	AVERAGE ANNUAL PLANT FACTOR (PERCENT)	(F12.2)	0.
241	O2/U	COMMENT	(5A10)	
242	O2/U	COMMENT	(5A10)	
243	R2/U M	TOTAL PLANT CAPACITY - NEW POTENTIAL (KW)	(F12.2)	0.
244	R2/U M	NUMBER OF UNITS FOR ITEM 243	(F12.2)	0.
245	R2/M	TOTAL PLANT CAPACITY - TOTAL (KW)	(F12.2)	0.
246	R2/U M	NUMBER OF UNITS FOR ITEM 245	(F12.2)	0.
247	R1 R2/U M	AVERAGE ANNUAL ENERGY - TOTAL (MWH) -370-	(F12.2)	0.
248	R2/U M	AVERAGE ANNUAL PLANT FACTOR	(F12.2)	0.
249	O2/U	COMMENT	(5A10)	
250	R2/U M	DEPENDABLE CAPACITY - EXISTING (KW)	(F12.2)	0.
251	R2/U M	DEPENDABLE CAPACITY - TOTAL (KW)	(F12.2)	0.
252	R2/U	PUMPING ENERGY REQUIRED - EXISTING (MWH)	(F12.2)	0.
253	R2/M	PUMPING ENERGY REQUIRED - TOTAL (MWH)	(F12.2)	0.
254	O2/U	COMMENT	(5A10)	
255		ANNUAL FIRM ENERGY - EXISTING (MWH)	(F12.2)	0.
256		ANNUAL FIRM ENERGY - TOTAL (MWH)	(F12.2)	0.
257		RESERVED FOR FUTURE USE	(A10)	
258		RESERVED FOR FUTURE USE	(A10)	
259		RESERVED FOR FUTURE USE	(A10)	
260		RESERVED FOR FUTURE USE	(A10)	

261	02/U	UPGRADING TURBINES AND GENERATORS (KW)	(F12.0)	0.
262	02/U	UPGRADING TURBINES AND GENERATORS (MWH)	(F12.0)	0.
263	02/U	REALLOCATION OF STORAGE (KW)	(F12.0)	0.
264	02/U	REALLOCATION OF STORAGE (MWH)	(F12.0)	0.
265	02/U	OPERATIONAL CHANGES (KW)	(F12.0)	0.
266	02/U	OPERATIONAL CHANGES (MWH)	(F12.0)	0.
267	02/U	ADDITIONAL GENERATING SETS (KW)	(F12.0)	0.
268	02/U	ADDITIONAL GENERATING SETS (MWH)	(F12.0)	0.
269	02/U	OTHER (KW)	(F12.0)	0.
270	02/U	OTHER (MWH)	(F12.0)	0.
271	02/U	COMMENT ON OTHER	(5A10)	
272		RESERVED FOR FUTURE USE	(A10)	
273		RESERVED FOR FUTURE USE	(A10)	
274		RESERVED FOR FUTURE USE	(A10)	
275		RESERVED FOR FUTURE USE	(A10)	

FORM2 - MEMNF05001 - POWER DATA -- MACHINE RESULTS -- DATE: 09/17/80

276	LATEST ESTIMATE OF DEPENDABLE CAPACITY FROM SEQ. ANALYSIS .	(F12.0)	0.
277	LATEST ESTIMATE OF ANNUAL FIRM ENERGY FROM SEQ. ANALYSIS . .	(F12.0)	0.
278	OPTIMUM EXCEEDENCE FROM FLOW-DURATION ANALYSIS	(F12.4)	.0100
279	OPTIMUM EXCEEDENCE FROM SEQUENTIAL ANALYSIS	(F12.4)	0.
280	ITEMS 290 THRU 319 ARE BASED UPON (SEQ) OR (FLD) ANALYSIS .	(A3)	FLD
281	LATEST ESTIMATE OF AVERAGE ANNUAL ENERGY FROM SEQ. ANALYSIS	(F12.2)	0.
282	AVERAGE ANNUAL SPILLAGE (CFS) FROM FLOW-DURATION ANALYSIS .	(F12.2)	36.13
283	AVERAGE ANNUAL AVAILABLE POWER FLOW (CFS)	(F12.2)	4491.46
284	AVERAGE ANNUAL ENERGY ADJUSTMENT FACTOR .(0.0 TO 2.0) . . .	(F12.2)	0.
285	LATEST ESTIMATE OF POWER HEAD FROM SEQ. ANALYSIS	(F12.2)	0.
286	LATEST ESTIMATE OF AVERAGE ANNUAL SPILL FROM SEQ. ANALYSIS .	(F12.2)	0.
287	AVE. ANNUAL ENERGY FOR EXISTING CAPACITY (FLOW-DURATION) . .	(F12.2)	0.
288	RESERVED FOR FUTURE USE	(F12.2)	0.
289	RESERVED FOR FUTURE USE	(F12.2)	0.
	... TOTAL POTENTIAL RESULTS ... -700 THRU 709-		
290	CAPACITY (KW)	(F12.2)	39589.47
291	AVERAGE ANNUAL ENERGY (MWH)	(F12.2)	66820.12
292	ANNUAL PLANT FACTOR	(F12.2)	.20
293	DEPENDABLE CAPACITY BENEFIT ($/KW-YR)	(F12.2)	30.50
294	AVERAGE ANNUAL ENERGY BENEFIT ($/MWH-YR)	(F12.2)	30.58
295	ANNUAL CAPACITY BENEFIT ($/YR)	(F12.2)	662697.66
296	ANNUAL ENERGY BENEFIT ($/YR)	(F12.2)	2104377.75
297	TOTAL ANNUAL BENEFIT ($/YR)	(F12.2)	2767075.41
298	TOTAL ANNUAL COST ($/YR)	(F12.2)	3442837.92
299	B/C RATIO	(F12.2)	.80
	... EXISTING CAPACITY RESULTS ... -320 THRU 330-		
300	CAPACITY (KW)	(F12.2)	0.
301	AVERAGE ANNUAL ENERGY (MWH)	(F12.2)	0.
302	ANNUAL PLANT FACTOR	(F12.2)	0.
303	DEPENDABLE CAPACITY BENEFIT ($/KW-YR)	(F12.2)	0.
304	AVERAGE ANNUAL ENERGY BENEFIT ($/MWH-YR)	(F12.2)	0.
305	ANNUAL CAPACITY BENEFIT ($/YR)	(F12.2)	0.
306	ANNUAL ENERGY BENEFIT ($/YR)	(F12.2)	0.
307	TOTAL ANNUAL BENEFIT ($/YR)	(F12.2)	0.
308	TOTAL ANNUAL COST ($/YR)	(F12.2)	0.
309	B/C RATIO	(F12.2)	0.
	... INCREMENTAL CAPACITY RESULTS ... -710 THRU 719-		
310	CAPACITY (KW)	(F12.2)	39589.47
311	AVERAGE ANNUAL ENERGY (MWH)	(F12.2)	66820.12
312	ANNUAL PLANT FACTOR	(F12.2)	.20
313	DEPENDABLE CAPACITY BENEFIT ($/KW-YR)	(F12.2)	30.50
314	AVERAGE ANNUAL ENERGY BENEFIT ($/MWH-YR)	(F12.2)	30.58
315	ANNUAL CAPACITY BENEFIT ($/YR)	(F12.2)	662697.66
316	ANNUAL ENERGY BENEFIT ($/YR)	(F12.2)	2104377.75
317	TOTAL ANNUAL BENEFIT ($/YR)	(F12.2)	2767075.41

318	TOTAL ANNUAL COST ($/YR)	(F12.2)	3442837.92
319	B/C RATIO	(F12.2)	.80
320-439	MACHINE RESULTS FROM FLOW-DURATION ANALYSIS		
440-505	MACHINE RESULTS FROM SEQUENTIAL FLOW ANALYSIS		
506	NUMBER OF UNITS	(F12.0)	8.
507	SIZE OF UNITS (KW)	(F12.0)	0.
508	TYPE OF UNITS	(5A10)	
509-569	MACHINE RESULTS FROM SEQUENTIAL FLOW ANALYSIS		

FORM2 - MEMNED5001 - ENVIRONMENTAL IMPACTS DATE: 09/17/80

570	NATIONAL/STATE PARK/LANDS ADVERSELY IMPACTED (AC)	(F12.2)	0.
571	NATIONAL/STATE PARK/LANDS ENHANCED (AC)	(F12.2)	0.
572	COMMENT	(5A10)	
573	NATIONAL/STATE WILD AND SCENIC RIVERS DEGRADED (MI)	(F12.2)	0.
574	NATIONAL/STATE WILD AND SCENIC RIVERS ENHANCED (MI)	(F12.2)	0.
575	COMMENT	(5A10)	
576	POTENTIAL WILD AND SCENIC RIVERS DEGRADED (MI)	(F12.2)	0.
577	POTENTIAL WILD AND SCENIC RIVERS ENHANCED (MI)	(F12.2)	0.
578	COMMENT	(5A10)	
579	RECREATION LAKES/RESERVOIRS ADVERSELY IMPACTED (AC)	(F12.2)	0.
580	RECREATION LAKES/RESERVOIRS ENHANCED (AC)	(F12.2)	0.
581	COMMENT	(5A10)	
582	WILDERNESS,PRIMITIVE AND/OR NATURAL,ADVERSELY IMPACTED (AC)	(F12.2)	0.
583	WILDERNESS,PRIMITIVE AND/OR NATURAL,ENHANCED (AC)	(F12.2)	0.
584	COMMENT	(5A10)	
585	ESTUARINE AND WETLAND AREAS ADVERSELY IMPACTED (AC)	(F12.2)	0.
586	ESTUARINE AND WETLAND AREAS ENHANCED (AC)	(F12.2)	0.
587	COMMENT	(5A10)	
588	CULTURAL RESOURCE SITES ADVERSELY IMPACTED (NUMBER)	(F12.2)	0.
589	CULTURAL RESOURCE SITES PRESERVED (NUMBER)	(F12.2)	0.
590	COMMENT	(5A10)	
591	CRITICAL/IMPORTANT WILDLIFE HABITAT ADVERSELY IMPACTED (AC)	(F12.2)	0.
592	CRITICAL/IMPORTANT WILDLIFE HABITAT ENHANCED (AC)	(F12.2)	0.
593	COMMENT	(5A10)	
594	FISHERY HABITAT ADVERSELY IMPACTED (AC)	(F12.2)	0.
595	FISHERY HABITAT ENHANCED (AC)	(F12.2)	0.
596	COMMENT	(5A10)	
597	FISHERY HABITAT ADVERSELY IMPACTED (STREAM MILE)	(F12.2)	0.
598	FISHERY HABITAT ENHANCED (STREAM MILE)	(F12.2)	0.
599	COMMENT	(5A10)	
600	ENDANGERED SPECIES ADVERSELY IMPACTED (NUMBER)	(F12.2)	0.
601	ENDANGERED SPECIES ENHANCED (NUMBER)	(F12.2)	0.
602	COMMENT	(5A10)	
603	WATER QUALITY ADVERSELY IMPACTED	(A3)	
604	WATER QUALITY ENHANCED	(A3)	
605	COMMENT	(5A10)	
606	OTHER ADVERSE IMPACTS	(A3)	
607	OTHER ENHANCEMENTS	(A3)	
608	COMMENT	(5A10)	
609	DELETE FROM ACTIVE INVENTORY	(A3)	NO

610	COMMENT	(5A10)	
611	RESERVED FOR FUTURE USE	(A10)	
612	RESERVED FOR FUTURE USE	(A10)	
613	RESERVED FOR FUTURE USE	(A10)	
614	RESERVED FOR FUTURE USE	(A10)	
615	RESERVED FOR FUTURE USE	(A10)	
616	RESERVED FOR FUTURE USE	(A10)	
617	RESERVED FOR FUTURE USE	(A10)	
618	RESERVED FOR FUTURE USE	(A10)	
619	RESERVED FOR FUTURE USE	(A10)	

FORM2 - MEMNED5001 - SOCIAL IMPACTS DATE: 09/17/80

620	PERSONS RELOCATED (NUMBER)	(F12.2)	0.
621	TOWNS RELOCATED (NUMBER)	(F12.2)	0.
622	BUSINESSES RELOCATED (NUMBER)	(F12.2)	0.
623	HIGHWAYS AND RAILROADS RELOCATED (MI)	(F12.2)	0.
624	HIGHWAY AND RAILROAD BRIDGES RELOCATED (NUMBER)	(F12.2)	0.
625	NAVIGATION ADVERSELY IMPACTED (MI)	(F12.2)	0.
626	COMMENT	(5A10)	
627	NAVIGATION ENHANCED (MI)	(F12.2)	0.
628	COMMENT	(5A10)	
629	FARM LAND INUNDATED (AC)	(F12.2)	0.
630	COMMENT	(5A10)	
631	DELETE FROM ACTIVE INVENTORY	(A3)	NO
632	COMMENT	(5A10)	
633	RESERVED FOR FUTURE USE	(A10)	
634	RESERVED FOR FUTURE USE	(A10)	
635	RESERVED FOR FUTURE USE	(A10)	
636	RESERVED FOR FUTURE USE	(A10)	
637	RESERVED FOR FUTURE USE	(A10)	
638	RESERVED FOR FUTURE USE	(A10)	
639	RESERVED FOR FUTURE USE	(A10)	

FORM2 - MEMNED5001 - PROJECT ACCEPTABILITY DATE: 09/17/80

640	POLITICAL FACTORS SUPPORTING AUTHORIZATION	(A3)	
641	POLITICAL FACTORS OPPOSING AUTHORIZATION	(A3)	
642	COMMENT	(5A10)	
643	OTHER FEDERAL AND STATE AGENCY OPPOSITION	(A3)	
644	COMMENT	(5A10)	
645	LOCAL PUBLIC SUPPORT	(A3)	
646	LOCAL PUBLIC OPPOSITION	(A3)	
647	COMMENT	(5A10)	
648	ENVIRONMENTAL GROUP SUPPORT	(A3)	
649	ENVIRONMENTAL GROUP OPPOSITION	(A3)	
650	COMMENT	(5A10)	
651	OTHER SOCIAL GROUP SUPPORT	(A3)	
652	OTHER SOCIAL GROUP OPPOSITION	(A3)	
653	COMMENT	(5A10)	
654	UTILITY INTEREST GROUP SUPPORT	(A3)	
655	UTILITY INTEREST GROUP OPPOSITION	(A3)	
656	COMMENT	(5A10)	

657	GENERAL COMMENT	(5A10)	
658	DELETE FROM ACTIVE INVENTORY	(A3)	NO
659	COMMENT	(5A10)	
660	RESERVED FOR FUTURE USE	(A10)	
661	RESERVED FOR FUTURE USE	(A10)	
662	RESERVED FOR FUTURE USE	(A10)	
663	RESERVED FOR FUTURE USE	(A10)	
664	RESERVED FOR FUTURE USE	(A10)	
665	RESERVED FOR FUTURE USE	(A10)	
666	RESERVED FOR FUTURE USE	(A10)	
667	RESERVED FOR FUTURE USE	(A10)	
668	RESERVED FOR FUTURE USE	(A10)	
669	RESERVED FOR FUTURE USE	(A10)	

FORM2 - MEMNED5001 - MARKETABILITY DATE: 09/17/80

670	AVERAGE ANNUAL POWER REPAYMENT REQUIRED ($1000)	(F12.2)	0.
671	REPAYMENT RATE REQUIRED ($/KW-YR)	(F12.2)	0.
672	REPAYMENT RATE REQUIRED ($/MWH)	(F12.2)	0.
673	DEPENDABLE CAPACITY VALUE ($/KW-YR)	(F12.2)	-30.50
674	INTERRUPTIBLE CAPACITY VALUE ($/KW-YR)	(F12.2)	-15.25
675	FIRM ENERGY VALUE ($/MWH)	(F12.2)	0.
676	SECONDARY ENERGY VALUE ($/MWH)	(F12.2)	0.
677	GENERAL COMMENT	(5A10)	
678	GENERAL COMMENT	(A10)	
679	DELETE FROM ACTIVE INVENTORY	(A10)	NO
680	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
681	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
682	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
683	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
684	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
685	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
686	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
687	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
688	COMMENT ON DELETION FROM ACTIVE INVENTORY	(A10)	
689	SCREENING INDICATOR BASED ON ITEMS 679,658,631,609	(A10)	

COMMAND AND CONSTRAINTS END

CHAPTER 6

PUBLIC INVOLVEMENT

Throughout the data collection and report preparation process, information on potential hydropower development by private and public utilities was solicited. Study objectives and procedures were discussed with public interest groups, and local, State and Federal water resources agencies, to obtain their views of the study procedures and final results.

6.1 PUBLIC MEETING

In advance of the regional public meeting for the Northeast Power Coordinating Council (NPCC) study area on 4 September 1980, five thousand announcements were mailed throughout the seven-state region to prospective attendees. The list was derived from several sources and was representative of all public and private hydro interests. A public information brochure was issued for the meeting. The brochure contained information on the purpose of the study, the agenda of the public meeting, a listing of viable hydropower sites within each of the seven states in the NPCC study area, and a map showing the sites in general location. Two advance news releases and two post-meeting releases were circulated.

The meeting was somewhat unique in that NED had the benefit of joint sponsorship by the Federal Regional Council (New England), the U.S. Department of Energy, Region 1 Office and the Northeast Solar Energy Center. The participation of these organizations was instrumental in attracting the attention of hydro interests and others who made valuable contributions.

6.1.1 Location and Participation

The regional public meeting was held in Cambridge, Massachusetts. Two hundred and ninteen persons completed attendance cards. Approximately 200 individuals who received announcements but were unable to attend the meeting requested information. The conference and regional public meeting was a daylong program providing a forum for discussion and comment on a variety of issues regarding the development and expansion of hydropower.

6.1.2 Input

Tabulated results of the screening and evaluation of the site data were reviewed at the regional public meeting and subsequent general comments were solicited. A special response form was included in the informational packages for the convenience of the public to obtain site specific information. Public comments were accepted for inclusion in the report over the 30-day period following the meeting.

Participants in the regional public meeting, in nearly all instances, expressed a desire to keep informed on progress of the National Hydroelectric Power Study with many stating their desire to be advised of future opportunities for direct involvement. The record of the meeting contained a written summary report of the three panel discussions conducted as part of the conference program.

6.2 OTHER OFFICIAL MEETINGS RELATED TO THIS STUDY

Early public involvement focused on New England Division's participation in the New England River Basins Commission (NERBC) Hydropower Expansion Study. That study began in June 1978 as an effort to ascertain the extent the region's dependency on foreign oil could be reduced by developing hydropower in economically and environmentally acceptable ways.

As a member of the NERBC study team, NED coordination was extensive, and there were frequent opportunities for informational exchanges of various technical aspects with State, local and other Federal agencies. Representatives of each of these organizations met at regular intervals, to plan and coordinate the study activities. The first phase of the study consisted of data collection. Much of our regional data for New England has been derived from this inventory. Federal agencies involved in this coordination included: Soil Conservation Service; Region I, Department of Energy; The Environmental Protection Agency and various organizations within the Department of the Interior. Public involvement will be pursued by NERBC in the ongoing phases of the study, and NED will participate actively as a commission member.

The pattern of close working relationships with State Energy Offices established during the data collection phase in the NERBC expansion study has continued in the course of NED's efforts for the National Hydroelectric Study. We expect this close coordination to continue and hope that our region will derive important benefits in the formulation of a rational hydro policy.

6.3 PUBLIC MEETING TRANSCRIPT LOCATIONS

Transcripts for the Public Meeting are available for public inspection during business hours at the NED Technical Library located at the following address:

U.S. Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, MA 02254

This transcript is also available for public inspection during business hours at NAD, NCD and ORD Corps offices at the following addresses:

U.S. Army Engineer Division, North Atlantic
90 Church Street
New York, NY 10007

U.S. Army Engineer Division, North Central
536 S. Clark Street
Chicago, IL 60604

U.S. Army Engineer Division, Ohio River
P.O. Box 1159
Cincinatti, OH 45201

CHAPTER 7

INVENTORY

7.1 STAGE 1, 2 AND 3 SCREENING RESULTS

7.1.1 Inventory

Stage 1, 2 and 3 screening results for the Northeast Power Coordinating Council (NPCC) study area are the subject of this section of the NPCC Regional Report. As described earlier, the NPCC area for purposes of this National Hydropower Study (NHS) includes the six New England States which New England Division (NED) was responsible for, and the State of New York whose responsibility was split between North Atlantic Division (NAD) - New York District; North Central Division (NCD) - Buffalo District and Ohio River Division - Pittsburg District. New York District assumed the responsibility of including Baltimore District and Philadelphia District sites in its work for this study. Both these districts lie within NAD's jurisdictional area. Note that the Canadian portion of the NPCC area is not included. It is important at this point to review the methodology used to obtain these results. A description of the methodology can be found in Chapter 5. Results from the three screening processes are displayed in Table 7-1 and show that the total original inventory for the NPCC area consisted of 11,815 sites in New England and 1,312 sites in New York for a total of 13,127 sites. Stage 1 screening reduced this figure to 2,338 sites in New England and 1,086 sites in New York for a total of 3,424 sites. Stage 2 screening further reduced the inventory to 877 in New England and 386 sites in New York for a total 1,263 sites. Stage 3 screening reduced the inventory to a final workable number which would serve as the basis for Stage 4 Inventory manipulations and evaluation procedures. Stage 3 screening results in 542 sites being retained in New England and 205 sites in New York for a total 747 sites. These 747 sites represent the final list of damsites identified as potentially viable hydropower sites. Note that the ORD portion of New York ended up with no potentially viable hydropower sites.

7.2 STAGE 3 SCREENING RESULTS

7.2.1 Inventory

Stage 3 screening results as displayed in Table 7-1 indicate 542 sites in New England and 205 sites in New York have been identified as potentially viable hydropower sites. Table 7-2 displays project type categories which include: (1) Existing Hydropower Dams, (2) Existing Dams and (3) Undeveloped Sites. Existing Hydropower Dams are defined as existing dams where hydroelectric power is presently being generated.

In the case of New England, 177 dams fell into this category. However, as shown in Table 7-2, only 118 of these can be expanded to produce more power. The remaining 59 have been identified as not having hydropower expansion possibilities. For the purposes of this study, this means these 59 existing hydropower dams cannot generate more than 10% of their existing capacity. Therefore, New England Division has 542-59=483 potentially viable hydropower sites. The reason that all 177 existing hydropower sites were kept in the inventory was because of computer evaluations performed as part of Stage 4. The same type analysis as described above applies to New York State. New York contains 126 existing hydropower dams of which 33 cannot be expanded. The remaining 93 sites constitute the potential viable hydropower sites at existing hydropower dams.

Results indicate then that New England contained 483 potentially viable hydropower sites whereas New York contained 172 sites for a NPCC study area total of 655 sites. Although not shown directly, Table 7-2 illustrates this. For New England, the 483 sites are comprised of the 118 existing hydropower dams with expansion possibilities plus the 274 existing dams plus the 91 undeveloped sites. For New York, the 172 sites are comprised of the 93 existing hydropower dams with expansion possibilities plus the 68 existing dams plus the 11 undeveloped sites.

Existing dams are defined as existing dams, breeched or partially breeched dams where hydroelectric power is not generated. These sites have been identified as potentially, viable hydropower projects based upon Stage 1, 2 and 3 screenings. Results indicate that in New England there are 274 potentially viable existing damsites and in New York there are 68 sites for a total of 342 sites.

Undeveloped sites are defined as non-existing dam sites which have been identified as being potentially viable hydropower projects if a dam were to be built on the proposed site. Results indicate that NPCC is made up of 91 potentially viable sites in New England and 11 sites in New York. This totals up to 102 sites for the NPCC study area.

Stage 3 screening, as described in Chapter 5.3, included environmental criteria. The NPCC study area participants used the Wild and Scenic Rivers System Study dated October 1978 by the U.S. Department of Interior as their basis for this environmental screening. That study classified rivers into three different categories. They are as follows:

1. Designated a Wild and Scenic River.

2. Congressionally mandated study rivers.

3. Rivers that meet criteria for further study and/or potential inclusion into the Wild and Scenic Rivers System.

Damsites in category number one were removed from the active file during Stage 3 screening. Damsites in categories two and three were not removed, however Table 7-3 lists all sites which fall into these two categories. Fifteen sites fell into category two - 4 in Connecticut, 8 in Maine and 3 in New York. Twenty-one sites fell into category three - 10 in Maine, 9 in Vermont and 2 in New York. It is possible that the rivers these sites lie on may someday be part of the Wild and Scenic Rivers System. For that reason, they have been tabulated in Table 7-3.

7.3 STAGE 4 INVENTORY

The Stage 4 Inventory for the NPCC area consists of all sites passing the Stage 3 screening tests. Table 7-2 indicates these results, however, the Stage 4 Inventory phase of this study splits the Stage 3 results into two categories: (1) Near Term Sites and (2) Long Term Sites. Near Term Sites are defined as sites where new hydropower generation could be implemented prior to the year 1990. Long term sites are defined as sites where new hydropower generation could be implemented sometime beyond the year 1990. For the NPCC area, a Near Term site was considered to be (1) an existing dam where hydropower could be newly generated at an energy cost of less than or equal to 90 mills/kwh or (2) an existing hydropower dam where additional power could be generated at an energy cost of less than or equal to 90 mills/kwh. A long term site was considered to be (1) all undeveloped sites as well as (2) those existing hydropower dams where additional power could be generated at an energy cost of greater than 90 mils/kwh. Table 7-4 illustrates the size of the Stage 4 Inventory for both Near and Long Term sites.

It should be noted at this point that some of the sites in the Stage 4 Inventory were not ranked. These sites consisted of existing hydropower dams where the incremental capacity as calculated by the computer was less than ten percent of its existing capacity. In these cases, the incremental capacity was manually set equal to zero which in turn resulted in an incremental energy cost of zero. An energy cost of zero would be evaluated by the computer as an attractive project because it screens potential hydropower projects based upon energy cost. A project with an energy cost less than or equal to 90 mills/kwh would be an attractive project. Such a site, though, is in fact not a prime candidate for hydropower expansion because it is presently generating at its maximum potential. It cannot be expanded. These kinds of sites were not ranked.

Table 7-4 also shows us that in New England there are 382 damsites which could be implemented by the year 1990 (Near Term sites) and 101 damsites which could be implemented sometime after 1990 (Long Term sites) for

a total of 483 sites. The States of Maine and New Hampshire contain the largest number of near term sites with 106 and 101, respectively. Maine and Vermont contain the largest number of long term damsites with 51 and 46 respectively. Rhode Island contains the least number of near term sites with 19 while Connecticut and Rhode Island both contain zero long term sites. Note that Connecticut, Massachusetts and Rhode Island have no potential undeveloped sites. In New York, there are 157 damsites which could be implemented by the year 1990 and 15 dam sites which could be implemented some time after 1990.

An analysis of these results appears in Chapter 8.

Table 7-1

STAGE 1, 2 AND 3 SCREENING RESULTS - NPCC STUDY AREA INVENTORY

	Total Inventory	Stage 1 Results	Stage 2 Results	Stage 3 Results
New England				
NED	11,815	2,338	877	542
NED Subtotal	11,815	2,338	877	542
New York				
NAD	1,000	860	200	89
NCD	299	213	173	116
ORD	13	13	13	0
New York Subtotal	1,312	1,086	386	205
NPCC (New England & New York)				
New England Subtotal	11,815	2,338	877	542
New York Subtotal	1,312	1,086	386	205
NPCC	13,127	3,424	1,263	747

Legend

NED - New England Division
NAD - North Atlantic Division
NCD - North Central Division
ORD - Ohio River Division
NPCC - Northeast Power Coordinating Council

Table 7-2

STAGE 3 SCREENING RESULTS - NPCC STUDY AREA
BREAKDOWN INVENTORY

	Existing Hydropower Dams					
	Can Be Expanded	Cannot Be Expanded	Total	Existing Dams	Undeveloped Sites	State Totals
New England						
Connecticut	7	6	13	36	0	49
Maine	45	24	69	64	48	181
Massachusetts	15	13	28	33	0	61
New Hampshire	15	7	22	86	2	110
Rhode Island	0	1	1	19	0	20
Vermont	36	8	44	36	41	121
New England Subtotal	118	59	177	274	91	542
New York						
NAD	37	6	43	46	0	89
NCD	56	27	83	22	11	116
New York Subtotal	93	33	126	68	11	205
NPCC (New England & New York)						
New England Subtotal	118	59	177	274	91	542
New York Subtotal	93	33	126	68	11	205
NPCC Totals	211	92	303	342	102	747

Table 7-3

NPCC STUDY AREA
DAMSITES LOCATED ON POTENTIAL WILD AND SCENIC RIVERS

SITES WHICH LIE ON CONGRESSIONALLY MANDATED RIVERS.

Site ID	Project Name	River
Connecticut		
CTYNED 0501	CT No Name	Housatonic River
CTMNED 0502	Spooner Dam	Housatonic River
CTGNED 8007	Bulls Bridge	Housatonic River
CTGNED 8008	Great Falls (Fall Village)	Housatonic River
Maine		
MEANED 5316	Grand Lake	East Branch Penobscot River
MECNED 5395	Seboomook	West Branch Penobscot River
ME6NED 7011	Pond Pitch	East Branch Penobscot River
ME6NED 7012	Whetstone	East Branch Penobscot River
ME6NED 7013	Bear Rapids	East Branch Penobscot River
ME6NED 7014	Meadow Brook	East Branch Penobscot River
ME6NED 7015	Ledge Falls	East Branch Penobscot River
ME6NED 7016	Foxhole Rips	West Branch Penobscot River
New York		
NY6NCB 0099	Fish Creek	East Branch Fish Creek
NY6NCB 0100	No. 2	East Branch Fish Creek
NY6NCB 0101	Fish Creek	East Branch Fish Creek

SITES WHICH LIE ON RIVERS THAT MEET CRITERIA FOR FURTHER STUDY AND/OR POTENTIAL INCLUSION INTO THE WILD AND SCENIC RIVERS SYSTEM.

Site ID	Project Name	River
Maine		
ME6NED 7001	Bailey Brook Deadwater	Baker Brook
ME6NED 7003	Big Black Reservoir	Big Black River
ME6NED 7006	Masardis	Aroostook River
ME6NED 7008	Holmes Falls	Machias River
ME6NED 7022	Bancroft	Mattawamkeag River
ME6NED 7028	Grand Falls	Passadumkeag River
ME6NED 7029	Saponac	Passadumkeag River
ME6NED 7039	Holeb Falls	Moose River
ME6NED 7065	Hiram Site No. 2	Saco River
ME6NED 7079	Dickey/Lincoln - Dickey	St. John River

Table 7-3 (Cont'd)

NPCC STUDY AREA
DAMSITES LOCATED ON POTENTIAL WILD AND SCENIC RIVERS

Site ID	Project Name	River
Vermont		
VT6NED 7003	Stone Dam	Nulhegan River
VT6NED 7019	Huntington Falls	Otter Creek
VT6NED 7026	Rochester	White River
VT6NED 7027	West Branch White River	White River
VT6NED 7028	Gaysville	White River
VT6NED 7037	Riverside	Ottaquechee River
VT6NED 7038	West Woodstock	Ottaquechee River
VT6NED 7044	West Londonderry	West River
VT6NED 7045	Rawsonville	Winhall River
New York		
NY7NCB 0001	Portage	Genesee River
NY5NCB 0165	Moosehead	Raquette River

Table 7-4

STAGE 4 INVENTORY - NPCC STUDY AREA
NEAR TERM - LONG TERM BREAKDOWN OF INVENTORY

		NEAR TERM		
		Existing Dams	Existing Hydropower Dams (Energy Cost <90 mils/kwh)	Total Near Term
New England				
Connecticut		36	7	43
Maine		64	42	106
Massachusetts		33	13	46
New Hampshire		86	15	101
Rhode Island		19	0	19
Vermont		36	31	67
New England Total		274	108	382
New York				
New York	NAD	46	34	80
	NCD	22	55	77
New York Total		68	89	157
NPCC (New England & New York)				
Total		342	197	539

Table 7-4 (Cont'd)

STAGE 4 INVENTORY - NPCC STUDY AREA
NEAR TERM - LONG TERM BREAKDOWN OF INVENTORY

		LONG TERM		
		Undeveloped Sites	Existing Hydropower Dams (Energy Cost >90 mils/kwh)	Total Long Term
New England				
Connecticut		0	0	0
Maine		48	3	51
Massachusetts		0	2	2
New Hampshire		2	0	2
Rhode Island		0	0	0
Vermont		41	5	46
New England Total		91	10	101
New York				
New York	NAD	0	3	3
	NCD	11	1	12
New York Total		11	4	15
NPCC (New England & New York)				
Total		102	14	116

Table 7-4 (Cont'd)

STAGE 4 INVENTORY - NPCC STUDY AREA
NEAR TERM - LONG TERM BREAKDOWN OF INVENTORY

		Stage 4 Working Inventory	Sites not Ranked Existing Hydropower Dams (Incremental Capacity = Ø)
New England			
Connecticut		43	6
Maine		157	24
Massachusetts		48	13
New Hampshire		103	7
Rhode Island		19	1
Vermont		113	8
New England Total		483	59
New York			
New York	NAD	83	6
	NCD	89	27
New York Total		172	33
NPCC (New England & New York)			
Total		655	92

CHAPTER 8

EVALUATION

This chapter provides the reader with an analysis of the 655 potential viable hydroelectric damsites identified by the NHS for the NPCC study area. The analysis consists of five tables. It demonstrates how much of a contribution these potential viable hydroelectric damsites could provide. This potential is then compared to existing hydroelectric generation and reveals some interesting figures. From the analysis, it appears as if the NPCC study area could nearly double its' present day hydroelectric generation if all these identified sites were put on line.

Chapter 8 also includes computer results and site location maps.

8.1 TOTAL INCREMENTAL DEVELOPMENT

Incremental capacity and energy computer estimates are displayed in Table 8-1. As shown, New England possesses a total incremental capacity of 2,827,520 KW and average annual energy of 7,581,712 MWH. New York could produce another 1,998,119 KW and 9,121,492 MWH for a NPCC study area total of 4,825,639 KW and 16,703,204 MWH. Be advised that incremental capacity and energy estimates are composed of new hydropower potential at Existing Dams and Undeveloped Sites as well as potential hydropower expansion at Existing Hydropower Dams -- that is the additional or incremental capacity or energy, that could be added, to the present capability of a particular existing hydropower dam. For example, the total capacity at such a site would equal the sum of the existing capacity plus the incremental capacity. The same applies for energy estimates. The Existing Hydropower Sites tabulated for New England consist of only the 118 sites shown in Table 7-2 that can be expanded to generate more hydroelectric power than they are now generating. All 274 Existing Dams were tabulated as were the 91 undeveloped sites. A total of 483 sites were tabulated. In New York, tabulations for Table 8-1 included the 93 existing hydropower dams with expansion possibilities plus 68 existing dams plus 11 undeveloped dams. A total of 172 sites were tabulated.

Table 8-1 clearly shows that in New England, undeveloped sites are the largest source of potential hydroelectric development as they represent 62% of New England's total incremental capacity and 53% of total incremental energy. Existing dams are the second largest source. They represent 22% of New England's total incremental capacity and 27% of total incremental energy. Last are the existing hydropower dams with expansion possibilities. Their additional output amounts to 16% of total incremental capacity and 20% of total incremental energy.

In New York existing dams represent the largest source of potential hydroelectric development as they account for 38% of New York's total incremental capacity and 25% of total incremental energy. Undeveloped dam

sites are the second largest source. They represent 32% of New York's total incremental capacity and 48% of total incremental energy. Expansion of existing hydropower dams make the smallest contribution to potential hydroelectric development. They account for 30% of New York's total incremental capacity and 27% of total incremental energy.

Table 8-2 displays total existing generating capacities and energies for all 177 existing hydropower dams in New England and all 125 existing hydropower dams in the NPCC portion of New York. In New England, the total existing generating capacity of sites currently producing hydropower is 3,034,343 KW, which corresponds to a total average annual energy of 7,212,718 MWH. The total existing capacity of existing hydropower sites in the NPCC portion of New York is 3,687,120 KW and the total average annual energy amounts to 21,227,845 MWH. NPCC study area totals add up to 6,721,463 KW and 28,440,563 MWH.

Table 8-3 compares total existing capacities and energies as displayed in Table 8-2 to total incremental capacities and energies displayed in Table 8-1. The results are very encouraging. In effect, the results as tabulated in Table 8-3 indicate that if all potential hydroelectric development identified by this study is developed today New England could increase its total existing hydroelectric capacity by 93% and its total existing hydroelectric average annual generation by 105%. New York could increase the same by 54% and 43%, respectively. The entire NPCC study area region would realize an increase in hydroelectric capacity of 72% and an increase in hydroelectric energy generation of 59%. These figures represent substantial increases.

8.2 NEAR TERM AND LONG TERM INCREMENTAL DEVELOPMENT

Table 8-4 compares Near Term Incremental Capacity and Energy estimates to Long Term Incremental Capacity and Energy estimates and then combines the two. It serves to show that Long Term sites account for the majority of potential hydroelectric sites in New England. They represent 63% of the total incremental capacity, available in New England and 53% of the total incremental energy available. Near Term sites in New England account for only 37% of the total incremental capacity available in New England and 47% of the total incremental energy. In New York, the same does not hold true. Long Term sites account for only 36% of the total incremental capacity available in New York and 48% of the total incremental energy available. Near Term sites in New York account for the majority of potential hydroelectric sites in that State. They represent 64% of the total incremental capacity available in New York and 52% of the total incremental energy available.

Table 8-5 compares existing hydroelectric generation in the NPCC study area to the total potential hydroelectric generation that could be on line if near term sites were developed, if long term sites were developed and if both near and long term sites were developed. This table demonstrates that if only near term sites were developed in New England, the region would experience a 34% increase in the hydroelectric generation of capacity and a 50% increase in energy. If only long term sites were developed, capacity increases would be 59% while energy increases would be 55%. If both near and long term sites were developed, New England could boost its hydropower capacity by 93% and energy by 105%. In New York, if only near term sites were developed, the state would experience a 35% increase in capacity and a 22% increase in energy. If only long term sites were developed, capacity increases would amount to 19% while energy would increase by 20%. If both near and long term sites were developed within the state of New York, New York could boost its hydropower capacity by 54% and energy by 43%. For the entire NPCC area, if only near term sites were developed, the NPCC study area region could increase its hydroelectric capacity generation by 35% and its energy generation by 29%. If only long term sites were developed, capacity increases of 37% and energy increases of 30% could be realized. Overall, if all viable sites - both near and long term - were developed within the NPCC study area region, the region could expect a capacity increase of 72% and an energy increase of 59%.

8.3 COMPUTER RESULTS

Tables 8-7, 8-8, 8-9 and 8-10 are all computer generated printouts designed to furnish selected pertinent data in an easy to ready format. Bear in mind that the NHS computer contains much more information than is shown in these tables and is capable of displaying this information in similar tables. A glossary of terms for column headings on the four tables appears in Table 8-6.

Tables 8-7 and 8-8 both display data for the 747 damsites identified as passing Stage 3 screening. This is the entire computer active file. Table 8-7 is a computer listing separated by state. Within each of the seven states located in the NPCC study area, damsites are listed in order of increasing energy cost. The table contains basic site specific information. This computer listing was distributed at the 4 September

1980 NHS Public Meeting held in Cambridge, Massachusetts. Numerous corrections have been made where warranted for the state of New York. Table 8-8 is a computer listing separated by project type. Each project type lists dams of that particular type by state. These dams are listed in order of increasing energy cost. The three project types shown in Table 8-8 are Existing Dams, Existing Hydropower Dams and Undeveloped Sites.

Tables 8-9 and 8-10 both display data for 655 damsites identified as passing Stage 4 screening. Note that Tables 8-7 and 8-8 display the entire active file while Tables 8-9 and 8-10 only display the potential viable hydropower sites from the active file. Table 8-9 is a computer listing separated by state. Within each state the dams are listed by county, they are further listed in alphabetical order by project name within a county. This table contains basic site specific information. Table 8-10 is a computer listing similar to Table 8-9 except that more information is displayed in this table.

8.4 SITE LOCATION MAPS

Figures 8-1 through 8-7 are site location maps for each of the seven individual states contained in the NPCC study area for the NHS study. The maps serve to locate each of the 747 sites identified as passing Stage 3 screening. These sites comprise the active file. Different symbols are used to distinguish between the three project types referred to in this report. They are as follows: a triangle represents existing hydropower dams -- that is dam sites where hydroelectric power is now being generated; a square indicates existing dams -- that is existing or breeched dams where hydropower is not now generating, but where it could be developed economically; a circle indicates undeveloped sites where a dam could be built and hydroelectric power could be generated economically. Each symbol is labeled by the last four digits of its associated NHS dam site identifier number. This dam site identifier number is the basis for obtaining information on a particular dam site. A breakdown of this number is shown in Table 8-6.

Two additional maps are located in the inside back cover pocket. One shows the National Electric Reliability Council regions of the United States. The other is a site location map of the NPCC Region. As in figures 8-1 through 8-7, each site symbol is labeled with the last four digits of the associated NHS site identification number.

Table 8-1

STAGE 3 SCREENING RESULTS - NPCC STUDY AREA
INCREMENTAL CAPACITY AND ENERGY ESTIMATE

	Incremental Capacity (KW)	Incremental Energy (MWH)
New England		
Connecticut		
Existing Dams	51,825	254,711
Existing Hydropower Dams	7,799	6,747
Undeveloped Sites	0	0
SUBTOTAL	59,624	261,458
Maine		
Existing Dams	286,772	754,691
Existing Hydropower Dams	129,952	639,499
Undeveloped Sites	1,642,566	3,688,290
SUBTOTAL	2,059,390	5,082,480
Massachusetts		
Existing Dams	92,296	338,068
Existing Hydropower Dams	19,439	222,087
Undeveloped Sites	0	0
SUBTOTAL	111,735	560,155
New Hampshire		
Existing Dams	114,802	398,620
Existing Hydropower Dams	203,422	236,738
Undeveloped Sites	20,277	30,735
SUBTOTAL	338,501	666,093
Rhode Island		
Existing Dams	11,784	64,159
Existing Hydropower Dams	0	0
Undeveloped Sites	0	0
SUBTOTAL	11,784	64,159
Vermont		
Existing Dams	58,130	201,625
Existing Hydropower Dams	89,424	463,379
Undeveloped Sites	99,032	282,363
SUBTOTAL	246,586	947,367

Table 8-1 (Cont'd)
STAGE 3 SCREENING RESULTS - NPCC STUDY AREA
INCREMENTAL CAPACITY AND ENERGY ESTIMATE

	Incremental Capacity (KW)	Incremental Energy (MWH)
New England Subtotal		
Existing Dams	615,609	2,011,874
Existing Hydropower Dams	450,036	1,568,450
Undeveloped Sites	1,761,875	4,001,388
TOTAL	2,827,520	7,581,712
New York		
NAD		
Existing Dams	507,411	1,757,436
Existing Hydropower Dams	532,918	924,757
Undeveloped Sites	0	0
SUBTOTAL	1,040,329	2,682,193
NCD		
Existing Dams	248,547	524,526
Existing Hydropower Dams	76,736	1,580,260
Undeveloped Sites	632,507	4,334,513
SUBTOTAL	957,790	6,439,299
New York Subtotal		
Existing Dams	755,958	2,281,962
Existing Hydropower Dams	609,654	2,505,017
Undeveloped Sites	632,507	4,334,513
SUBTOTAL	1,998,119	9,121,492
NPCC (New England & New York)		
NPCC		
Existing Dams	1,371,567	4,293,836
Existing Hydropower Dams	1,059,690	4,073,467
Undeveloped Sites	2,394,382	8,335,901
SUBTOTAL	4,825,639	16,703,204

Table 8-2

STAGE 3 SCREENING RESULTS - NPCC STUDY AREA
EXISTING HYDROPOWER DAMS - TOTAL EXISTING GENERATING
CAPACITIES AND ENERGIES

	Total Existing Capacity (KW)	Total Existing Energy (MWH)
New England		
Connecticut	125,420	364,095
Maine	539,543	2,741,819
Massachusetts	1,753,636	2,181,366
New Hampshire	382,074	1,072,824
Rhode Island	1,500	4,000
Vermont	232,170	848,614
New England Total	3,034,343	7,212,718
New York		
NAD	364,370	1,733,951
NCD	3,322,750	19,493,894
New York Total	3,687,120	21,227,845
NPCC		
NPCC Regional Total	6,721,463	28,440,563

Table 8-3

STAGE 3 SCREENING RESULTS - NPCC STUDY AREA
COMPARISON OF TOTAL EXISTING HYDROELECTRIC GENERATION - TO
TOTAL POTENTIAL HYDROELECTRIC GENERATION

	Total Capacity (KW)	Total Energy (MWH)
New England		
Total Existing Hydroelectric Generation	3,034,343	7,212,718
Total Incremental Hydroelectric Generation	2,827,520	7,581,712
Total Potential Hydroelectric Generation	5,861,863	14,794,430
Percent Increase	93%	105%
New York		
Total Existing Hydroelectric Generation	3,687,120	21,227,845
Total Incremental Hydroelectric Generation	1,998,119	9,121,492
Total Potential Hydroelectric Generation	5,685,239	30,349,337
Percent Increase	54%	43%
NPCC (New England & New York)		
Total Existing Hydroelectric Generation	6,721,463	28,440,563
Total Incremental Hydroelectric Generation	4,825,639	16,703,204
Total Potential Hydroelectric Generation	11,547,102	45,143,767
Percent Increase	72%	59%

Table 8-4

STAGE 4 INVENTORY - NPCC STUDY AREA
NEAR TERM & LONG TERM INCREMENTAL CAPACITY AND ENERGY ESTIMATES

		Incremental Capacity (KW)	Incremental Energy (MWH)
Near Term			
New England		1,044,292	3,579,213
	NAD	959,293	2,646,692
New York	NCD	325,283	2,104,786
	Subtotal	1,284,576	4,751,478
NPCC (New England & New York)		2,328,868	8,330,691
Long Term			
New England		1,783,228	4,002,499
	NAD	81,036	35,501
New York	NCD	632,507	4,334,513
	Subtotal	713,543	4,370,014
NPCC (New England & New York)		2,496,771	8,372,513
Near Term & Long Term			
New England		2,827,520	7,581,712
	NAD	1,040,329	2,682,193
New York	NCD	957,790	6,439,299
	Subtotal	1,998,119	9,121,492
NPCC (New England & New York)		4,825,639	16,703,204

Table 8-5

STAGE 4 INVENTORY - NPCC STUDY AREA
COMPARISON OF EXISTING HYDROELECTRIC GENERATION TO NEAR TERM AND LONG TERM INCREMENTAL HYDROELECTRIC GENERATION

	Capacity (KW)	Energy (MWH)
Near Term Only		
New England		
Existing Hydroelectric Generation	3,034,343	7,212,718
Near Term Incremental Hydroelectric Generation	1,044,292	3,579,213
Total Near Term Potential Hydroelectric Generation	4,078,635	10,791,931
Percent Increase	34%	50%
New York		
Existing Hydroelectric Generation	3,687,120	21,227,845
Near Term Incremental Hydroelectric Generation	1,284,576	4,751,478
Total Near Term Potential Hydroelectric Generation	4,971,696	25,979,323
Percent Increase	35%	22%
NPCC		
Existing Hydroelectric Generation	6,721,463	28,440,563
Near Term Incremental Hydroelectric Generation	2,328,868	8,330,691
Total Near Term Potential Hydroelectric Generation	9,050,331	36,771,254
Percent Increase	35%	29%
Long Term Only		
New England		
Existing Hydroelectric Generation	3,034,343	7,212,718
Long Term Incremental Hydroelectric Generation	1,783,228	4,002,499
Total Long Term Potential Hydroelectric Generation	4,817,571	11,215,217
Percent Increase	59%	56%

Table 8-5 (Cont'd)

STAGE 4 INVENTORY - NPCC STUDY AREA
COMPARISON OF EXISTING HYDROELECTRIC GENERATION TO NEAR TERM AND LONG TERM INCREMENTAL HYDROELECTRIC GENERATION

	Capacity (KW)	Energy (MWH)
New York		
Existing Hydroelectric Generation	3,687,120	21,227,845
Long Term Incremental Hydroelectric Generation	713,543	4,370,014
Total Long Term Potential Hydroelectric Generation	4,400,663	25,597,859
Percent Increase	19%	20%
NPCC		
Existing Hydroelectric Generation	6,721,463	28,440,563
Long Term Incremental Hydroelectric Generation	2,496,771	8,372,513
Total Long Term Potential Hydroelectric Generation	9,218,234	36,813,076
Percent Increase	37%	30%
Near Term & Long Term		
NPCC		
Existing Hydroelectric Generation	6,721,463	28,440,563
Near and Long Term Incremental Hydroelectric Generation	4,825,639	16,703,204
Total Near and Long Term Potential Hydroelectric Generation	11,547,102	45,143,767
Percent Increase	72%	59%

Table 8-6

NPCC STUDY AREA
GLOSSARY OF TERMS FOR COMPUTER GENERATED TABLES

SITE ID: NHS dam site identifier
- First two alphabetic characters represent abbreviated State symbol
- Next alphabetic character represents project type:

Project Type

	Type of Operation					
Project Type	Run of River	Diversion	Reservoir	Reservoir with Diversion	Irrigation Canal	Pumped Storage
Existing	A	B	C	D	E	F
Existing with Power	G	H	I	J	K	L
Existing with Retired Power Plant	M	N	O	P	Q	R
Breached	S	T	U	V	W	X
Breached with Retired Power Plant	Y	Z	Ø	1	2	3
Undeveloped	4	5	6	7	8	9

- Next three alphabetic characters represent Corps of Engineers office symbol where site was analyzed.

  NED - New England Division
  NAB - North Atlantic Division - Baltimore District
  NAN - North Atlantic Division - New York District
  NAP - North Atlantic Division - Philadelphia District
  NCB - North Central Division - Buffalo District

- Next four numeric characters indicate ID number unique to the state it lies within.

PROJECT NAME: Name of dam site.

COMMUNITY: Name of town or city where dam is principally located.

STREAM: Name of watercourse where dam is located.

GROSS HEAD (FT) or PWR. HD: Height (in feet) used to calculate hydropower potential.

DRAINAGE AREA (SQ. MI.): Surface area (in square miles) controlled by dam.

INCREMENTAL CAPACITY (KW) or INC. CAP: Computer estimate of installed capacity in kilowatts (KW) that could be generated by an existing dam or undeveloped site. Computer estimate of incremental or additional capacity that could be added to the present existing generating installed capacity of an existing hydropower dam.

INCREMENTAL ENERGY (MWH) or INC. ENERGY: Computer estimate of energy in megawatt hours (MWH) that could be produced by an existing dam or undeveloped site. Computer estimate of incremental or additional energy that could be added to the present existing generation of an existing hydropower dam. The computer may indicate a negative value for incremental energy for existing hydropower dams. This simply means that, even though capacity can be added to the existing generating capacity, the operation of the plant would have to be changed in terms of plant factor which would result in less energy production. Thus the negative value for incremental energy.

ENERGY COST (MILLS/KWH) or ENERGY COST ($/MWH): Computer estimate of cost to produce energy at an existing dam or undeveloped site. Computer estimate of incremental or additional cost to produce additional energy at an existing hydropower dam.

PRIMARY COUNTY: Name of county where dam is principally located.

RANKING NUMBER - ERC REGION: Ranking number assigned by Corps offices to each site passing Stage 4 screening criteria. The 655 sites in the NPCC Electric Reliability Council (ERC) area were ranked based upon their incremental energy cost. Ranking was performed for the consolidated NPCC study area. This table does not show New England and New York ranked separately. Sites were ranked based upon whether a particular site was Near Term or Long Term. Near term sites were ranked beginning at number 1000. This first number was the Near Term site in the NPCC study area with the lowest energy cost. Long Term sites were ranked beginning at number 2000.

ECON: This was a ranking performed on sites passing Stage 3 - Economic Streening.

NON-ECON: This was a ranking performed on sites passing Stage 3 - Environmental (Non-Economic) Screening.

COMP: This was a composite list of the ECON and NON-ECON screenings.

ACTV. INV.: Status of dam site in computer active file.

2 = Currently active

OWNER: Name of owner of dam.

LATITUDE: Angular distance north or south from the earth's equator measured in degrees and minutes.

LONGITUDE: Angular distance due east or west from the meridian that runs between the north and south poles and passes through Greenwich, England measured in degrees and minutes.

PROJ. PURP.: Indication of project purpose as follows:

H = Hydroelectric
C = Flood Control
N = Navigation
S = Water Supply
R = Recreation
D = Debris Control
P = Farm Pond
I = Irrigation

STATUS: Indication of project status as follows:

IS = Identified Site
SP = Study Proposed
SA = Authorized for Study
FP = Feasibility Study in Progress
SI = Study Inactive
DM = General Design Memorandum in Progress
UC = Under Construction
OP = Project in Operation

DAM HT.: Physical height of dam in feet.

MX. STOR.: Maximum storage of reservoir formed by dam in acre-feet.

EXIST. CAP.: Reported installed capacity in kilowatts (KW) at an existing hydropower dam.

TOT. CAP.: Computer estimate of total installed capacity available at a dam site. For existing dams and undeveloped sites, the total installed capacity equals the incremental capacity. For existing hydropower dams, the total installed capacity equals the sum of the existing installed capacity plus the incremental capacity which could be added.

EXIST. ENRG.: Reported energy production in megawatt hours (MWH) at an existing hydropower dam.

TOT. ENERGY: Computer estimate of total energy available at a dam site. For existing dams and undeveloped sites, the total energy equals the incremental energy. For existing hydropower dams, the total energy equals the sum of the existing energy plus the incremental energy which could be added.

ANUL. COST: Total ahours (MWH) at an existing hydropower dam.

Table 8-7

NPCC STUDY AREA

COMPUTER LISTING OF ACTIVE FILE-BY STATE

CONNECTICUT

TABLE 8-7
NPCC Study Area
Computer Listing of Active File-By State

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
CTGNED8007	BULLS BRID	KENT	HOUSATONIC	15. 0	781.0	0	0	0
CTLNED8005	CANDLEWOOD	NEW MILFOR	CANDLEWOOD	200. 0	40.5	0	0	0
CTGNED8003	CT ND NAME	WINDHAM	SHETUCKET	26. 0	420.0	0	0	0
CTGNED8009	CT NONAME	LISBON, PR	QUINEBAUG	25. 0	744.0	0	0	0
CTINED8006	SHEPAUG DA	SOUTHBURY,	LAKE LILLI	139. 0	1392.0	0	0	0
CTINED8001	STEVENSON	MONROE,OXF	LAKE ZOAR	72. 0	1541.0	0	0	0
CTGNED8013	CONE POND	ANSONIA	NAUGATUCK	30. 0	300.0	233	2981	6.9093
CTGNED8008	GREAT FALL	CANAAN, SA	HOUSATONIC	30. 0	632.0	2858	-18675	7.4516
CTGNED8004	TAFTVILLE	NORWICH, L	SHETUCKET	26. 0	511.0	788	7012	8.6843
CTONE00500	LAKE HOUSA	DERBY, SHE	LAKE HOUSA	35. 0	1574.0	5743	34386	11.864
CTGNED8012	ENFIELD DA	ENFIELD	CONN. RIVE	10. 0	9661.0	753	8556	13.887
CTGNED8011	OCCUM DAM	SPRAGUE	SHETUCKET	12. 0	465.0	270	1545	24.754
CTMNED0137	KINNEYTOWN	SEYMOUR	NAUGATUCKR	30. 0	300.0	1275	6969	27.440
CTCNED0128	RIMMON PON	SEYMOUR	NAUGATCKRV	30. 0	300.0	1275	6969	27.440
CTCNED0081	BARKHAMSTE	NEW HARTFO	E BR FAR R	135. 0	52.5	750	4025	29.561
CTCNED9064	HOGBACK DA	HARTLAND	WBFARMIGTN	104. 0	127.0	4353	14171	30. 59
CTMNED0502	SPOONER DA	KENT	HOUSATONIC	17. 0	781.0	1425	8654	30.634
CTCNED0071	COLEBRK RV	COLEBROOK	W B FARM R	60. 0	118.0	848	5155	32.253
CTCNED0012	S P SENIOR	WESTON	E BR SAU R	110. 0	34.5	455	2450	36.789
CTMNED0078	CTNONAME F	NEW MILFOR	HOUSATONIC	12. 0	1120.0	1567	8975	37. 79
CTYNED0501	CT NONAME	NEW MILFOR	HOUSATONIC	100. 0	993.0	19981	91419	37.781
CTMNE00056	COLLINS CO	UNIONVILLE	FRMNGTN RV	20. 0	359.0	951	5105	38.744
CTMNE00051	COLINS CO	UNIONVILLE	FRMNGTN RV	20. 0	360.0	954	5111	38.751
CTCNE00079	NEPAUG RES	COLLINSVIL	NEPAUG RIV	113. 0	31.6	387	2073	39.752
CTANED0162	CTNONAME 3	JEWETT CIT	QUINEBAUG	13. 0	650.0	1158	6537	41.608
CTONED0038	COLLINS CO	UNIONVILLE	FARMINGTON	18. 0	360.0	844	4563	42.977
CTCNED8518	COMPENSATI	NEW HARTFO	EAST BRANC	45. 0	61.2	465	2365	44.107
CTMNED0198	AMER TH DM	WILLIMANTI	WILLAMANTC	20. 0	226.0	728	3492	49.668
CTMNED0199	AMER TH DM	STILL RIVE	WILLAMANTC	20. 0	225.6	727	3487	49.704
CTCNED9073	THOMASTON	THOMASTON	NAUGTUCK R	28.50	97.1	415	2254	51.195
CTCNED8526	CARGILL FA	PUTNAM	FRENCH RIV	28. 0	111.0	494	2456	51.373
CTANED0213	CTNONAME 2	QUEBEC	QUINEBAUG	14. 0	384.0	777	3994	53. 91
CTMNED0195	ROSENFLD D	PUTNAM	QUINEBAUGR	16. 0	289.0	636	3352	53.576
CTGNED8010	ROBERTSVIL	COLEBROOK	STILL RIVE	15. 0	47.7	329	-812	57. 6
CTGNED8002	RAINBOW PO	WINDSOR	FARMINGTON	60. 0	582.0	2568	6140	57.701
CTCNED9065	WILLIMANTI	MANSFIELD-	NATCHAUG R	20. 0	162.0	530	2520	58.981
CTMNED8512	BANTA PROJ	LITCHFIELD	BANTAUS RI	50. 0	40.2	344	1462	60.496
CTMNED0208	CTNONAME N	PUTNAM	QUINEBAUG	14. 0	289.0	548	2912	61.263
CTCNED0192	W. THOMPSO	THOMPSON	QUINBAUG R	17.50	173.5	450	2333	62.583
CTANED8527	AMER TH DA	WINDHAM	WILLAMANTI	15. 0	225.0	520	2550	65.165
CTANED8524	FALLS MILD	NORWICH	YANTIC	25. 0	97.5	467	1970	65.599
CTCNE08511	SHEPAUG RE	WARREN LIT	SHEPAUG RI	62. 0	38.0	382	1675	66.850
CTCNED8523	CT NONAME	THOMPSON	FRENCH RIV	21. 0	111.0	376	1854	66.966
CTMNED0206	RDGERS COR	KILLINGLY	QUINEBAUG	10. 0	377.0	529	2758	74.510
CTCNE00173	MANSFLD-HO	WINDHAM,MA	NATCHAUG R	15. 0	159.0	390	1855	77.669
CTCNED8505	EASTON RES	EASTON	MILL RIVER	120. 0	12.8	230	778	80.698
CTANED8503	HAMMONASSE	KILLINGWOR	HAMMONASSE	60. 0	20.5	251	1139	82.733
CTCNED8516	CT NONAME	ENFIELD	SCANTIC RI	25. 0	66.1	328	1314	83.319
CTMNED8529	FARMINGTON	FARMINGTON	FARMINGTON	5. 0	448.0	272	1629	89.804

MAINE

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
MEGNED8058	BANGOR HYD	EDDINGTON,	PENOBSCOT	27. 0	7740.0	0	0	0
MEGNED8009	BANGOR HYD	ELLSWORTH	UNION RIVE	60. 0	460.0	0	0	0
MEGNED8039	BANGOR HYD	HOWLAND	PISCATAQUI	21. 0	1500.0	0	0	0
MEGNED8026	BAR MILLS	BUXTON, MO	SACO RIVER	22. 0	1595.0	0	0	0
MEGNED8010	EDWARDS MA	AUGUSTA	KENNEBEC	27. 0	5550.0	0	0	0
MEGNED8034	GORHAM FIV	GORHAM, WI	PRESUMPSCO	39. 0	440.0	0	0	0
MEINED8057	GORHAM FOU	GORHAM, WI	DUNOFE PON	36. 0	443.0	0	0	0
MEGNED8054	GORHAM ONE	GORHAM, WI	PRESUMPSCO	16. 0	503.0	0	0	0
MEGNED8056	GORHAM THR	GORHAM, WI	PRESUMPSCO	24. 0	503.0	0	0	0
MEGNED8055	GORHAM TWO	GORHAM, WI	PRESUMPSCO	12. 0	503.0	0	0	0
MEGNED8045	GREAT WORK	BRADLEY	GREAT WORK	17. 0	44.0	0	0	0
MEGNED8029	HIRAM FALL	HIRAM, BAL	SACO RIVER	78. 0	832.0	0	0	0
MEGNED8004	JAY	JAY	ANDROSCOGG	14. 0	2490.0	0	0	0
MEGNED8032	KELLYLAND	BAILEYVILL	GRAND FALL	49. 0	1320.0	0	0	0
MEGNED8005	LIVERMORE	LIVERMORE	ANDROSCOGG	31. 0	2662.0	0	0	0
MEGNED8069	LOWER WILS	GREENVILLE	LOWER WILS	14. 0	40.0	0	0	0
MEGNED8038	MATTASEUNK	WOODVILLE,	PENOBSCOT	39. 0	3355.0	0	0	0
MEGNE08049	MECHANIC F	MECHANIC F	LITTLE AND	12. 0	251.0	0	0	0
MEGNED8030	MILLTOWN	CALAIS	ST. CROIX	25. 0	1790.0	0	0	0
MEGNED8051	MILSTAR MA	WATERVILLE	KENNEBEC R	36. 0	4270.0	0	0	0
MEGNED8021	OAKLAND	OAKLAND	MESSALONSK	69. 0	205.0	0	0	0
MEINE08063	OLD FALLS	KENNEBUNK	OLD FALLS	25. 0	110.0	0	0	0
MEGNED8008	THIRD FALL	RUMFORD	ANDROSCOGG	78. 0	2090.0	0	0	0
MEGNE08013	WESTON	SKOWHEGAN	KENNEBEC R	38. 0	3950.0	0	0	0
MEGNE08046	LEWISTON C	LEWISTON,	ANDROSCOGG	54. 0	2900.0	1876	44553	1.1723
MEGNED8006	OTIS	LIVERMORE	ANDROSCOGG	24. 0	2490.0	532	24028	1.2597
MEGNE08031	WOODLAND	BAILEYVILL	ST. CROIX	48. 0	1350.0	1239	31219	1.2926
MEINE08044	RIPOGENUS	T3R11-WELS	CHESUNCOOK	192. 0	1332.0	9840	112254	1.8738
MEGNE08011	SCOTT PAPE	WATERVILLE	KENNEBEC	29. 0	4270.0	503	9735	2. 995
MEGNED8059	DIAMOND IN	OLD TOWN,	PENOBSCOT	17. 0	7380.0	752	27271	2.4262
MEGNED8037	STANFORD D	HOWLAND, E	PENOBSCOT	20. 0	6680.0	558	9132	3.1607
MEGNED8014	ABENAKI \L	ANSON, MAD	KENNEBEC R	48. 0	3230.0	724	-7788	3.3363
MEGNED8019	UNION GAS	WATERVILLE	MESSALONSK	39. 0	205.0	161	2592	3.6741
MEGNE08002	DEER RIPS	LEWISTON,	ANDROSCOGG	36. 0	2900.0	1982	37636	3.6804
MEGNED8053	WESTBROOK	WESTBROOK	PRESUMPSCO	28. 0	551.0	155	2895	4.1412
MEGNE08015	ANSON \UPP	ANSON, MAD	KENNEBEC R	25. 0	3230.0	881	15697	4.5834
MEGNED8066	SACO REALI	SACO	SACO RIVER	35. 0	1700.0	625	9386	4.8205
MEINE08017	WYMAN	MOSCOW, PL	WYMAN LAKE	143. 0	2625.0	4809	21999	5.5193
MEGNE08035	BANGOR HYD	ORONO	STILLWATER	28. 0	7710.0	4711	43616	6. 497
MEGNED8022	FORT HALIF	WINSLOW	SEBASTICOO	25. 0	975.0	390	4694	6.3601
MEGNE08036	BANGOR HYD	ORONO	STILLWATER	20. 0	7710.0	3080	30112	6.4235
MEGNED8060	BANGOR HYD	MILFORD, O	PENOBSCOT	25. 0	7380.0	1702	18460	7.4826
MEINED8033	SQUAPAN LA	MASAROIS	SQUAPAN LA	30. 0	69.0	542	-4803	8. 230
MEGNE08062	MAX MILLER	LISBON	ANDROSCOGG	10. 0	3370.0	447	6816	8.3394
MEGNE08024	CATARACT S	BIDFORD, S	SACO RIVER	40. 0	1700.0	1354	12653	8.4352
MEGNE08020	RICE RIPS	OAKLAND	MESSALONSK	50. 0	205.0	529	3168	8.7443
MEGNE08001	BRUNSWICK	BRUNSWICK,	ANDROSCOGG	17. 0	3470.0	885	9289	9.2719
ME6NED7071	PIERCE PON	CARATUNK	PIERCE PON	690. 0	585.0	220000	459000	9.3403
MEGNED8061	CENTRAL MA	TOPSHAM	ANDROSCOGG	20. 0	3430.0	547	5246	9.7463
MEGNED8048	PEJEPSCOT	BRUNSWICK,	ANDROSCOGG	23. 0	3420.0	537	3576	10.843

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
MEGNE08068	DOVER-FOXC	FOXCROFT	PISCATAQUI	22. 0	352.0	636	5274	10,856
MEGNE08067	CARIBOU DA	CARIBOU	AROOSTOOK	15. 0	1931.0	347	3480	11,654
MEINE08043	NORTH TWIN	T3-INDIAN	CHESUNCOOK	37. 0	1864.0	4167	13495	11,925
MEGNE08027	WEST BUXTO	BUXTON, HO	SACO RIVER	28. 0	1572.0	2827	14520	12,293
MEGNE08028	BONNY EAGL	HOLLIS, ST	SACO RIVER	37. 0	1563.0	4856	16664	13,285
ME6NE07012	WHETSTONE	T3R7	EAST BRANC	162. 0	957.0	53733	161427	13,723
ME6NE07016	FOXHOLE RI	T4R14	WEST BRANC	33. 0	750.0	3973	21892	15, 23
MEGNE08040	ROCKABEMA-	MEDWAY	WEST BRANC	24. 0	2100.0	1346	-3684	15, 40
MEGNE08047	CABOT MANU	BRUNSWICK,	ANDROSCOGG	38. 0	3410.0	1952	5154	16,170
ME6NE07010	WEBSTER LA	T6R10	WEBSTER BR	55. 0	288.0	1930	11219	16,176
MEGNE08016	WILLIAMS S	FMBDEN, SO	KENNEBEC R	45. 0	2740.0	3198	9436	16,281
ME6NE07022	BANCROFT	BANCROFT	MATTAWAMKE	30. 0	920.0	3718	19942	16,753
MEGNE08065	AUTOMATIC	WATERVILLE	MESSALONSK	26. 0	205.0	307	1508	18,107
ME6NE07028	GRAND FALL	GRAND FALL	PASSADUMKE	51. 0	200.0	1450	8801	18,452
ME6NE07013	BEAR RAPID	T3R7	EAST BRANC	26. 0	970.0	3593	18687	18,661
MECNE05391	BRASSUA LK	ROCKWOOD	BRASSUA LK	31. 0	726.0	2266	13289	19, 30
MECNE05269	AZISCOHOS	LINCOLN PL	MAGALLOWAY	55. 0	215.0	1559	8167	19,943
ME6NE07039	HOLER FALL	ATTEAN, SR	MOOSE RIVE	55. 0	208.0	1811	8567	20,485
MEGNE08023	SANDY RIVE	NORRIDGEWO	SANDY RIVE	17. 0	619.0	331	1995	21,138
MECNE05297	TELOS LK O	PATTEN	TLS WEST L	42. 0	270.0	1432	8148	21,210
MEANE05029	BARKER MIL	AUBURN	LT ANDROSG	51. 0	350.0	6370	17063	21,343
ME6NE07006	MASAROIS	MASAROIS	AROOSTOOK	85. 0	601.0	9533	36145	21,876
ME6NE07060	BRYE	ROXBURY	SWIFT RIVE	115. 0	120.0	1053	6412	22,670
ME6NE07019	DEBSCONEAG	T2R9	WEST BRANC	17. 0	1580.0	3756	19754	22,744
MECNE05270	M DM UN WT	ERROL	RCHOSN LKS	47. 0	509.0	12701	27700	23,269
MECNE05100	STANDISH D	GORHAM	EELWEIR CA	40. 0	437.0	6238	16710	23,322
ME6NE07011	POND PITCH	T5R8	EAST BRANC	80. 0	620.0	17190	50818	23,612
MEMNE05423	BURNHAM HY	BURNHAM	SEBASTICKR	27. 0	611.0	1293	7833	25,121
MEANE05476	MACHIAS R	MACHIAS	MACHIAS R	28. 0	450.0	4938	15146	25,932
ME6NE07008	HOLMES FAL	NORTHFIELD	MACHIAS RI	72. 0	300.0	8710	27271	25,986
MEANE05031	AUBURN DAM	AUBURN	LT ANDROSG	38. 0	350.0	4746	12714	26,236
MEANE05316	GRAND LAKE	MEDWAY	GR L MTGMN	25. 0	470.0	1235	7466	26,665
ME6NE07043	STEEPSIDE	T1R5, WEST	KENNEBEC R	136. 0	1570.0	111348	221229	28,186
MEANE05030	BARKER MIL	AUBURN	LT ANDROSG	36. 0	335.0	4303	11528	28,286
MEONE05002	GRAHAM LAK	ELLSWORTH	GRAHAM LAK	23. 0	452.0	1388	7717	28,419
MEINE08018	HAMOS	T1R6	INDIAN PON	149. 0	1382.0	30783	26292	29,773
MEANE05473	MACHIAS R	MACHIAS	MACHIAS R	20. 0	455.0	1358	7483	30,530
MEANE05474	MACHIAS R	MACHIAS	MACHIAS R	20. 0	450.0	1366	7469	30,691
MEANE05330	MILO EL LG	MILO	SEBEC R	22. 0	371.0	1246	6465	32,631
MEGNE08050	GREAT NORT	MADISON, A	KENNEBEC R	18. 0	3230.0	1523	5526	32,636
ME6NE07009	MARIAVILLE	MARIAVILLE	WEST BRANC	38. 0	150.0	1212	4955	33,589
ME6NE07001	BAILEY BRO	T9R17	BAKER BRAN	34. 0	244.0	1083	4928	33,662
ME6NE07003	BIG BLACK	T14,R14	BIG BLACK	66. 0	539.0	10859	29962	33,957
MEONE05137	KENNEBGO R	RANGLEY	KNNEBGO R	32. 0	146.0	1339	5454	34,230
MECNE05395	SEBOOMOOK	MILLINOCKE	SBMOOK LK	32. 0	550.0	8266	17309	34,529
MEANE05509	LEDGEMERE	LIMINGTON	LTLEOSPEFL	34. 0	152.0	771	4067	34,737
MEGNE08003	GULF ISLAN	LEWISTON,	ANDROSCOGG	56. 0	2860.0	7904	20044	35,750
ME6NE07015	LEDGE FALL	MEDWAY	EAST BRANC	17. 0	1100.0	6481	19114	35,799
ME6NE07014	MEADOW BRO	T1R7	EAST BRANC	17. 0	1100.0	6481	19092	35,840
MEANE05072	LTL MADAWA	CARIBOU	L MADWSK R	32. 0	250.0	1089	4637	36,377

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
MEANED5312	LINCOLN PL	LOWELL	PASSADUMKG	20. 0	301.0	803	4468	39.201
MEGNED8012	SHAWMUT	BENTON, FA	KENNEBEC R	27. 0	4250.0	525	-670	39.312
MEMNED9074	AMRCNTSSUE	GARDINER	CBBSSCNTST	37. 0	220.0	4113	7664	39.964
ME6NED7041	MOOSE RIVE	T2R1	MOOSE RIVE	15. 0	569.0	950	5327	40.641
ME6NED7020	PASSAMAGOR	T1R9	WEST BRANC	7. 0	1590.0	1249	7325	41.593
MESNED5353	ANDERSON M	SKOWHEGAN	KENNEBEC R	25. 0	3950.0	14877	72719	42.415
MECNED5138	CNTL ME PW	RANGELEY	KNNEBGO R	25. 0	146.0	1123	4411	43. 84
MEANED5500	RT FOUR DM	ELIOT	SALM FLS R	24. 0	252.0	928	4071	43.331
ME6NED7049	SOUTH MADI	MADISON	KENNEBEC R	17. 0	3240.0	22370	56121	43.886
MEANED5271	RICH UPPER	ERROL	RAPID R.	21. 0	405.0	4515	9847	44.128
ME6NED7079	DICKEY/LIN	ALLAGASH	ST. JOHN R	295. 0	2725.0	760000	1183000	45. 0
ME6NED7080	DICKEY/LIN	ST.FRANCIS	ST. JOHN R	64. 0	4086.0	70000	263000	45. 0
MEANED5464	VANCEBORO	VANCEBORO	ST CROIX R	13. 0	435.0	797	4764	45.298
MECNED5397	CANADA LK	CANADA FAL	CNADA FL L	26. 0	189.0	980	3840	45.624
MEMNED5304	CITY OF BA	BANGOR	PENOBSCOT	17. 0	7760.0	62847	147339	47.153
MEGNED8007	MIDDLE	RUMFORD	ANDROSCOGG	97. 0	2090.0	8013	23861	47.757
MEANED9075	RILEY INTE	JAY	ANDROSCOGN	25. 0	2440.0	40410	70248	48. 43
ME6NED7073	THE ARCHES	T3R11	WEST BRANC	77. 0	1415.0	21674	92994	48.127
ME6NED7034	ABOVE FOXC	SANGERVILL	PISCATAQUI	17. 0	350.0	943	4169	49.223
MECNED5384	GRTMOOSELK	HARTLAND	GRTMOOSELK	21. 0	235.0	966	3825	49.501
MEMNED5001	OTIS	JAY	ANDROSCOGG	24. 0	2490.0	39589	68820	50. 26
MEMNED5006	BANGOR HYD	OLD TOWN	STILLWATER	5. 0	7606.0	18117	42475	50.745
ME6NED7033	BASIN MILL	BRADLEY, O	PENOBSCOT	5. 0	7710.0	18365	43057	50.752
ME6NED7027	NICATOUS F	T3NO	NICATOUS S	38. 0	70.0	576	2337	50.887
MEANED8526	CENTRAL MA	SISTN TWP	KENNEBAGO	24. 0	112.0	850	3290	51.283
MEMNED5337	OVR FXCFT	OOVER FOXC	PISCTQS R	16. 0	352.0	892	3945	51.802
ME6NED7030	SPENCER RA	GREENBUSH,	PENOBSCOT	4. 0	7150.0	13625	31949	52. 20
MEGNED8041	EAST MILLI	EAST MILLI	WEST BRANC	29. 0	2086.0	3477	3254	52.435
ME6NED7035	ABOVE MILO	MILO	SEBIC RIVE	13. 0	390.0	689	3809	52.841
ME6NED7066	HIGHLAND R	BALDWIN, C	SACO RIVER	4. 0	1310.0	707	4264	53.817
MEANED5334	MSHD L E O	THE FORKS	MOSEHEAD L	14. 0	1240.0	8154	17073	55.445
ME6NED7052	ABOVE PHIL	PHILLIPS	SANDY RIVE	26. 0	131.0	678	2621	56.125
MEANED5511	KEZAR FALL	HIRAM	OSSIPEE RV	13. 0	420.0	1827	5977	56.184
ME6NED7053	MAPLEWOOD	STRONG	SANDY RIVE	20. 0	190.0	732	2971	56.542
MECNED8539	LEIGHS MIL	SOUTH BERW	LEIGHS MIL	28. 0	86.0	413	1995	56.556
MECNED8507	WEST GRAND	GRAND LAKE	BIG LAKE L	14. 0	240.0	441	2697	57.180
MEMNED5005	SWAN FALLS	FRYEBURG	SACO RIVER	10. 0	516.0	717	4038	57.214
MEMNED5382	TOWNOFPITT	PITTSFIELD	SEBASTICKR	15. 0	320.0	792	3432	57.365
MEMNED5388	GILMAN ST	NEW PORTLA	GILMAN ST	26. 0	134.0	690	2581	57.479
ME6NED7040	ATTEAN PON	T5R1	MOOSE RIVE	15. 0	278.0	726	3284	57.532
MEONED5341	SEBEC	SEBEC	SEBEC LAKE	14. 0	371.0	806	3600	57.717
MEONED5211	SENEBEC PD	UNION	SENEBEC PO	35. 0	116.0	2051	3932	57.881
MEANED5071	SHERIDAN D	ASHLAND	AROOSTOK R	6.50	1320.0	893	4432	58.325
MEGNED8025	SKELTON ST	BUXTON, DA	SACO RIVER	76. 0	1640.0	9575	20811	59.459
ME6NED7031	MARSH ISLA	BRADLEY	PENOBSCOT	13. 0	7480.0	46325	108608	60.930
MECNED8514	FLAGSTAFF	T3 R4 BKPW	FLAGSTAFF	63. 0	45.0	579	2129	61.322
ME6NED7029	SAPONAC	GRAND FALL	PASSADUMKE	13. 0	272.0	443	2605	61.827
MEANED5149	N BR DEAD	EUSTIS	NBRDEAD R	16. 0	236.0	610	2714	62.588
ME6NED7055	TAYLOR	NEW PORTLA	CARRABASSE	17. 0	210.0	601	2627	62.733
MEMNED5469	E MACHIAS	EAST MACHI	E MACHIAS	12. 0	286.0	539	2897	63.857

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
MEMNED5004	SNOW POND	OAKLAND	MESSALONSK	25. 0	175.0	2211	4237	64.735
ME6NED7046	THE FORKS	T1R4, THE	KENNEBEC R	17. 0	2470.0	6647	37208	65.348
MEANED5340	TWN MILO M	MILO	SEBEC RVR	10. 0	407.0	495	2884	66.213
ME6NED7038	SEBOEIS	SEBOEIS	SEBOEIS ST	17. 0	138.0	323	1796	67.664
ME6NED7065	HIRAM SITE	HIRAM	SACO RIVER	4. 0	795.0	429	2597	68.343
ME6NED7051	PITTSFIELD	DETROIT, P	SABASTICOO	9. 0	578.0	534	2904	68.358
MEANED8504	TWIN FRANK	FRANKFORT	NORTH BRAN	19. 0	130.0	501	2090	68.592
MEANED8542	ORANGE RV.	WHITING	ORANGE RIV	30. 0	42.0	236	1227	69.119
MEMNED8528	ROUTE 1 DA	KENNEBUNK	MOUSAM RIV	18. 0	125.0	361	1808	69.342
MEANED5328	DVR FXCT W	DOVER FOXC	PISCTQS R	12. 0	352.0	669	2959	69.816
MEANED8513	WHITNEY BR	T10 R3 WEL	PRESQUE IN	27. 0	90.0	418	1617	71.278
ME6NED7021	PLEASANT L	T4R3	EAST BR. M	26. 0	79.0	346	1363	78.646
MEMNED5003	YORKTOWN P	GARDINER	COBBOSSEEC	18. 0	220.0	2001	3835	78.967
ME6NED7058	PLEASANT R	BETHEL	ANDROSCOGG	4. 0	1670.0	4425	7693	79. 12
ME6NED7036	EBEEMEE LA	T5R9	EAST BR. P	21. 0	87.0	326	1410	79.737
ME6NED7078	CORSCODK B	EASTPORT,L	COBSCOOK B	10. 0	400.0	200000	660000	81.818
MEANED8524	GUILFORD D	GUILFORD	PISCATAQUI	12. 0	253.0	511	2192	82.103
ME6NED7050	EAST MADIS	CORNVILLE	WEST BRANC	30. 0	49.0	271	1096	82.293
MEANED8505	SPEARS MIL	WEST GARDI	COOBOSEECO	20. 0	154.0	1556	2983	82.570
ME6NED7062	DIXFIELD	DIXFIELD,	WEBB RIVER	17. 0	125.0	405	1636	82.903
MEMNED8541	MACHIAS RV	MACHIAS	MACHIAS RI	5. 0	450.0	347	1883	84.600
MEANED8517	OSSIPEE DA	PORTR PARF	OSSIPEE RI	7. 0	420.0	983	3218	84.608
MEANED8512	MOXIE POND	FORKS PIT	MOXIE POND	21. 0	89.0	345	1343	86. 26
MEONED8538	CRAWFORD P	UNION	CRAWFORD P	40. 0	30.0	224	880	86.899
MEANED8500	DANFORTH	DANFORTH	BASKAMEGAN	9. 0	205.0	262	1561	88.570
ME6NED7032	BRADFORD	ALTON	PUSHAW STR	17. 0	94.0	293	1310	88.635
MEANED5032	ROGERS FIR	MINOT	LT ANDROSG	11. 0	310.0	1216	3259	88.896
MEMNED8548	JOHNSON AU	BELFAST	PASAGASAKE	30. 0	42.0	213	907	89.419
MEINED8064	ESTES LAKE	ALFRED	ESTES LAKE	36. 0	106.0	288	-122	184.76
MEINED8042	DOLBY	EAST MILLI	DOLBY POND	54. 0	2080.0	6704	-1280	186. 0
MEGNED8052	MESSALONSK	OAKLAND	MESSALONSK	67. 0	175.0	1892	505	308.70

MASSACHUSETTS

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
MALNED8014	REAR SWAMP	ROWE	DEERFIELD	730. 0	2.0	0	0	0
MAINED8008	COBBLE MOU	RUSSELL	LITTLE RIV	456. 0	49.0	0	0	0
MAGNED8022	DEERFIELD	BUCKLAND,	DEERFIELD	68. 0	442.0	0	0	0
MAGNED8013	DEERFIELD	ROWE, MUNR	DEERFIELD	40. 0	237.0	0	0	0
MAGNED8015	DEERFIELD	SHELBURNE,	DEERFIELD	68. 0	445.0	0	0	0
MAGNED8021	FIFE	FLORIDA, R	DEERFIELD	120. 0	250.0	0	0	0
MAGNED801A	GARDINER F	BUCKLAND	DEERFIELD	39. 0	445.0	0	0	0
MAGNED8028	GOOSE POND	TYRINGHAM	GOOSE POND	20. 0	4.0	0	0	0
MAGNED8002	MUNGERVILL	CHICOPEE	CHICOPEE R	15. 0	718.0	0	0	0
MAGNED8019	NEW ENGLAN	SHELBURNE,	DEERFIELD	64. 0	445.0	0	0	0
MALNED8001	NORTHFIELD	ERVING	NORTHFIELD	1005. 0	1.0	0	0	0
MAGNED8010	OAKDALE	WEST BOYLS	QUINEPOXET	135. 0	33.0	0	0	0
MAGNED8026	OBLEARY DA	LAWRENCE	MERRIMACK	34. 0	4680.0	0	0	0

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMEN L CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
MAGNED8024	PAWTUCKET-	LOWELL	MERRIMACK	40. 0	4000.0	906	41952	0.72263
MAGNED8023	TURNER FAL	MONTAGUE,	CONNECTICU	75. 0	7862.0	4528	137948	1.7382
MAGNED8007	STRATMORE	RUSSELL	WESTFIELD	50. 0	336.0	391	5986	3. 215
MAGNED8006	WEST SPRIN	WEST SPRIN	WESTFIELD	32. 0	506.0	229	5110	3.2658
MAINED8009	QUABBIN RE	BELCHERTOW	SWIFT RIVE	155. 0	186.0	165	3752	3.8219
MAGNED8025	HOLYOKE DA	HOLYOKE, S	CONNECTICU	52. 0	8309.0	1122	13615	4.2639
MAGNED8005	INDIAN ORC	SPRINGFIEL	CHICOPEE R	35. 0	689.0	783	5352	5.4789
MAGNED8027	WESTFIELD	RUSSELL	WESTFIELD	25. 0	331.0	132	2264	5.6661
MAGNED8004	LUDLOW MAN	LUDLOW, WI	CHICOPEE R	51. 0	677.0	1184	6445	6.9782
MAGNED8017	DEERFIELD	BUCKLAND	DEERFIELD	39. 0	445.0	1135	-6400	8.1947
MAGNED8003	WESTERN MA	LUDLOW, WI	CHICOPEE R	44. 0	687.0	2343	9911	9.1293
MAINED8020	PEPPEREL P	PEPPERELL	NASHUA RIV	28. 0	433.0	468	2062	17.830
MAGNED8016	GARDINER F	SHELBURNE,	DEERFIELD	22. 0	445.0	1718	-4297	22.722
MAMNED0602	OLD GUARD	LOWELL	MERRIMACK	22. 0	4000.0	24628	82045	23.123
MAANED1074	WACHUSETT	CLINTON	NASHUA RIV	114. 0	108.0	1068	6517	23.150
MAMNED0603	NORTH CANA	LOWELL	MERRIMACK	30. 0	4000.0	33584	111880	24.732
MAANED1093	TUPPER DAM	BLACKSTONE	BLACKSTONE	33. 0	261.0	1278	6897	27. 75
MAMNED0601	SWAMP LOCK	LOWELL	MERRIMACK	16. 0	4000.0	17911	59669	30.624
MAANED0912	CHICOPEE F	CHICOPEE	CHICOPEE	18. 0	714.0	1355	8084	31. 20
MAMNED0906	CRESCENT M	RUSSELL	WESTFIELD	25. 0	329.0	1126	5936	33.169
MAMNED0787	RISINGDALE	GT. BARRIN	HOUSATONIC	22. 0	280.0	836	4725	37.893
MAONED0600	BOOK BINDE	MONTAGUE,	MILLER RIV	20. 0	390.0	1012	5354	38.140
MACNED0922	KNIGHTVILL	HUNTINGTON	WSTFLD R	30.50	162.0	962	4051	40.928
MAMNED0786	GLENDALE	STOCKBRIDGE	HOUSATONIC	21. 0	260.0	741	4188	41. 60
MACNED8523	SUDBURY RE	SOUTHBORO	STONY BROO	112. 0	23.0	263	1470	45.728
MAMNED0946	WARE IND D	WARE	WARE RIVER	23. 0	167.0	577	2866	51.615
MAANED8559	THE GORGE	RUSSELL	LITTLE RIV	45. 0	52.0	491	1903	56.153
MACNED8560	CONWAY POW	CONWAY	SOUTH RIVE	94. 0	26.0	440	1751	56.599
MACNED8521	LANCASTER	CLINTON	NASHUA RIV	25. 0	109.0	357	1995	57. 69
MACNED8553	TIGHE CARM	SOUTH HAMP	MANHAN RIV	125. 0	14.0	228	1074	58.108
MAANED8564	COLUMBIA M	LEE	HOUSATONIC	15. 0	215.0	417	2416	61.662
MACNED8530	FISHERVILL	GRAFTON	QUINSIGAMO	20. 0	133.0	423	2102	63.440
MACNED8516	SAXONVILLE	FRAMINGHAM	SUDBURY	25. 0	82.0	289	1554	66.403
MAMNED1090	FT DEVONS	AYER	NASHUA	15. 0	255.0	459	2316	67.386
MAANED8563	MILL DAM	LENOX	HOUSATONIC	14. 0	210.0	375	2186	67.462
MACNED8510	SOUTH WATU	FALL RIVER	QUEQUECHAN	47. 0	30.0	269	1187	68.296
MACNED8536	QUINEBAUG	DUDLEY	QUINEBAUG	17. 0	152.0	388	1928	71.285
MAONED8574	MACTAGGART	FITCHBURG	PHILLIPS B	98. 0	15.0	246	1058	72.342
MACNED8519	NEWTON UPP	NEWTON, NE	CHARLES RI	15. 0	211.0	395	1957	74.183
MAMNED0884	MILLER FAL	MILLER FAL	MILLER RIV	10. 0	390.0	498	2655	75. 9
MAANED8568	ECLIPSE DA	NORTH ADAM	NORTH BRAN	32. 0	39.0	268	1195	76.202
MAANED8505	WATERTOWN	WATERTOWN	CHARLES RI	13. 0	266.0	415	2094	77.230
MACNED8518	RESERVOIR	FRAMINGHAM	SUDBURY RI	22. 0	76.0	219	1224	77.551
MAMNED8524	BLACKSTONE	BLACKSTONE	BLACKSTONE	8. 0	359.0	398	2219	80. 30
MACNED8548	LAKE ROHUN	ATHOL	WILLOW BRO	72. 0	20.0	262	1042	81.744
MACNED8554	GRANVILLE	GRANVILLE	MUNN BROOK	100. 0	6.0	118	530	85.479
MAGNED8011	COSGROVE \	CLINTON	NASHUA RIV	98. 0	108.0	1316	1027	94.778
MAGNED8012	SHERMAN	ROWE, MUNR	DEERFIELD	80. 0	236.0	3019	824	322. 8

NEW HAMPSHIRE

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
NHGNED8004	ANDROSCOGG	GORHAM	ANDROSCOGG	31. 0	1431.0	0	0	0
NHGNED8003	CASCADES	GORHAM	ANDROSCOGG	46. 0	1380.0	0	0	0
NHGNED8021	CONTOOCOOK	JAFFREY	CONTOOCOOK	8. 0	2.5	0	0	0
NHGNED8001	CROSS POWE	BERLIN	ANDROSCOGG	21. 0	1350.0	0	0	0
NHGNED8008	GARVIN FAL	BOW	MERRIMACK	33. 0	2340.0	0	0	0
NHGNED8005	LEAD MINE	SHELBURNE	ANDROSCOGG	18. 0	1494.0	0	0	0
NHGNED8007	SAWMILL	BERLIN	ANDROSCOGG	17. 0	1370.0	0	0	0
NHGNED8002	RIVERSIDE	BERLIN	ANDROSCOGG	66. 0	1371.0	123	3994	1.5323
NHGNED8019	SUGAR RIVE	CLAREMONT	SUGAR RIVE	33. 0	270.0	111	2770	4.2000
NHGNED8017	N E POWER	MONROE	CONN. RIVE	30. 0	2200.0	1261	14463	4.4584
NHGNED8016	ANDROSCOGN	GORHAM	ANDROSCOGN	41. 0	1384.0	1879	17918	4.5014
NHGNED8022	CONTOOCOOK	BENNINGTON	CONTOOCOOK	25. 0	192.0	111	2252	4.5960
NHGNED8006	J. BRODIE	BERLIN	ANDROSCOGG	87. 0	1372.0	2490	20935	5.9377
NHGNED8018	SUGAR RIVE	CLAREMONT	SUGAR RIVE	26. 0	250.0	160	2055	7.3644
NHGNED8014	EASTMAN FA	FRANKLIN	PEMIGEWASS	27. 0	1013.0	1892	7147	10.474
NHGNED8012	HOOKSETT	HOOKSETT	MERRIMACK	15. 0	2807.0	939	8126	12. 25
NHGNED8011	AMOSKEAG	MANCHESTER	MERRIMACK	46. 0	2840.0	7762	25486	12.171
NHINED8015	JACKMAN RE	HILLSBOROU	JACKMAN RE	176. 0	66.5	524	2427	15.371
NHGNED8013	AYERS ISLA	BRISTOL	PEMIGEWASS	80. 0	746.0	3957	15727	19.979
NHCNED5724	LAKE FRANC	PITTSBURG	CONN R	100. 0	165.6	2235	11999	20.556
NHMNED5881	GREGGS FAL	GOFFSTOWN	PISCATAQUG	59. 0	190.0	1668	7525	21.625
NHMNED5895	MINES FALL	NASHUA	NASHUA R	35. 0	412.0	1585	8014	24.726
NHGNED8009	FIFTEEN MI	LITTLETON	CONNECTICU	159. 0	1600.0	74677	60651	25.231
NHONED0524	SALMON FAL	MILTON	SALMON FAL	99. 0	116.0	973	5345	25.489
NHMNED6080	SALMNFALLS	ROLLINSFOR	SALMONFLLR	45. 0	230.0	1469	6710	25.514
NHMNED0513	WINNIPESAU	FRANKLIN	WINNIPESAU	25. 0	475.0	1295	7714	26.429
NHMNED0510	SUNCOOK RI	PEMBROKE	SUNCOOK RI	37. 0	252.0	1338	6141	28.814
NHMNED0509	SUNCOOK RI	PEMBROKE	SUNCOOK RI	33. 0	252.0	1215	5527	31.914
NHMNED0520	CONTOOCOOK	CONCORD	CONTOOCOOK	17. 0	765.0	1277	7256	33. 73
NHMNED6028	LAMPREY RI	NEWMARKET	LAMPREY R	36. 0	208.0	1253	5236	33.191
NHANED6081	SALMON FAL	ROLLINSFOR	SALMNFALLR	35. 0	219.0	1283	5360	33.239
NHMNED5661	ASHUELOT R	HINSDALE	ASHUELOT R	21. 0	412.0	1142	5990	34.283
NHMNED0517	WINNIPESAU	FRANKLIN	WINNIPESAU	18. 0	487.8	1164	6341	35.100
NHMNED0504	ASHUELOT R	HINSDALE	ASHUELOT R	20. 0	418.0	1085	5739	35.490
NHGNED8020	GOODRICH F	BARTLETT	ELLIS RIVE	68. 0	53.0	508	1260	35.566
NHMNED0516	WINNIPESAU	FRANKLIN	WINNIPESAU	17. 0	481.0	1180	6170	37.293
NHMNED6059	COCHECO RV	DOVER	COCHECO RV	34. 0	183.0	1041	4351	37.468
NHMNED0511	WINNIPESAU	FRANKLIN	WINNIPESAU	17. 0	475.0	1166	6093	37.518
NHMNED0512	WINNIPESAU	FRANKLIN	WINNIPESAU	17. 0	475.0	1166	6093	37.518
NHMNED0515	WINNIPESAU	FRANKLIN	WINNIPESAU	17. 0	475.0	1166	6093	37.518
NHONED0523	STEELE POND	ANTRIM	NORTH BRAN	84. 0	60.0	939	3646	38.391
NHMNED5887	CONTOOCOOK	HILLSBOROU	CONTOOCOOK	21. 0	358.0	1055	5140	38.448
NHMNED6118	SUGAR RV O	CLAREMONT	SUGAR RV	28. 0	250.0	928	4163	39.478
NHMNED0514	WINNIPESAU	FRANKLIN	WINNIPESAU	16. 0	475.0	1121	5799	39.616
NHGNED8010	COMERFORD	MONROE	CONNECTICU	179. 0	1635.0	107028	51527	39.788
NHMNED5662	ASHUELOT R	HINSDALE	ASHUELOT R	18. 0	406.0	964	5059	40. 33
NHCNED5980	HOPKINTON	HOPKINTON	CONTOOCOOK	18. 0	426.0	973	4956	41. 59
NHMNED5896	JACKSON ML	NASHUA	NASHUA R	19. 0	412.0	933	4536	42.781
NHMNED5818	AMMONOOSC	LISBON	AMMONOOSUC	20. 0	288.0	607	3482	44.201
NHMNED5663	ASHUELOT R	HINSDALE	ASHUELOT R	16. 0	393.0	857	4427	45.209

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
NHMNED0500	SAWMILL DA	BERLIN	ANDROSCOGN	17. 0	1370.0	13253	27753	46. 51
NHMNED7072	TILTON	FRANKLIN	WINNIPESAU	92. 0	482.0	20000	29600	46.304
NHMNED599A	SEWALLS FA	CONCORD	MERRIMACK	12. 0	2233.0	13732	32003	48.776
NHCNED5716	ERROL DAM	ERROL	ANDROSCOGN	15. 0	1095.0	8720	19018	49.724
NHCNED5715	PONTOOK DA	MILAN	ANDROSCOGN	14. 0	1245.0	9254	20182	50.192
NHMNED0507	PISCATAQUO	MANCHESTER	PISCATAQUO	22. 0	214.0	776	3315	50.376
NHMNED5827	AMMONOOSUC	BATH	AMMONOOSUC	16. 0	327.0	532	3105	51. 59
NHMNED8519	SUGAR RIVE	SUNAPEE	SUGAR RIVE	74. 0	46.0	603	2329	51.187
NHMNED0525	SALMON FAL	ROLLINSFOR	SALMON FAL	20. 0	232.3	723	3150	53. 35
NHMNED852A	NEW ENGLAN	PITTSBURG	CONNECTICU	27. 0	82.6	736	2733	53.902
NHONED0506	GILES POND	FRANKLIN	SALMON BRO	92. 0	25.0	462	1811	55.308
NHMNED0508	SUNCOOK RI	PEMBROKE	SUNCOOK RI	18. 0	252.0	699	3093	55.929
NHMNED5718	GROVETON P	NORTHUMBER	CONN R	12. 0	1028.0	6549	1[illegible]286	56.692
NHMNED5568	WINNIPSKE	TILTON	WINNPSKEE	12. 0	418.0	709	3743	56.785
NHMNED5656	ASHUELOT R	SWANZEY	ASHUELOT R	14. 0	318.0	607	3134	57.778
NHMNED5987	CONTOCOK V	HENNIKER	CONTOCOK R	13. 0	374.0	631	3195	60.294
NHMNED8512	SALMON FAL	MILTON	SALMON FAL	28. 0	113.0	491	2010	60.757
NHMNED0518	CONTOOCOOK	CONCORD	CONTOOCOOK	8. 0	765.0	720	3767	61.451
NHMNED8558	NEWFOUND R	BRISTOL	PEMIGEWASS	30. 0	94.0	475	1888	61.538
NHMNED8570	WILDCAT BR	JACKSON	WILDCAT BR	112. 0	21.7	1046	2348	61.775
NHMNED5565	AVERY DAM	LACONIA	WINNEPESAK	11. 0	403.0	587	3204	62.754
NHANED5991	SUNCOOK RI	SUNCOOK	SUNCOOK R	16. 0	238.5	567	2567	63.787
NHANED6082	SALMON FAL	SOMERSWORT	SALMNFALLR	17. 0	219.0	545	2451	63.981
NHMNED8567	SALMON FAL	MILTON	SALMON FAL	26. 0	117.0	472	1932	64.129
NHMNED0521	CONTOOCOOK	HENNIKER	CONTOOCOOK	12. 0	380.0	592	2997	64.824
NHMNED0519	CONTOOCOOK	CONCORD	CONTOOCOOK	7. 0	769.0	610	3250	65.486
NHMNED5573	LOCHMERE	TILTON	WINNIPESAU	10. 0	430.2	558	3070	66.164
NHANED5597	PEQUAWKT D	CONWAY	PEQUAWKT P	10. 0	378.0	484	2836	66.563
NHMNED8517	MASCOMA RI	LEBANON	MASCOMA RI	19. 0	188.0	844	2716	67.844
NHMNED8542	MERRIMACK	MERRIMACK	SOUHEGAN R	18. 0	172.0	502	2164	67.936
NHMNED8540	SOUHEGAN R	MILFORD	SOUHEGAN R	20. 0	138.0	478	1985	68.903
NHANED8556	MAD RIVER	COMPTON	MAD RIVER	36. 0	57.5	342	1376	69.901
NHONED5583	BERRY BAY	FREEDOM	OSSIPEE R	15. 0	357.2	3894	6929	70.180
NHMNED8530	UPPER AMMO	NORTHUMBER	UPPER AMMO	13. 0	263.0	342	2011	70.337
NHBNED7018	THATCHER	NEWPORT	SOUTH BRAN	47. 0	34.0	277	1135	70.718
NHMNED5820	LITTLETON	LITTLETON	AMMONOOSUC	15. 0	230.0	457	2099	71.611
NHMNED854A	SUNCOOK RI	PITTSFIELD	SUNCOOK RI	21. 0	131.0	420	1736	73. 60
NHCNED5982	BLACKWATER	WEBSTER	BLACKWATER	19. 0	128.0	357	1661	73.336
NHMNED8509	ISINGLASS	BARRINGTON	ISINGLASS	30. 0	68.3	303	1275	74.387
NHMNED8574	CONTOOCOOK	BENNINGTON	CONTOOCOOK	15. 0	192.0	451	1980	75.457
NHANED8553	SOUHEGAN R	WILTON	SOUHEGAN R	20. 0	97.0	320	1494	75.733
NHCNED8573	WALERLOOM	NORTH IPSW	SOUHEGAN R	68. 0	23.1	251	1109	76. 19
NHMNED8547	SUNCOOK RI	PITTSFIELD	SUNCOOK RI	21. 0	120.0	379	1579	76.466
NHMNED0522	CONTOOCOOK	HOPKINTON	CONTOOCOOK	10. 0	388.0	456	2388	76.666
NHMNED0503	UPPER AMMO	NORTHUMBER	UPPER AMMO	11. 0	263.0	329	1912	78.278
NHMNED0501	SUGAR RIVE	NEWPORT	SUGAR RIVE	30. 0	60.0	292	1186	78.594
NHMNED8527	MINNEWAWA	MARLBORO	MINNEWAWA	65. 0	25.0	277	1129	80.596
NHONED8501	LAKEPORT D	LACONIA	WINNEPESAU	11. 0	363.0	1321	3711	81.401
NHMNED8505	SALMON FAL	MILTON	SALMON FAL	20. 0	114.0	322	1390	81.535
NHANED8550	SPICKET RI	SALEM	SPICKETT R	80. 0	23.2	257	981	82.548

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
NHMNED8510	COCHECO RI	ROCHESTER	COCHECO RI	25. 0	77.6	269	1175	82,639
NHMNED8514	MASCOMA RI	LEBANON	MASCOMA RI	15. 0	194.0	687	2213	83,240
NHMNED8534	BLACKWATER	SALISBURY	BLACKWATER	20. 0	102.5	305	1300	85. 17
NHMNED8506	SALMON FAL	ROCHESTER	SALMON FAL	17. 0	140.0	336	1451	85,346
NHMNED8521	MASCOMA RI	LEBANON	MASCOMA RI	15. 0	181.0	641	2064	86,227
NHMNED8546	CONTOOCOOK	PETERBORO	CONTOOCOOK	21. 0	68.8	214	1058	87,500
NHCNED8572	MONADNOCK	BENNINGTON	CONTOOCOOK	13. 0	192.0	378	1687	88,123
NHANED8515	SUGAR RIVE	CLAREMONT	SUGAR RIVE	12. 0	251.0	326	1625	88,366
NHMNED8536	SUNCOOK RI	PITTSFIELD	SUNCOOK RI	17. 0	131.0	304	1336	88,415
NHMNED8513	MASCOMA RI	LEBANON	MASCOMA RI	16. 0	150.0	567	1825	89,685

RHODE ISLAND

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
RIINED8001	GAINER MEM	SCITUATE	NORTH BRAN	86. 0	92.8	0	0	0
RIANED1767	WOONSOCK F	WOONSOCKET	BLACKSTONE	29. 0	369.0	1503	8329	25,572
RICNED1702	NATICK PON	WEST WARWI	PAWTUXET R	30. 0	179.8	736	4254	34,424
RIANED9059	MANVILLE	LINCOLN	BLACKSTONE	19. 0	430.0	1132	6312	35,117
RIANED9060	PAWTKET LO	PAWTUKET	BLACKSTONE	17. 0	478.0	1110	6232	37,151
RIANED1771	PRATT	ASHTON	BLACKSTONE	15. 0	444.0	840	4614	45,644
RIMNED1772	VALLY FALL	CENTRAL FA	BLACKSTONE	14. 0	446.0	877	4860	46,434
RIMNED8515	RIVER POIN	WEST WARWI	SOUTH BRAN	30. 0	73.0	432	2250	50,913
RIANED1769	ALBION	LINCOLN	BLACKSTONE	13. 0	433.0	801	4414	50,983
RIANED1773	CENT FALLS	PAWTUKET	BLACKSTONE	11. 0	477.0	727	4054	57,484
RIMNED8511	HARRIS MIL	COVENTRY	NORTH BRAN	25. 0	101.8	465	2219	58,131
RIANED1770	ASHTON DAM	LINCOLN	BLCKSTNE	11. 0	439.0	660	3704	59,931
RIMNED8519	ARTIC	WEST WARWI	SOUTH BRAN	24. 0	72.8	340	1781	63,475
RIANED8507	QUIDNICK U	COVENTRY	SOUTH BRAN	22. 0	68.3	300	1550	70,939
RIMNED8512	ARKWRIGHT	COVENTRY	NORTH BRAN	20. 0	100.8	364	1746	70,992
RIMNED8505	PAWTUCKET	PAWTUCKET	BLACKSTONE	7. 0	478.0	470	2604	74,210
RIONED8510	CENTERVILL	WEST WARWI	SOUTH BRAN	20. 0	72.4	289	1493	74,435
RICNED8504	HARRIS PON	WOONSOCKET	MILL RIVER	34. 0	33.7	198	922	85,611
RIANED8506	EAST PROVI	EAST PROVI	SEEKONK RI	25. 0	52.2	228	1054	87,783
RIMNED8500	POTTER MIL	WESTERLY,	PAWCATUCK	8. 0	240.3	312	1767	88,748

VERMONT

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
VTGNED8001	CANAAN	CANAAN	CONNECTICU	35. 0	377.0	0	0	0
VTGNED8041	GAGE	ST. JOHNSB	PASSUMPSIC	22. 0	415.0	0	0	0
VTGNED8022	GLEN	RUTLAND	EAST CREEK	173. 0	44.0	0	0	0
VTGNED8027	MOLLYS FAL	MARSHFIELD	MOLLYS BRO	328. 0	20.0	0	0	0
VTGNED8012	MORRISVILL	MORRISTOWN	LAMOILLE R	52. 0	225.0	0	0	0
VTGNED8010	PETERSON F	MILTON	LAMOILLE R	60. 0	700.0	0	0	0
VTGNED8019	PROCTOR	PROCTOR	OTTER CREE	120. 0	363.0	0	0	0
VTGNED8021	SALISBURY	SALISBURY	LEICESTER	160. 0	22.0	0	0	0
VTGNED8007	SHELDON SP	SHELDON	MISSISQUOI	79. 0	806.0	201	9763	1.9572
VTGNED8016	VERGENNES	VERGENNES	OTTER CREE	35. 0	873.0	299	7270	2.5210
VTGNED8002	GILMAN	LUNENBURG	CONNECTICU	27. 0	1538.0	1042	14110	3. 520
VTGNED8008	CLARKS FAL	MILTON	LAMOILLE R	44. 0	690.0	910	8535	3.9935
VTGNED8011	CADYS FALL	MORRISTOWN	LAMOILLE R	40. 0	250.0	243	3753	4.1355
VTGNED8037	CARVERS FA	WEST HAVEN	POULTNEY R	155. 0	185.0	382	6204	5. 784
VTGNED8015	HUNTINGTON	NEWHAVEN,	OTTER CREE	175. 0	753.0	1022	11201	7.3752
VTGNED8003	WILDER	HARTFORD	CONNECTICU	51. 0	3375.0	16259	97058	8.3176
VTGNED8017	WEYBRIDGE	WEYBRIDGE	OTTER CREE	31. 0	755.0	1135	5626	8.4564
VTGNED8018	MIDDLEBURY	MIDDLEBURY	OTTER CREE	28. 0	630.0	762	6372	8.5264
VTGNED8013	FAIRFAX FA	FAIRFAX	LAMOILLE R	85. 0	529.0	1086	9873	8.5602
VTGNED8042	PASSUMPSIC	BARNET	PASSUMPSIC	22. 0	424.0	76	885	8.8414
VTGNED8040	WOLCOTT DA	WOLCOTT	LAMOILLE R	56. 0	130.0	349	2337	9.3537
VTGNED8039	BAKERS FAL	TROY	MISSISQUOI	28. 0	97.0	148	1521	9.5805
VTGNED8032	NEWPORT TW	NEWPORT	CLYDE RIVE	55. 0	140.0	522	2714	9.9587
VTGNED8005	VERNON	VERNON	CONNECTICU	36. 0	6264.0	15805	146499	10.278
VTGNED8025	GORGE EIGH	SOUTH BURL	WINOOSKI R	34. 0	1080.0	2689	10857	10.507
VTGNED8026	MIDDLESEX	MIDDLESEX,	WINOOSKI R	52. 0	531.0	738	2442	11.647
VTGNED8009	MILTON FAL	MILTON	LAMOILLE R	95. 0	690.0	2624	11826	12. 44
VTMNE06269	BOLTON FAL	BOLTON	WINOOSKI R	50. 0	850.0	3813	23131	12.102
VTGNED8038	ENOSBURG F	ENOSBURG	MISSISQUOI	23. 0	596.0	465	3567	12.550
VTGNED8006	HIGHGATE F	HIGHGATE	MISSISQUOI	62. 0	820.0	3937	18675	13.274
VTGNED8043	LUBBER LAK	CHARLESTON	CLYDE RIVE	57. 0	108.0	290	1379	13.316
VTGNED8035	SEARSBURG	SEARSBURG	DEERFIELD	232. 0	98.0	461	2389	13.892
VTGNED8004	BELLOWS FA	ROCKINGHAM	CONNECTICU	63. 0	5414.0	17429	55367	17.339
VTGNED8033	PENSTONER	CHARLESTON	CLYDE RIVE	70. 0	108.0	641	3533	17.858
VTGNED8031	NEWPORT	NEWPORT	CLYDE RIVE	140. 0	140.0	1403	5637	19. 95
VTGNED8034	CAVENDISH	CAVENDISH	BLACK RIVE	120. 0	82.0	270	1068	21.820
VTANE06290	BALL MOUNT	JAMAICA	WEST RIVER	44.25	172.0	1201	6930	23.192
VTINE08036	HARRIMAN	WHITINGHAM	DEERFIELD	390. 0	184.0	5241	3754	25.194
VT6NE07042	BROCKWAY M	ROCKINGHAM	WILLIAMS R	111. 0	101.0	852	5103	25.535
VT6NED7024	PIERMONT	FAIRLEE	CONN. RIVE	20. 0	3104.0	19579	61939	26.470
VTGNED8014	BELDENS	NEWHAVEN,	OTTER CREE	41. 0	365.0	1044	2245	27. 38
VTMNE06222	BRADFORD	BRADFORD	WAITS RIV	50. 0	153.0	698	4169	28.980
VTMNE06315	DEWEYS MIL	N. HATLAND	OTTAUQUECH	40. 0	207.0	1262	5788	29.340
VT6NE07033	PAWLET	PAWLET	METTAWEE R	79. 0	63.0	800	4647	29.526
VT6NE07023	CASSVILLE	BRADFORD	WAITS RIVE	140. 0	138.0	4786	14989	29.705
VT6NED7011	E. ST. JOH	ST. JOHNSB	MOOSE RIVE	77. 0	117.0	863	4720	30.138
VT6NED7036	EAST CLARE	CLARENDON	MILL RIVER	57. 0	66.0	622	3558	30.643
VT6NE07019	HUNTINGTON	WEYBRIDGE	OTTER CREE	21. 0	749.0	4706	14774	31.333
VTGNE08024	GORGE NINE	ESSEX, WIL	WINOOSKI R	69. 0	1040.0	3560	10876	31.777
VT6NED7040	HAWKS MOUN	CAVENDISH	BLACK RIVE	162. 0	111.0	6335	17117	32.301

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VTMNED6156	TANNING CO	NORTH POWN	HOOSIC RIV	24. 0	220.0	1023	5904	32.462
VTANED6295	W DUMMERST	DUMMERSTON	WEST RIVER	26. 0	410.0	1285	6361	32.486
VTANED6220	UNION VILA	NORWICH	OMPOMPAN R	49. 0	126.0	615	3527	32.655
VT6NED7038	WEST WOODS	WOODSTOCK	OTTAUQUECH	89. 0	123.0	2483	8305	33.847
VT6NED7004	MILE 12	CONCORD	MOOSE RIVE	81. 0	86.0	848	4128	33.931
VT6NED7018	NEW HAVEN	NEW HAVEN	NEW HAVEN	57. 0	85.0	886	3718	34. 11
VT6NED7006	HUNTINGTON	RICHMOND	HUNTINGTON	85. 0	60.0	729	3747	34. 14
VTANED8519	NESHOBE	BRANDON	NESHOBE RI	63. 0	21.0	7975	21841	34.698
VTANED6187	AMERICAN W	BURLINGTON	WINOOSKI	20. 0	1100.0	6909	19638	34.998
VT6NED7003	STONE DAM	BLOOMFIELD	NULHEGAN R	153. 0	114.0	8728	20432	35.839
VT6NED7007	JOHNSON	JOHNSON	LAMOILLE R	60. 0	345.0	6278	18730	36.308
VTCNED6294	SOMERSET R	SEARSBURG	DEERFELD R	104. 0	30.0	421	2357	36.777
VT6NED7022	BOLTONVILL	NEWBURY	WELLS RIVE	55. 0	90.0	844	3396	36.999
VTMNED6317	EMERY MILL	QUECHEE	OTTAUQUECH	30. 0	205.0	971	4371	38.233
VT6NED7005	BROWN RIVE	WESTFORD	BROWNS RIV	43. 0	75.0	787	3445	38.704
VTMNED6142	MIDDLEBURY	MIDDLEBURY	OTTER CRK	15. 0	630.0	952	5730	39.254
VT6NED7030	RANDOLPH	BETHEL	THIRD BRAN	43. 0	109.0	420	2556	39.584
VT6NED7010	LYNDON CEN	LYNDON	MILLER RUN	55. 0	52.0	416	2343	39.608
VTANED6291	TOWNSHEND	TOWNSHEND	WEST RIVER	25.25	278.0	1119	4861	40.220
VTMNED6331	COMTU FALL	SPRINGFIEL	BLACKRIVER	30. 0	191.0	946	4083	40.391
VTANED6332	GILMAN DAM	SPRINGFIEL	BLACKRIVER	30. 0	191.0	946	4083	40.391
VT6NED7034	NORTH PAWL	PAWLET	METTAWEE R	55. 0	74.0	812	3047	40.506
VTANED6313	NO HARTLAN	HARTLAND	OTTAUQUECH	27.14	220.0	894	4165	40.621
VTMNED8531	NEFOHAMS M	BENSON	HUBBARDT R	19. 0	22.0	855	4581	41.982
VTMNED6318	HAMPSON	HARTLAND	OTTAUQUECH	25. 0	225.0	796	3796	43.733
VTMNED6279	MORETOWN E	MIDDLESEX	MAD RIVER	34. 0	130.0	793	3344	44. 53
VT6NED7012	FISH HATCH	ST. JOHNSB	SLEEPERS R	111. 0	41.0	387	1864	44.259
VTMNED9014	MONTPELR F	MONTPELIER	WINOOSKI R	25. 0	201.0	736	3475	46.145
VT6NED7017	E. MONTPEL	E. MONTPEL	WINOOSKI R	26. 0	183.0	736	3391	46.459
VTMNED8529	MANCHESTER	MANCHESTER	BATTENKILL	19. 0	18.0	700	3748	46.650
VTMNED6500	EAST HIGHG	HIGHGATE	MISSISQUOI	11. 0	810.0	950	5656	47.352
VT6NED7028	GAYSVILLE	STOCKBRIDG	WHITE RIVE	94. 0	226.0	16539	24372	47.672
VT6NED7002	JAY BRANCH	JAY	JAY BRANCH	119. 0	132.0	10808	18089	48.408
VT6NED7013	MILE 1	BARNET	JOES BROOK	85. 0	57.0	703	2583	48.647
VT6NED7047	NO 10	SOMERSET	EAST BRANC	68. 0	40.0	655	2741	48.846
VT6NED7001	SHELDON RE	SHELDON	BLACK CREE	30. 0	117.0	676	2865	49.244
VTGNED8044	TAFTSVILLF	WOODSTOCK	OTTAUQUECH	19. 0	190.0	257	664	49.791
VT6NED7043	BUNDY BROO	ROCKINGHAM	SAXTONS RI	43. 0	76.0	636	2414	50.503
VT6NED7035	WALLINGFOR	TINMOUTH	OTTER CREE	40. 0	96.0	536	2250	51.119
VT6NED7026	ROCHESTER	ROCHESTER	WHITE RIVE	43. 0	75.0	490	2059	52.540
VT6NED7037	RIVERSIDE	BRIDGEWATE	OTTAUQUECH	60. 0	38.0	360	2109	52.772
VT6NED7016	JOES BROOK	DANVILLE	JOES BROOK	85. 0	49.0	663	2319	52.806
VT6NED7045	RAWSONVILL	JAMAICA	WINDHALL R	68. 0	45.0	611	2286	56.757
VT6NED7014	MILE 2	BARNET	HOLLOW BRO	57. 0	47.0	426	1494	61.871
VTMNED8509	BOLTONVILL	NEWBURY	WELLS RIVE	30. 0	94.0	481	1924	62.480
VTMNED8522	DANIELS MI	MONTPELIER	NORTH BRAN	35. 0	70.0	538	1967	62.535
VTANED6314	NO SPRNGFE	NORTH SPRI	BLACK RIV	20.39	158.0	495	2241	63.765
VTCNED8502	SLACK	SPRINGFIEL	BLACK RIVE	18. 0	190.0	486	2270	65.946
VTMNED6199	SWANTON DA	SWANTON	MISSISQU R	10. 0	847.0	2795	7343	68.652
VT6NED7044	W. LONDOND	LONDONDERR	WEST RIVER	43. 0	43.0	351	1351	69.140

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COS (MILS/KWH)
VT6NED7041	REEDVILLE	CHESTER	MIDDLE BRA	57. 0	27.0	271	1090	69,943
VTMNED8514	NORTH TROY	TROY	MISSISQUOI	16. 0	137.0	277	165	72,218
VTCNED8505	MILL POND	WINDSOR	MILL BROOK	40. 0	43.7	333	1279	72,683
VTCNED8501	DEWEYS MIL	HARTFORD	OTTAUQUECH	15. 0	207.0	406	2016	72,946
VT6NED7008	WILD BRANC	WOLCOTT	WILD BRANC	77. 0	30.0	335	1258	74,112
VT6NED7025	COPPER FLA	STRAFFORD	WEST BRANC	51. 0	39.0	306	1092	76,579
VT6NED7032	QUECHEE	HARTFORD	OTTAUQUECH	17. 0	198.0	923	2661	79,165
VTMNED8525	RIPLEY MIL	RUTLAND	OTTER CREE	10. 0	307.0	339	2056	79,477
VTCNED8515	HARDWICK L	HARDWICK	LAMOILLE R	20. 0	118.0	365	1585	80,431
VT6NED7039	LUDLOW	LUDLOW	BLACK RIVE	38. 0	56.0	313	1223	80,776
VT6NED7027	WEST BR. W	ROCHESTER	WEST BRANC	60. 0	44.0	383	1414	81,103
VTANED8510	VERMONT TI	BENNINGTON	WALLOOMSAC	16. 0	95.0	198	1205	84,403
VTMNED6177	EAST RYGAT	EAST RYGAT	CONN RIVER	8. 0	2215.0	14981	21707	85. 10
VT6NED7021	HANCOCK	HANCOCK	WHITE RIVE	43. 0	30.0	150	744	85,702
VTMNED8512	MONTPELIER	MONTPELIER	WINOOSKI R	8. 0	438.0	309	1770	88,148
VTONED8523	NORTHFIELD	NORTHFIELD	DOG RIVER	25. 0	62.0	267	1112	89,484
VTGNED8029	GREAT FALL	LYNDON	PASSUMPSIC	61. 0	210.0	823	757	123.49
VTGNED8030	WEST DANVI	DANVILLE	JOES BROOK	180. 0	18.0	574	174	277.75
VTINED8020	SILVER LAK	LEICESTER	EAST CREEK	9. 0	676.0	908	-313	325.43
VTGNED8023	PITTSFORD	CHITTENDEN	EAST CREEK	481. 0	17.0	3070	-278	708.68
VTINED8028	WATERBURY	WATERBURY	LITTLE RIV	148. 0	109.0	2759	-183	1116.0

NEW YORK

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
NYGNAN0144	BLENHEIM S	NORTH BLEN	SCHOHARIE	95. 0	318.0	0	0	0
NYGNAN0075	FRANKLIN F	FRANKLIN F	SARANAC	58. 0	291.0	0	0	0
NYGNAN0100	GRAHAMSVIL		BONDOUT AR	17. 0	239.0	0	0	0
NYGNAN0127	SCHAGHTICO		HOOSIC	148. 5	635.0	0	0	0
NYGNAN0038	SCHOOL ST		MOHAWK RIV	96. 0	3455.0	0	0	0
NYGNAN0188	VICTORY MI	VICTORY MI	FISH CREEK	40. 0	252.0	0	0	0
NYGNAN0176	BAKERS FAL	FORT EDWAR	HUDSON	58. 0	2810.0	708	16901	2. 761
NYGNAN0196	MIDDLE FAL	GREENWICH	BATTEN KILL	55. 0	436.0	222	3665	3.5568
NYGNAN0192	MOREAU	FORT EDWAR	HUDSON	56.50	2812.0	1500	12096	9.5341
NYANAN0184	FORT EDWAR	FORT MILLE	HUDSON	38. 0	2815.0	19072	89709	12.771
NYGNAN0046	PLATTSBURG	PLATTSBURG	SARANAC	20. 0	575.0	524	4709	13. 55
NYGNAN0148	STURGEON P	EDDYVILLE	KALLKILL	108. 0	785.0	10179	18747	16.343
NYGNAN0180	PALMER FAL	CORINTH	HUDSON	85. 0	1664.0	20293	85510	17. 94
NYGNAN0102	DOLGEVILLE	DOLGEVILLE	EAST CANAD	51. 0	261.0	6419	18399	19. 32
NYGNAN0055	VISCHER FE	VISCHER FE	MOHAWK RIV	29.25	3409.0	11222	41017	18.345
NYANAN0175	ASHOKAN DA	OLIVE BRID	ESOPUS CRE	252. 0	257.0	19563	56620	15.506
NYGNAN0039	GREEN ISLA		HUDSON RIV	15. 0	8100.0	11487	56262	19.997
NYANAN0190	WATERFORD		HUDSON RIV	14. 0	4620.0	5660	38994	19.153
NYANAN0174	WATERFORD		HUDSON R	14. 0	4570.0	5711	39922	19.322
NYCNAP0017	CANNONSVILLE	CANNONSVIL	W BR DELAW	148.1	453.0	19009	56071	20.630
NYANAN0177	STILLWATER	SCHAGHTICO	HUDSON RIV	14. 0	3760.0	5804	36077	21.256

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
NYGN[illegible]0185	SOUTH GLEN	GLENS FALL	HUDSON	47.0	2907.0	52030	113215	21.390
NYANA[illegible]0059	ALICE FALL	AUSABLE CH	AUSABLE RI	49.0	469.0	6604	19218	22.60
NYGN[illegible]0129	JOHNSTOWN		HOOSIC	40.0	604.0	6059	14620	22.681
NYA[illegible]	KYSER LAKE	INGHAM MTL	EAST CANAD	116.0	278.0	15599	47227	23.714
NYB[illegible]0041	CADYVILLE	ADDISMILLS	SARANAC	75.0	576.0	6190	19544	23.747
NYDN[illegible]0137	NO NAME #1	CLOTHRER M	UPPER HUDS	36.0	2760.0	43672	106193	24.121
NYG[illegible]0147	SCHUYLERVI		FISH CREEK	50.0	252.0	402	2098	24.403
NYA[illegible]0067	CLINTONVIL	CLINTONVIL	AUSABLE RI	40.0	447.0	5013	15179	24.511
NYA[illegible]0169	KETTLE MOU	STREAM RIV	HUDSON	30.0	641.0	6390	21257	24.542
NYG[illegible]0048	MILL C	MORRISVILL	SARANAC	55.0	575.0	4763	17497	24.663
NYG[illegible]0101	LITTLE FAL		N. CANADA	19.0	375.0	1035	6327	25.24
NYG[illegible]0042	PLATTSBURG	PLATTSBURG	SARANAC	43.0	597.0	8930	17954	25.73
NYB[illegible]0136	CONKLINGVI	HADLEY AND	SACANDAGA	80.0	1055.0	33731	103664	25.90
NYG[illegible]0198	GREENWICH		BATTENKILL	106.0	443.0	20357	46841	25.403
NYG[illegible]0179	CURTIS		HUDSON	24.0	2755.0	14570	42740	25.676
NYC[illegible]0045	HIGH FALLS	MOFFITSVIL	SARANAC RI	47.0	495.0	7392	19513	25.941
NYC[illegible]0112	NO NAME #5	WALDEN	WALLKILL R	36.0	556.0	5802	16700	26.126
NYA[illegible]0139	CONKLINGVI	HADLEY	SACANDAGA	35.0	1044.0	14097	35655	26.138
NYG[illegible]0049	KENT FALLS	SCHUYLER F	SARANAC	152.0	576.0	33431	39788	26.530
NYA[illegible]0175	STILLWATER	SCHAGTICOK	HUDSON	9.0	3782.0	3753	23329	27.345
NYB[illegible]0186	STEWARTS B	HADLEY	SACANDAGA	100.0	1054.0	8626	9349	27.416
NYA[illegible]0164	NEW CROTON	CORTLAND	CROTON	131.0	375.0	16837	40833	27.682
NYA[illegible]0147	MERRIMAN D	LACKAWACK	RONDOUT CR	175.0	95.0	7294	23357	28.725
NYG[illegible]0050	PLATTSBURG	PLATTSBURG	SARANAC	27.0	596.0	3662	8661	28.889
NYC[illegible]0068	CHERRY PAT	LAKE PLACI	WEST BR. A	70.0	177.0	1029	5906	28.973
NYG[illegible]0184	FEEDER DAM	FERNWOOD	HUDSON	23.0	2700.0	12099	32804	29.676
NYCNAP0016	PEPACTON	DOWNSVILLE	E BR DELAW	178.5	371.0	21870	39529	29.708
NYC[illegible]0070	CHATY LAKE	MOFFETSTE	CEDAR RIVE	38.0	160.0	6515	20545	29.774
NYD[illegible]0151	GARDINER	GARDINER	WALL KILL	39.0	711.0	11245	24669	30.25
NYC[illegible]0155	SCHROON RI	WARRENSBUR	SCHROON RI	24.0	550.0	4599	14691	30.908
NYG[illegible]0178	MECHANICVI		HUDSON	18.0	4500.0	13582	43053	30.934
NYD[illegible]0054	TREEDWELLS		SARANAC RI	27.0	595.0	4512	13661	31.541
NYD[illegible]0105	DELTA DAM	ROME	MOHAWK RIV	100.0	140.0	3884	18969	32.61
NYB[illegible]0082	INGHAMS	INGHAMS MI	EAST CANAD	125.0	275.0	20570	24603	32.136
NYD[illegible]0072	TICONDEROG	TICONDEROG	TICONDEROG	134.0	183.0	6827	20406	32.244
NYD[illegible]0119	CROTON FAL	CROTON FAL	WEST CROTO	112.0	169.0	4565	14552	32.839
NYD[illegible]0077	PECKS LAKE	MR. BARCLA	PECK CREEK	40.0	18.0	5794	12641	32.995
NYC[illegible]0160	TROUT BROO	POTTERSVIL	TROUT BROO	93.0	91.0	2947	10198	33.577
NYA[illegible]0109	N Y NO NAM	PARADISE	NEVERSINK	40.0	303.0	4839	10372	33.610
NYD[illegible]0101	WILMURT	WILMURT	WEST CANAD	130.0	225.0	14129	32788	33.639
NYB[illegible]0191	CRESCENT	COHOES	MOHAWK RIV	28.0	3456.0	25998	52370	33.821
NYG[illegible]0095	PROSPECT		WEST CANAD	139.0	375.0	21459	59129	35.159
NYB[illegible]0172	STUYVESANT	STUYVESANT	KINDERHOOK	103.0	325.0	5102	12406	36.7
NYD[illegible]0126	HOOSIC FAL		HOOSIC	30.0	339.0	4393	11139	36.800
NYC[illegible]0154	CANTINE	BIG INDIAN	ESOPUS CRE	38.0	175.0	3763	8934	37.69
NYA[illegible]0092	PISECO LAK	PISECO	WEST BR SA	32.79	149.0	2129	7113	37.177
NYD[illegible]0096	CAIRO	CAIRO	CATSKILL C	40.0	227.0	4812	9902	37.201
NYCNAP0031	NEVERSINK	WOODBOURNE	NEVERSINK	174.1	93.0	3311	9394	37.370
NY[illegible]0071	J J RIG	AUSABLE FO	AUSABLE RI	92.0	800.0	15467	33295	37.400
NY[illegible]0166	UNDERWOOD		SARANAC	22.0	599.0	4571	12713	37.729
NY[illegible]0073	WADHAMS NO		BOUQUET RI	44.0	131.0	2043	5394	10.759
NYD[illegible]0174	TRUMP POI	SHELLBNIL	TR TO CANA	27.0	23.0	4330	10831	[illegible]
NYA[illegible]0054	GROVEVILLE	[illegible]	FIS-KILL C	32.0	270.0	2255	6496	[illegible]

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*NYDNAB0088	INDIAN LAK	INDIAN LAK	INDIAN RIV	41. 0	5.0	1890	9345	41.778
*NYGNAN0190	FENIMORE D		HUDSON	80. 0	2810.0	00808	880261	42.567
*NYBNA0159	GLEN FALLS		HUDSON	23. 0	2807.0	10216	18209	42.598
*NYBN 0197	CARVERS FA		POULTNEY	115. 0	186.0	3149	6518	42.764
*NYGN 0193	MECHANICVI	WATERFORD	HUDSON	17.50	4572.0	16347	36813	42.977
NYCNAB0031	E SIDNEY	UNADILLA	OULCOUT	49.5	102.0	1698	4491	43.450
*NYGNA0043	ROME DAM	AUSABLE FO	WEST BRANC	32. 0	237.0	968	1507	50.492
*NYGNA0056	WAPPINGERS	WAPPINGERS	WAPPINGER	95. 0	197.0	3071	5479	50.649
NYCNAB0025	WHITNEY PT	WHITNEY PT	OTSELIC R	28.3	255.0	1954	5254	50.911
*NYBNA0109	DANNVILLE	DANVILLE	WALLKILL	34. 0	765.0	5617	5564	61.973
*NYGNAN0099	TRENTON FA	TRENTON FA	WEST CANAD	266. 0	376.0	71248	18635	63.503
*NYGNA0158	SPIER FALL	HUDSON FAL	HUDSON RIV	94. 0	2779.0	41307	25361	79.515
*NYBNA0173	BEARDSLEE	ST. JOHNSV	EAST CANAD	158.50	289.0	16953	4805	92. 34
*NYBN 0156	SHERMAN IS	GLENS FALL	HUDSON RIV	60. 0	2806.0	42447	28930	95.037
*NYDNA0100	PROSPECT D	PROSPECT	WEST CANAD	137.50	379.0	31636	2969	207.A9
*NYJNCB0128	ALLEN FALL	ALLEN FALL	WEST BRANC	221. 0	200.0	0	0	0
*NYHNCB0078	BEAVER FAL	BEAVER FAL	BEAVER RIV	30. 0	325.0	0	0	0
*NYGNCB0062	BEEBEE ISL	WATERTOWN	BLACK RIVE	34. 0	1876.0	0	0	0
*NYJNCB0038	BELFORT	CROGHAN	BEAVER RIV	48. 0	252.0	0	0	0
*NYJNCB0117	BENNETT BR	BENNETT BR	SALMON RIV	284. 0	191.0	0	0	0
*NYGNCB0065	CARTHAGE P		BLACK RIVE	8. 0	1805.0	0	0	0
*NYHNCB0021	CHASM FALL	TITUSVILLE	SALMON RIV	266.29	125.0	0	0	0
*NYHNCB0059	DEFERIET	DEFERIET	BLACK RIVE	47. 0	1817.0	0	0	0
*NYHNCB0144	EAST NORFO	NORFOLK	RAQUETTE R	32. 0	1063.0	0	0	0
*NYJNCB0043	EFFLEY FAL	BELFORT	BEAVER RIV	54. 0	249.0	0	0	0
*NYGNCB0142	HEMITTVILL	NORWOOD	RAQUETTE R	15. 0	1036.0	0	0	0
*NYJNCB0077	HIGH FALLS	CROGHAN	BEAVER RIV	95.50	267.0	0	0	0
*NYJNCB0141	HIGLEY	COLTON	RAQUETTE R	46. 0	979.0	0	0	0
*NYHNCB0160	KEUKA HYDR		KEUKA LAKE	390. 0	45.0	0	0	0
*NYJNCB0019	MACOMB	MOVE	SALMON RIV	53. 0	183.0	0	0	0
*NYGNCB0123	MINETTO	OSWEGO	OSWEGO RIV	17.29	5097.0	0	0	0
*NYINCB0139	MOSES SAUN	ROOSEVELTO	ST LAWRENC	93. 0	300000.0	0	0	0
*NYJNCB0133	NEWTON FAL	NEWTON FAL	OSWEGATCHI	48. 0	165.0	0	0	0
*NYINCB0143	NORWOOD	NORWOOD	RAQUETTE R	21. 0	1045.0	0	0	0
*NYHNCB0129	PARISHVILL	PARISHVILL	W BR ST RE	143.50	177.0	0	0	0
*NYJNCB0170	PIERCEFIEL		RAQUETTE R	35. 0	722.0	0	0	0
*NYJNCB0152	RAINBOW FA	SOUTH COLT	RAQUETTE R	102. 0	929.0	0	0	0
*NYJNCB0042	SOFT MAPLE	BELFORT	BEAVER RIV	126. 0	240.0	0	0	0
*NYJNCB0150	SOUTH COLT	SOUTH COLT	RAQUETTE R	95. 0	942.0	0	0	0
*NYJNCB0154	STARK DEVE	STARK	RAQUETTE R	105. 0	877.0	0	0	0
*NYHNCB0091	STATION #5	ROCHESTER	GENESEE RI	137. 0	2460.0	0	0	0
*NYINCB0115	WATERPORT	THE BRIDGE	OAK ORCHAR	78. 0	215.0	0	0	0
*NYLNCB0097	ROBERT MOS		NIAGARA RI	314. 0	263460.0	193717	-1158199	1.9739
*NYJNCB0149	COLTON	COLTON	RAQUETTE R	285. 0	951.0	6464	57233	2.6952
*NYHNCB0124	GRANBY	CANTON	OSWEGO RIV	28.50	5015.0	972	14557	3. 915
*NYGNCB0118	VARICK	OSWEGO	OSWEGO RIV	20. 0	5097.0	879	14721	3.2893
*NYINCB0125	SENECA FAL	SENECA FAL	SENECA RIV	50. 0	779.0	1143	12567	3.3236
*NYGNCB0079	MILL NO 3		BLACK RIVE	69. 0	871.0	741	17910	3.6330
*NYGNCB0056	DEXTER	DEXTER	BLACK RIVE	12. 0	1917.0	242	8200	3.7995
*NYHNCB0172	EMERYVILLE		OSWEGATCHI	32. 0	650.0	219	4627	3.8255
*NYHNCB0092	STATION #2	ROCHESTER	GENESEE RI	25. 0	2460.0	779	7979	4.3730
*NYGNCB0081	MILL NO 5		MOOSE RIVE	50. 0	826.0	477	5903	4.5327
*NYGNCB0064	CROWN ZELL		BLACK RIVE	30. 0	1805.0	959	9738	4.8013
*NYJNCB0151	FIVE FALLS	SOUTH COLT	RAQUETTE R	103. 0	932.0	2344	12945	4.8942
*NYHNCB0145	NORFOLK	NORFOLK	RAQUETTE R	42. 0	1065.0	854	8535	5.2927
*NYHNCB0146	RAYMONDVIL	RAYMONDVIL	RAQUETTE R	22. 0	1077.0	239	4217	5.4753
*NYJNCB0148	HANNAWA	POTSDAM	RAQUETTE R	81. 0	993.0	1210	12954	5.6464

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
NYHNC80176	NATURAL DA		OSWEGATCHI	20. 0	748.0	315	5586	6. 247
NYGNC80111	BALD IVSVI		SENECA RIV	8. 0	3139.0	73	2344	6. 248
NYGNC80064	DIAMOND IS		BLACK RIVE	10. 0	1975.0	415	9289	6.1045
NYGNC80120	LOWER FULT	FULTON	OSWEGO RIV	17.50	5018.0	374	6986	6.1388
NYJNC80154	BROOKS FAL	FINE	OSWEGATCHI	270. 0	178.0	1861	7752	6.3153
NYGNC80014	SPRINGVILL		CATTARAUGU	30. 0	220.0	83	1495	6.7053
NYHNC80060	KAMPSO	BLACK RIVE	BLACK RIVE	27. 0	1855.0	1048	13183	6.7062
NYGNC80080	PORT LEYDE		BLACK RIVE	21. 0	407.0	157	2756	6.8659
NYINC80126	WATERLOO	WATERLOO	SENECA RIV	17. 0	708.0	257	3957	7.2171
NYHNC80174	WATLESBORO		OSWEGATCHI	30. 0	660.0	515	5834	7.3752
NYHNC80136	NEWTON FAL	NEWTON FAL	OSWEGATCHI	24. 0	170.0	103	1606	7.6427
NYGNC80074	HARRISVILL		W BR OSWEG	34. 0	189.0	205	2747	7.8925
NYCNC80054	GLEN PARK	GLEN PARK	BLACK RIVE	50. 0	1902.0	5545	46593	7.9677
NYCNC80045	GLEN PARK	GLEN PARK	BLACK RIVE	50. 0	1879.0	5475	46005	8. 9
NYCNC80046	GLE PARK	WATERTOWN	BLACK RIVE	50. 0	1876.0	5469	45955	8. 37
NYGNC80082	MILL R		MOOSE RIVE	30. 0	431.0	403	4111	8.3397
NYONC80049	FELTS MILL	TOWN OF BL	BLACK RIVE	44. 0	1851.0	6315	49931	8.4604
NY4NC80096	LOWER NIAG		NIAGARA RI	90. 0	263460.0	1214035	9688969	8.6366
NYHNC80093	STATION #2	ROCHESTER	GENESSEE R	91. 0	2460.0	1888	13178	8.7127
NYINC80053	THERESA #1	THERESA	INDIAN RIV	66.50	323.0	552	7308	8.7380
NYGNC80173	FOWLER		OSWEGATCHI	22. 0	660.0	174	2115	8.7966
NYGNC80057	WATERTOWN	WATERTOWN	BLACK RIVE	27. 0	1874.0	1054	9551	9. 727
NYGNC80076	DENLEY DA	PORT LEYDE	BLACK RIVE	22. 0	398.0	201	2597	9.1729
NYJNC80037	TAYLORVILL	BELFORT	BEAVER RIV	104. 0	251.0	532	5171	9.9574
NYHNC80147	SUGAR ISLA	POTSDAM	RAQUETTE R	63. 0	994.0	1703	15573	9.9093
NYINC80177	YALEVILLE		RAQUETTE R	10. 0	1040.0	250	3911	11.686
NYJNC80039	MOSHIER	BELFORT	BEAVER RIV	213. 0	182.0	1197	8534	11.960
NYGNC80119	HIGH DAM	OSWEGO	OSWEGO RIV	21. 0	5097.0	2562	11857	11.967
NYHNC80061	SEVALLS IS	WATERTOWN	BLACK RIVE	17. 0	1375.0	723	6451	12.628
NYJNC80153	BLAKE FALL	SOUTH COLT	RAQUETTE R	68. 0	907.0	1816	9712	12.705
NYCNC80155	CARRY FALL	STARK	RAQUETTE R	75. 0	877.0	8029	56573	13.117
NYCNC50022	CHASM POWE	BRAYTON HO	CHATEAUGAY	290. 0	119.0	2159	17409	13.816
NYINC80114	GLENWOOD	RIDGEWAY	OAK ORCHAR	59. 0	143.0	433	4629	14.266
NYGNC80026	HOGANSBURG		ST REGIS R	10.19	942.0	142	1691	15.105
NYJNC90041	EAGLE FALL	BELFORT	BEAVER RIV	136. 0	229.0	1220	7195	15.271
NYHNC80127	DEXTER ELE	DANTON	GRASS RIVE	75. 0	335.0	470	3568	15.493
NYCNC80088	MOUNT MORR	VILLAGE OF	GENESEE RI	114. 0	1070.0	2668	19925	15.744
NYGNC80159	EEL WEIR	OGDENSBURG	OSWEGATCHI	13. 0	1590.0	1094	6129	15.803
NYGNC80132	HEJVELTON	HEJVELTON	OSWEGATCHI	15.50	995.0	532	4098	15.906
NYJNC80040	ELMER	BELFORT	BEAVER RIV	37. 0	251.0	283	1981	18.156
NYGNC80121	OSWEGO FAL	FULTON	OSWEGO RIV	16.50	5018.0	3872	21383	19.227
NYMNC80069	LYONSDALE		MOOSE RIVE	37. 0	426.0	1933	11421	19.929
NYHNC80156	SOUTH EDWA	EDWARDS	OSWEGATCHI	85. 0	277.0	449	2097	20.650
NYMNC80048	GREAT BEND	GREAT BEND	BLACK RIVE	16. 0	1836.0	3507	24200	21.290
NYGNC80055	BLACK RIVE	WATERTOWN	BLACK RIVE	34. 0	1855.0	2049	4268	21.509
NYGNC80058	HERRINGS	HERRING	BLACK RIVE	19.50	1910.0	2291	12147	22.044
NYNNC80083	PHILADELPH		INDIAN RIV	50. 0	229.0	1506	6753	22.174
NYGNC80140	UNIONVILLE	MORWOOD	RAQUETTE R	16. 0	1037.0	156	954	[illegible]
NYBNC80029	CHATEAUGAY		CHATEAUGAY	150. 0	119.0	1227	4752	[illegible]
NYCNC80050	WEST END D	HERRINGS	BLACK RIVE	14. 0	1900.0	2474	15155	[illegible]
NYMNC80051	TANNERY IS	HERRINGS	BLACK RIVE	13. 0	1737.0	2141	16936	[illegible]
NYPNC80182	BEERE LAKE	CAYUGA HEI	FALL CREEK	143. 0	120.0	982	6529	[illegible]
NYMNC80149	POTSDAM		RAQUETTE R	9. 0	1031.0	1000	11493	26.970
NYCNC80161	JACKSON FA		GRASS RIVE	30. 0	329.0	1319	7053	[illegible]
NYGNC80087	STILLWATER	DIFFAN	GENESEE R	20. 0	1071.0	366	1434	[illegible]

SITE ID	PROJECT NAME	COMMUNITY	STREAM	GROSS HEAD (FT)	DRAINAGE AREA	INCREMENTL CAPACITY (KW)	INCREMENTL ENERGY (MWH)	ENERGY COST (MILS/KWH)
NYCNC80036	STILLWATER	MOSHIER FA	BEAVER RIV	30. 0	179.0	1013	6162	29.410
NY7NC80001	PORTAGE		GENESEE RI	439. 0	985.0	51143	218941	30.780
NYANC80090	NEW YORK S	ROCHESTER	GENESEE RI	14. 0	2460.0	2813	15562	31. 77
NYANC80075	BEAVER FAL	BEAVER FAL	BEAVER RIV	20. 0	324.0	1057	7069	31.574
NYCNC80047	NYNDWME 2	WATERTOWN	BLACK RIVE	9. 0	1876.0	1837	12964	32.687
NYMNC80131	OSWEGATCHI	OGDENSBURG	OSWEGATCHI	11. 0	1580.0	1772	11257	35.604
NY4NC80073	MOOSE RIVE		MOOSE RIVE	140. 0	368.0	20010	57734	36.196
NYGNC80175	PLANT NO 7		OSWEGATCHI	15. 0	660.0	1239	7142	38.937
NY7NC80084	FOWLERSVIL		MOOSE RIVE	195. 0	422.0	18157	91186	40.232
NY6NC80101	FISH CREEK		EAST BRANC	190. 0	172.0	16678	49644	43. 15
NY5NC80168	FORT JACKS		E. BR. ST.	240. 0	302.0	23746	72179	43.521
NY5NC80167	MICHOLVILL		E. BR. ST.	260. 0	280.0	24807	72985	45.933
NY6NC80069	FISH CREEK		EAST BRANC	240. 0	109.0	20288	44321	48.809
NYYNC80064	BROWNVILLE	BROWNVILLE	BLACK RIVE	29. 0	1913.0	16116	65785	49.801
NY5NC80165	MOOSEHEAD		RAQUETTE R	95. 0	784.0	11998	59627	50.868
NY6NC80100	NO 2		EAST BRANC	160. 0	150.0	17879	40286	54.352
NYINC80157	FLAT ROCK	FIVE	OSWEGATCHI	59. 0	262.0	2042	2052	64.118
NY6NC80102	HAWKINSVIL		BLACK RIVE	139. 0	265.0	19669	32376	125.17
NYINC80116	SALMON R	ALMAR	SALMON RIV	65. 0	195.0	2949	-719	501.20

Table 8-8

NPCC STUDY AREA

COMPUTER LISTING OF FILE-BY PROJECT TYPE

TABLE 8-8
NPCC Study Area
Computer Listing of Active File-By Project Type

EXISTING DAMS

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
CTCNED0500	LAKE HOUSATONIC	DERBY, SHELTON	LAKE HOUSATONIC	35	1574	5743	34386	11,864
CTMNED0137	KINNEYTOWNDAM	SEYMOUR	NAUGATUCKR	30	300	1275	6969	27,440
CTCNED0128	RIMMON POND	SEYMOUR	NAUGATCKRV	30	300	1275	6969	27,440
CTCNED0081	BARKHAMSTED RS	NEW HARTFORD	E BR FAR R	135	52	750	4025	29,561
CTCNED9064	HOGRACK DAM	HARTLAND	WBFARMIGTN	104	127	4353	14171	30, 59
CTMNED0502	SPOONER DAM	KENT	HOUSATONICRIVER	17	781	1425	8654	30,634
CTCNED0071	COLEBRK RVLK	COLEBROOK	W B FARM R	60	118	848	5155	32,253
CTCNED0012	S P SENIORDAM	WESTON	E BR SAU R	110	34	455	2450	36,789
CTMNED0078	CTNONAME FORTN	NEW MILFORD	HOUSATONIC	12	1120	1567	8975	37, 79
CTYNED0501	CT NONAME THIRTEEN	NEW MILFORD	HOUSATONICRIVER	100	993	19981	91419	37,781
CTMNED0056	COLLINS CODAM	UNIONVILLE	FRMNGTN RV	20	359	951	5105	38,744
CTMNED0051	COLINS CO LK D	UNIONVILLE	FRMNGTN RV	20	360	954	5111	38,751
CTCNED0079	NEPAUG RES370	COLLINSVILLE	NEPAUG RIV	113	31	387	2073	39,752
CTANED0162	CTNONAME 36	JEWETT CITY	QUINEBAUG	13	650	1158	6537	41,608
CTONED0038	COLLINS COR3	UNIONVILLE	FARMINGTON	18	360	844	4563	42,977
CTCNED8518	COMPENSATING RIVER	NEW HARTFORD	EAST BRANCH FARMIN	45	61	465	2365	44,107
CTMNED0198	AMER TH DMW12	WILLIMANTIC	WILLAMANTC	20	226	728	3492	49,668
CTMNED0199	AMER TH DMW13	STILL RIVER	WILLAMANTC	20	225	727	3487	49,704
CTCNED9073	THOMASTON DAM	THOMASTON	NAUGTUCK R	28	97	415	2254	51,195
CTCNED8526	CARGILL FALLS	PUTNAM	FRENCH RIVER	28	111	494	2456	51,373
CTANED0213	CTNONAME 26	QUEBEC	QUINEBAUG	14	384	777	3994	53, 91
CTMNED0195	ROSENFLD DMPU1	PUTNAM	QUINEBAUGR	16	289	636	3352	53,576
CTCNED9065	WILLIMANTIC RE	MANSFIELD-WINHAM	NATCHAUG R	20	162	530	2520	58,981
CTMNED8512	BANTA PROJECT L1	LITCHFIELD	BANTAUS RIVER	50	40	344	1462	60,496
CTMNED0208	CTNONAME NINE	PUTNAM	QUINEBAUG	14	289	548	2912	61,263
CTCNED0192	W. THOMPSON LK	THOMPSON	QUINBAUG R	17	173	450	2333	62,583
CTANED8527	AMER TH DAM W14	WINDHAM	WILLAMANTIC RIVER	15	225	520	2550	65,165
CTANED8524	FALLS MILDM NO. 13	NORWICH	YANTIC	25	97	467	1970	65,599
CTCNED8511	SHEPAUG RESERVOIR	WARREN LITCHFIELD	SHEPAUG RIVER	62	38	382	1675	66,850
CTCNED8523	CT NONAME TEN	THOMPSON	FRENCH RIVER	21	111	376	1854	66,966
CTMNED0206	ROGERS CORP DA	KILLINGLY	QUINEBAUG	10	377	529	2758	74,510
CTCNED0173	MANSFLD-HOLLOW	WINDHAM,MANSFIELD	NATCHAUG R	15	159	390	1855	77,669
CTCNED8505	EASTON RESERVOIR	EASTON	MILL RIVER	120	12	230	778	80,696
CTANED8503	HAMMONASSET DAM	KILLINGWORTH	HAMMONASSET RIVER	60	20	251	1139	82,733
CTCNED8516	CT NONAME 31	ENFIELD	SCANTIC RIVER	25	66	328	1314	85,319
CTMNED8529	FARMINGTONF12	FARMINGTON	FARMINGTONRIVER	5	446	272	1629	69,804

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
MECNED5391	BRASSUA LKDAM	ROCKWOOD	BRASSUA LK	31	726	2266	13289	19. 30
MECNED5269	AZISCOHOS DAM	LINCOLN PLT	MAGALLOWAY	55	215	1559	8167	19,943
MECNED5297	TELDS LK OUTLT	PATTEN	TLS WEST L	42	270	1432	8148	21,210
MEANED5029	BARKER MILL LO	AUBURN	LT ANDROSG	51	350	6370	17063	21,343
MECNED5270	M DM UN WTR PR	ERROL	RCHDSN LKS	47	.09	12701	27700	23,269
MECNED5100	STANDISH DAM	GORHAM	EELWEIR CA	40	437	6238	16710	23,322
MEMNED5423	BURNHAM HYDRO	BURNHAM	SEBASTICKR	27	611	1293	7833	25,121
MEANED5476	MACHIAS R D 4	MACHIAS	MACHIAS R	28	450	4938	15146	25,932
MEANED5031	AUBURN DAM	AUBURN	LT ANDROSG	38	350	4746	12714	26,236
MEANED5316	GRAND LAKEDAM	MEDWAY	GR L MTGMN	25	470	1235	7466	26,665
MEANED5030	BARKER MILL UP	AUBURN	LT ANDROSG	36	335	4303	11528	28,286
MEONED5002	GRAHAM LAKE	ELLSWORTH	GRAHAM LAKE	23	452	1388	7717	28,419
MEANED5473	MACHIAS R LD 1	MACHIAS	MACHIAS R	20	455	1358	7483	30,530
MEANED5474	MACHIAS R D 2	MACHIAS	MACHIAS R	20	450	1366	7469	30,691
MEANED5330	MILO EL LGHT P	MILO	SEBEC R	22	371	1246	6465	32,631
MEONED5137	KENNEBGO R.	RANGLEY	KNNEBGO R	32	146	1339	5454	34,230
MECNED5395	SEBOOMOOK L DM	MILLINOCKET	SBMOOK LK	32	550	8266	17309	34,529
MEANED5509	LEDGEMERE DAM	LIMINGTON	LTLEOSPEFL	34	152	771	4067	34,737
MEANED5072	LTL MADAWASK D	CARIBOU	L MADWSK R	32	250	1089	4637	36,377
MEANED5312	LINCOLN PLPPPR	LOWELL	PASSADMKG	20	301	803	4468	39,201
MEMNED9074	AMRCNTSSUEMILL	GARDINER	CBBSSCNTST	37	220	4113	7884	39,964
MESNED5353	ANDERSON MLS D	SKOWHEGAN	KENNEBEC R	25	3950	14877	72719	42,415
MECNED5138	CNTL ME PWR CO	RANGELEY	KNNEBGO R	25	146	1123	4411	43. 84
MEANED5500	RT FOUR DM	ELIOT	SALM FLS R	24	252	928	4071	43,331
MEANED5271	RICH UPPER	ERROL	RAPID R.	21	405	4515	9847	44,128
MEANED5464	VANCEBORO DAM	VANCEBORO	ST CROIX R	13	435	797	4764	45,298
MECNED5397	CANADA LK FL D	CANADA FALLS	CNADA FL L	26	189	980	3840	45,624
MEMNED5304	CITY OF BANGOR	BANGOR	PENOBSCOT	17	7760	62647	147339	47,153
MEANED9075	RILEY INTER PA	JAY	ANDROSCOGN	25	2440	40410	70248	48. 43
MECNED5384	GRTMOOSELKDAM	HARTLAND	GRTMOOSELK	21	235	966	3825	49,501
MEMNED5001	OTIS	JAY	ANDROSCOGGIN RIVER	24	2490	39589	68820	50. 26
MEMNED5006	BANGOR HYDRO	OLD TOWN	STILLWATERRIVER	5	7606	18117	42475	50,745
MEANED8526	CENTRAL MAINE POWER CO.	SISTN TWP	KENNEBAGO LAKE	24	112	850	3290	51,283
MEMNED5337	DVR FXCFT TWD	DOVER FOXCROFT	PISCTOS R	16	352	892	3945	51,802
MEANED5334	MSHD L E OUTLT	THE FORKS	MOSEHEAD L	14	1240	8154	17073	55,445
MEANED5511	KEZAR FALLS	HIRAM	OSSIPEE RV	13	420	1827	5977	56,184
MECNED8539	LEIGHS MILL POND	SOUTH BERWICK	LEIGHS MILL POND	28	86	413	1995	56,556
MECNED8507	WEST GRANDLAKE OUTL ET	GRAND LAKESTREAM	BIG LAKE LOWER	14	240	441	2697	57,180
MEMNED5005	SWAN FALLS	FRYEBURG	SACO RIVER	10	516	717	4038	57,214
MEMNED5382	TOWNOFPITTSFLD	PITTSFIELD	SEBASTICKR	15	320	792	3432	57,365
MEMNED5388	GILMAN ST DAM	NEW PORTLAND	GILMAN ST	26	134	690	2581	57,479
MEONED5341	SEBEC	SEBEC	SEBEC LAKE	14	371	806	3600	57,717
MEONED5211	SENEBEC PDOUT	UNION	SENEBEC PD	35	116	2051	3932	57,881
MEANED5071	SHERIDAN DAM	ASHLAND	AROOSTOK R	6	1320	893	4432	58,325
MECNED8514	FLAGSTAFF LAKE DAM	T3 R4 BKPWKR	FLAGSTAFF LAKE	63	45	579	2129	61,322
MEANED5149	N BR DEAD R DM	EUSTIS	NBRDEAD R	16	236	610	2714	62,588
MEMNED5469	E MACHIAS DAM	EAST MACHIAS	E MACHIAS	12	286	539	2897	63,837
MEMNED5004	SNOW POND	OAKLAND	MESSALONSKEE RIVER	25	175	2211	4237	64,735

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
MEANED5340	TWN MILO MILOD	MILO	SEBEC RVR	10	407	495	2884	66,213
MEANED8504	T*IN FRANKFORT	FRANKFORT	NORTH BRANCH MARSH	19	130	501	2090	68,592
MEANED8542	ORANGE RV.DAM 2	WHITING	ORANGE RIVER	30	42	236	1227	69,119
MEMNED8528	ROUTE 1 DAM	KENNEBUNK	MOUSAM RIVER	18	125	361	1808	69,342
MEANED5328	DVR FXCT WT DT	DOVER FOXCROFT	PISCTQS P	12	352	669	2959	69,816
MEANED8513	WHITNEY BROOK DAM	T10 R3 WELLS	PRESQUE INLAND STR	27	90	418	1617	71,278
MEMNED5003	YORKTOWN PAPER MILL	GARDINER	COBBOSSEECONTE STR	18	220	2001	3835	78,967
MEANED8524	GUILFORD DAM	GUILFORD	PISCATAQUIS RIVER	12	253	511	2192	82,103
MEANED8505	SPEARS MILL DAM	WEST GARDINER	COOBOSEECONTEE STR	20	154	1556	2983	82,570
MEMNED8541	MACHIAS RV. DAM 3	MACHIAS	MACHIAS RIVER	5	450	347	1883	84,600
MEANED8517	OSSIPEE DAM TWO	PORTR PARF	OSSIPEE RIVER	7	420	983	3218	84,608
MEANED8512	MOXIE PONDDAM	FORKS PIT EAST MOX	MOXIE POND	21	89	345	1343	86, 26
MEDNED8538	CRAWFORD POND OUT 2	UNION	CRAWFORD POND	40	30	224	880	86,899
MEANED8500	DANFORTH	DANFORTH	BASKAHEGANSTREAM	9	205	262	1561	88,570
MEANED5032	ROGERS FIBER C	MINDT	LT ANDROSG	11	310	1216	3259	88,896
MEMNED8548	JOHNSON AUTO	BELFAST	PASAGASAKEAN RIVER	30	42	213	907	89,419

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
MAMNED0602	OLD GUARD LOCKS - CANAL	LOWELL	MERRIMACK RIVER	22	4000	24628	82045	23.123
MAANED1074	WACHUSETT RES	CLINTON	NASHUA RIV	114	108	1068	6517	23.150
MAMNED0603	NORTH CANAL LOCKS - CAN	LOWELL	MERRIMACK RIVER	30	4000	33584	111880	24.732
MAANED1093	TUPPER DAM	BLACKSTONE	BLACKSTONE	33	261	1278	6897	27. 75
MAMNED0601	SWAMP LOCKS - CANAL SYS	LOWELL	MERRIMACK RIVER	16	4000	17911	59669	30.624
MAANED0912	CHICOPEE FALLS	CHICOPEE	CHICOPEE	18	714	1355	8084	31. 20
MAMNED0906	CRESCENT MILLS	RUSSELL	WESTFIELD	25	329	1126	5936	33.169
MAMNED0787	RISINGDALEPD	GT. BARRINGTON	HOUSATONIC	22	280	836	4725	37.893
MADNED0600	HOOK BINDERY POND	MONTAGUE, ERVING	MILLER RIVER	20	390	1012	5354	38.140
MACNED0922	KNIGHTVILLE DM	HUNTINGTON	WSTFLD R	30	162	962	4051	40.928
MAMNED0786	GLENDALE	STOCKBRIDGE	HOUSATONIC	21	260	741	4188	41. 60
MACNED8523	SUDBURY RESERVOIR	SOUTHBORO	STONY BROOK	112	23	263	1470	45.728
MAMNED0946	WARE IND DAM	WARE	WARE RIVER	23	167	577	2866	51.615
MAANED8559	THE GORGE	RUSSELL	LITTLE RIVER	45	52	491	1903	56.153
MACNED8560	CONWAY POWERDAM	CONWAY	SOUTH RIVER	94	26	440	1751	56.599
MACNED8521	LANCASTER MILL POND	CLINTON	NASHUA RIVER	25	109	357	1995	57. 69
MACNED8553	TIGHE CARMODY RESERVOIR	SOUTH HAMPTON	MANHAN RIVER	125	14	228	1074	58.108
MAANED8564	COLUMBIA MILL	LEE	HOUSATONICRIVER	15	215	417	2416	61.662
MACNED8530	FISHERVILLE POND	GRAFTON	QUINSIGAMOND RIVER	20	133	423	2102	63.440
MACNED8516	SAXONVILLEDAM POND	FRAMINGHAM	SUDBURY	25	82	289	1554	66.403
MAMNED1090	FT DEVONS DAM	AYER	NASHUA	15	255	459	2316	67.386
MAANED8563	MILL DAM	LENOX	HOUSATONICRIVER	14	210	375	2186	67.462
MACNED8510	SOUTH WATUPPA POND	FALL RIVER	QUEQUECHANRIVER	47	30	269	1187	68.296
MACNED8536	QUINEBAUG RIVER POND	DUDLEY	QUINEBAUG RIVER	17	152	388	1928	71.285
MADNED8574	MACTAGGARTS POND	FITCHBURG	PHILLIPS BROOK	98	15	246	1058	72.342
MACNED8519	NEWTON UPPER FALLS	NEWTON, NEEDHAM	CHARLES RIVER	15	211	395	1957	74.183
MAMNED0884	MILLER FALDNE	MILLER FALLS	MILLER RIV	10	390	498	2655	75. 9
MAANED8568	ECLIPSE DAM UPPER	NORTH ADAMS	NORTH BRANCH HOUSI	32	39	268	1195	76.202
MAANED8505	WATERTOWN DAM	WATERTOWN	CHARLES RIVER	13	266	415	2094	77.230
MACNED8518	RESERVOIR DNE	FRAMINGHAM	SUDBURY RIVER	22	76	219	1224	77.551
MAMNED8524	BLACKSTONEDAM	BLACKSTONE	BLACKSTONERIVER	8	359	398	2219	80. 30
MACNED8548	LAKE ROHUNTA	ATHOL	WILLOW BROOK	72	20	262	1042	81.744
MACNED8554	GRANVILLE RESERVOIR	GRANVILLE	MUNN BROOK	100	6	118	530	85.479

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
NHCNED5724	LAKE FRANCIS	PITTSBURG	CONN R	100	165	2235	11999	20,556
NHMNED5881	GREGGS FALLS	GOFFSTOWN	PISCATAQUG	59	190	1668	7525	21,625
NHMNED5895	MINES FALLS	NASHUA	NASHUA R	35	412	1585	8014	24,726
NHONED0524	SALMON FALLS 2	MILTON	SALMON FALLS RIVER	99	116	973	5345	25,489
NHMNED6080	SALMNFALLSRIV2	ROLLINSFORD	SALMONFLLR	45	230	1469	6710	25,514
NHMNED0513	WINNIPESAUKE 3	FRANKLIN	WINNIPESAUKE RIVER	25	475	1295	7714	26,429
NHMNED0510	SUNCOOK RIVER 3	PEMBROKE	SUNCOOK RIVER	37	252	1338	6141	28,814
NHMNED0509	SUNCOOK RIVER	PEMBROKE	SUNCOOK RIVER	33	252	1215	5527	31,914
NHMNED0520	CONTOOCOOKRIVER	CONCORD	CONTOOCOOKRIVER	17	765	1277	7256	33, 73
NHMNED6028	LAMPREY RIVER	NEWMARKET	LAMPREY R	36	208	1253	5236	33,191
NHANED6081	SALMON FALLS R	ROLLINSFORD	SALMNFALLR	35	219	1283	5360	33,239
NHMNED5661	ASHUELOT RIV	HINSDALE	ASHUELOT R	21	412	1142	5990	34,283
NHMNED0517	WINNIPESAUKE 8	FRANKLIN	WINNIPESAUKE RIVER	18	487	1164	6341	35,100
NHMNED0504	ASHUELOT RIVER 1	HINSDALE	ASHUELOT RIVER	20	418	1085	5739	35,490
NHMNED0516	WINNIPESAUKE 6	FRANKLIN	WINNIPESAUKE RIVER	17	481	1180	6170	37,293
NHMNED6059	COCHECO RVFOU	DOVER	COCHECO RV	34	183	1041	4351	37,468
NHMNED0511	WINNIPESAUKE 1	FRANKLIN	WINNIPESAUKE RIVER	17	475	1166	6093	37,518
NHMNED0512	WINNIPESAUKE 2	FRANKLIN	WINNIPESAUKE RIVER	17	475	1166	6093	37,518
NHMNED0515	WINNIPESAUKE 5	FRANKLIN	WINNIPESAUKE RIVER	17	475	1166	6093	37,518
NHONED0523	STEELE POND	ANTRIM	NORTH BRANCH	84	60	939	3646	38,391
NHMNED5887	CONTOOCOOKR 2	HILLSBOROUGH	CONTOOCOOK	21	358	1055	5140	38,448
NHMNED6118	SUGAR RV ONE	CLAREMONT	SUGAR RV	28	250	928	4163	39,478
NHMNED0514	WINNIPESAUKE 4	FRANKLIN	WINNIPESAUKE RIVER	16	475	1121	5799	39,616
NHMNED5662	ASHUELOT RIV 2	HINSDALE	ASHUELOT R	18	406	964	5059	40, 33
NHCNED5980	HOPKINTON LK	HOPKINTON	CONTOOCOOK	18	426	973	4956	41, 59
NHMNED5896	JACKSON ML	NASHUA	NASHUA R	19	412	933	4536	42,781
NHMNED5818	AMMONOOSC RV 1	LISBON	AMMONOOSUC	20	288	607	3482	44,201
NHMNED5663	ASHUELOT RIV	HINSDALE	ASHUELOT R	16	393	857	4427	45,209
NHMNED0500	SAWMILL DAM	BERLIN	ANDROSCOGNRIVER	17	1370	13253	27753	46, 51
NHMNED5998	SEWALLS FALLS	CONCORD	MERRIMACK	12	2233	13732	32003	48,776
NHCNED5716	ERROL DAM	ERROL	ANDROSCOGN	15	1095	8720	19018	49,724
NHCNED5715	PONTOOK DAM	MILAN	ANDROSCOGN	14	1245	9254	20182	50,192
NHMNED0507	PISCATAQUOG 1	MANCHESTER	PISCATAQUOG RIVER	22	214	776	3315	50,376
NHMNED5827	AMMONOOSUCONE	BATH	AMMONOOSUC	16	327	532	3105	51, 59
NHMNED8519	SUGAR RIVER THREE	SUNAPEE	SUGAR RIVER	74	46	603	2329	51,187
NHMNED0525	SALMON FALLS RIVER	ROLLINSFORD	SALMON FALLS RIVER	20	232	723	3150	53, 35
NHMNED8528	NEW ENGLAND ELECTRICSYS	PITTSBURG	CONNECTICUT RIVER	27	82	706	2733	53,902
NHONED0506	GILES POND	FRANKLIN	SALMON BROOK	92	25	462	1811	55,308
NHMNED0508	SUNCOOK RIVER 1	PEMBROKE	SUNCOOK RIVER	18	252	699	3093	55,929
NHMNED5718	GROVETON PAPER	NORTHUMBERLAND	CONN R	12	1028	6549	14286	56,692
NHMNED5568	WINNIPSKE R 2	TILTON	WINNPSKEE	12	418	709	3743	56,785
NHMNED5656	ASHUELOT R	SWANZEY	ASHUELOT R	14	318	607	3134	57,778
NHMNED5987	CONTOCOK VALY	HENNIKER	CONTOCOK R	13	374	631	3195	60,294
NHMNED8512	SALMON FALLS FOUR	MILTON	SALMON FALLS RIVER	28	113	491	2010	60,757
NHMNED0518	CONTOOCOOKRIVER	CONCORD	CONTOOCOOKRIVER	8	765	720	3767	61,451
NHMNED8558	NEWFOUND RIVER ELEVEN	BRISTOL	PEMIGEWASSET RIVER	30	94	475	1888	61,538
NHMNED8570	WILDCAT BROOK	JACKSON	WILDCAT BROOK	112	21	1046	2348	61,775
NHMNED5565	AVERY DAM	LACONIA	WINNEPESAK	11	403	587	3204	62,754

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
NHANED5991	SUNCOOK RIV 6	SUNCOOK	SUNCOOK R	16	238	567	2567	63,787
NHANED6082	SALMON FALLS	SOMERSWORTH	SALMNFALLR	17	219	545	2451	63,981
NHMNED8567	SALMON FALLS 1	MILTON	SALMON FALLS	26	117	472	1932	64,129
NHMNED0521	CONTOOCOOKRIVER	HENNIKER	CONTOOCOOKRIVER	12	380	592	2997	64,824
NHMNED0519	CONTOOCOOKRIVER	CONCORD	CONTOOCOOKRIVER	7	769	610	3250	65,486
NHMNED5573	LUCHMERE	TILTON	WINNIPESAU	10	430	558	3070	66,164
NHANED5597	PEQUAWKT D	CONWAY	PEQUAWKT P	10	378	484	2836	66,563
NHMNED8517	MASCOMA RIVER SEVEN	LEBANON	MASCOMA RIVER	19	188	844	2716	67,844
NHMNED8542	MERRIMACK	MERRIMACK	SOUHEGAN RIVER	18	172	502	2164	67,936
NHMNED8540	SOUHEGAN RIVER	MILFORD	SOUHEGAN RIVER	20	138	478	1985	68,903
NHANED8556	MAD RIVER ONE	COMPTON	MAD RIVER	36	57	342	1376	69,901
NHONED5583	BERRY BAY DAM	FREEDOM	OSSIPEE R	15	357	3894	6929	70,180
NHMNED8530	UPPER AMMONOOSUC RIVER	NORTHUMBERLAND	UPPER AMMONOOSUC R	13	263	342	2011	70,337
NHMNED5820	LITTLETON 1	LITTLETON	AMMONOOSUC	15	230	457	2099	71,611
NHMNED8548	SUNCOOK RIVER TWO	PITTSFIELD	SUNCOOK RIVER	21	131	420	1736	73, 60
NHCNED5982	BLACKWATERDAM	WEBSTER	BLACKWATER	19	128	357	1661	73,336
NHMNED8509	ISINGLASS RIVER THREE	BARRINGTON	ISINGLASS RIVER	30	68	303	1275	74,387
NHMNED8574	CONTOOCOOKFOUR	BENNINGTON	CONTOOCOOKRIVER	15	192	451	1980	75,457
NHANED8553	SOUHEGAN RIVER ONE	WILTON	SOUHEGAN RIVER	20	97	320	1494	75,733
NHCNED8573	WALERLOOM POND	NORTH IPSWICH	SOUHEGAN RIVER	68	23	251	1109	76, 19
NHMNED8547	SUNCOOK RIVER THREE	PITTSFIELD	SUNCOOK RIVER	21	120	379	1579	76,466
NHMNED0522	CONTOOCOOKRIVER 2	HOPKINTON	CONTOOCOOKRIVER	10	388	456	2388	76,666
NHMNED0503	UPPER AMMONOOSUC RIVER	NORTHUMBERLAND	UPPER AMMONOOSUC R	11	263	329	1912	78,278
NHMNED0501	SUGAR RIVER 1	NEWPORT	SUGAR RIVER	30	60	292	1186	78,594
NHMNED8527	MINNEWAWA BROOK THREE	MARLBORO	MINNEWAWA BROOK	65	25	277	1129	80,596
NHONED8501	LAKEPORT DAM	LACONIA	WINNEPESAUKEE RIVE	11	363	1321	3711	81,401
NHMNED8505	SALMON FALLS ELEVEN	MILTON	SALMON FALLS RIVER	20	114	322	1390	81,535
NHANED8550	SPICKET RIVER WHEELERS	SALEM	SPICKETT RIVER	80	23	257	981	82,548
NHMNED8510	COCHECO RIVER ONE	ROCHESTER	COCHECO RIVER	25	77	269	1175	82,639
NHMNED8514	MASCOMA RIVER TEN	LEBANON	MASCOMA RIVER	15	194	687	2213	83,240
NHMNED8534	BLACKWATERRIVER ONE	SALISBURY	BLACKWATERRIVER	20	102	305	1300	85, 17
NHMNED8506	SALMON FALLS RIVER	ROCHESTER	SALMON FALLS	17	140	336	1451	85,346
NHMNED8521	MASCOMA RIVER EIGHT	LEBANON	MASCOMA RIVER	15	181	641	2064	86,227
NHMNED8546	CONTOOCOOKRIVER TWO	PETERBORO	CONTOOCOOKRIVER	21	68	214	1058	87,500
NHCNED8572	MONADNOCK MILL	BENNINGTON	CONTOOCOOKRIVER	13	192	378	1687	88,123
NHANED8515	SUGAR RIVER EIGHT	CLAREMONT	SUGAR RIVER	12	251	326	1625	88,366
NHMNED8536	SUNCOOK RIVER ONE	PITTSFIELD	SUNCOOK RIVER	17	131	304	1336	88,415
NHMNED8513	MASCOMA RIVER THREE	LEBANON	MASCOMA RIVER	16	150	567	1825	89,685

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
RIANE01767	WOONSOCK FALLS	WOONSOCKET	BLACKSTONE	29	369	1503	8329	25.572
RICNE01702	NATICK POND	WEST WARWICK	PAWTUXET R	30	179	736	4254	34.424
RIANE09059	MANVILLE	LINCOLN	BLACKSTONE	19	430	1132	6312	35.117
RIANE09060	PAWTKET LOWER	PAWTUKET	BLACKSTONE	17	478	1110	6232	37.151
RIANE01771	PRATT	ASHTON	BLACKSTONE	15	444	840	4614	45.644
RIMNE01772	VALLY FALLS PO	CENTRAL FALLS	BLACKSTONE	14	446	877	4860	46.434
RIMNE08515	RIVER POINT UPPER	WEST WARWICK	SOUTH BRANCH PAWTU	30	73	432	2250	50.913
RIANE01769	ALBION	LINCOLN	BLACKSTONE	13	433	801	4414	50.983
RIANE01773	CENT FALLSDAM	PAWTUKET	BLACKSTONE	11	477	727	4054	57.484
RIMNE08511	HARRIS MILL	COVENTRY	NORTH BRANCH PAWTU	25	101	465	2219	58.131
RIANE01770	ASHTON DAM	LINCOLN	BLCKSTNE	11	439	660	3704	59.931
RIMNE08519	ARTIC	WEST WARWICK	SOUTH BRANCH PAWTU	24	72	340	1781	63.475
RIANE08507	QUIDNICK UPPER	COVENTRY	SOUTH BRANCH PAWTU	22	68	300	1550	70.939
RIMNE08512	ARKWRIGHT MILL	COVENTRY	NORTH BRANCH PAWTU	20	100	364	1746	70.992
RIMNE08505	PAWTUCKET UPPER	PAWTUCKET	BLACKSTONERIVER	7	478	470	2604	74.210
RIDNE08510	CENTERVILLE POND	WEST WARWICK	SOUTH BRANCH PAWTU	20	72	289	1493	74.435
RICNE08504	HARRIS POND	WOONSOCKET	MILL RIVER	34	33	198	922	85.611
RIANE08506	EAST PROVIDENCE WATER W	EAST PROVIDENCE	SEEKONK RIVER	25	52	228	1054	87.783
RIMNE08500	POTTER HILL	WESTERLY, HOPKINTO	PAWCATUCK RIVER	8	240	312	1767	88.748

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
VTMNED6269	BOLTON FALLS	BOLTON	WINOUSKI R	50	850	3813	23131	12,102
VTANED6290	BALL MOUNTAIN	JAMAICA	WEST RIVER	44	172	1201	6930	23,192
VTMNED6222	BRADFORD	BRADFORD	WAITS RIV	50	153	698	4169	28,980
VTMNED6315	DEWEYS MILLS	N. HATLAND	OTTAUQUECH	40	207	1262	5788	29,340
VTMNED6156	TANNING COMP D	NORTH POWNAL	HOOSIC RIV	24	220	1023	5904	32,462
VTANED6295	W DUMMERSTON	DUMMERSTON	WEST RIVER	26	410	1285	6361	32,486
VTANED6220	UNION VILAG DM	NORWICH	OMPOMPAN R	49	126	615	3527	32,655
VTANED8519	NESHOBE	BRANDON	NESHORE RIVER	63	21	7975	21841	34,698
VTANED6187	AMERICAN WOOL	BURLINGTON	WINOOSKI	20	1100	6909	19638	34,998
VTCNED6294	SOMERSET RES	SEARSBURG	DEERFELD R	104	30	421	2357	36,777
VTMNED6317	EMERY MILLS	QUECHEE	OTTAUQUECH	30	205	971	4371	38,233
VTMNED6142	MIDDLEBURYUPP	MIDDLEBURY	OTTER CRK	15	630	952	5730	39,254
VTANED6291	TOWNSHEND DAM	TOWNSHEND	WEST RIVER	25	278	1119	4861	40,220
VTMNED6331	COMTU FALLS	SPRINGFIELD	BLACKRIVER	30	191	946	4083	40,391
VTANED6332	GILMAN DAM	SPRINGFIELD	BLACKRIVER	30	191	946	4083	40,391
VTANED6313	NO HARTLAND DM	HARTLAND	OTTAUQUECH	27	220	894	4165	40,621
VTMNED8531	NEEDHAMS MILL	BENSON	HUBBARDT RIVER	19	22	855	4581	41,982
VTMNED6318	HAMPSON	HARTLAND	OTTAUQUECH	25	225	796	3796	43,733
VTMNED6279	MONETOWN EIGHT	MIDDLESEX	MAD RIVER	34	130	793	3344	44, 53
VTMNED9014	MONTPELR FOUR	MONTPELIER	WINOOSKI R	25	201	736	3475	46,145
VTMNED8529	MANCHESTERCENTER	MANCHESTER	METTAWEE RIVER	19	18	700	3748	46,650
VTMNED6500	EAST HIGHGATE	HIGHGATE	MISSISQUOIRIVER	11	810	950	5656	47,352
VTMNED8509	BOLTONVILLE DAM	NEWBURY	WELLS RIVER	30	94	481	1924	62,480
VTMNED8522	DANIELS MILL	MONTPELIER	NORTH BRANCH	35	70	538	1967	62,535
VTANED6314	NO SPRNGFELD D	NORTH SPRINGFIELD	BLACK RIV	20	158	495	2241	63,765
VTCNED8502	SLACK	SPRINGFIELD	BLACK RIVER	18	190	486	2270	65,946
VTMNED6199	SWANTON DAM	SWANTON	MISSISQU R	10	847	2795	7343	68,652
VTMNED8514	NORTH TROYDAM	TROY	MISSISQUOIRIVER	16	137	277	1651	72,218
VTCNED8505	MILL POND	WINDSOR	MILL BROOK	40	43	333	1279	72,683
VTCNED8501	DEWEYS MILLS POND	HARTFORD	OTTAUQUECHRIVER	15	207	406	2016	72,946
VTMNED8525	RIPLEY MILLS	RUTLAND	OTTER CREEK	10	307	339	2056	79,477
VTCNED8515	HARDWICK LAKE	HARDWICK	LAMOILLE RIVER	20	118	365	1545	80,431
VTANED8510	VERMONT TISSUE	BENNINGTON	WALLOOMSACRIVER	16	95	196	1205	84,403
VTMNED6177	EAST RYGATE	EAST RYGATE	CONN RIVER	8	2215	14981	21707	85, 10
VTMNED8512	MONTPELIERTHREE	MONTPELIER	WINOOSKI RIVER	8	438	309	1770	88,148
VTONED8523	NORTHFIELDMILL	NORTHFIELD	DOG RIVER	25	62	267	1112	89,484

NUMBER OF SITES SATISFYING CONSTRAINTS = 274 (NEW ENGLAND)

COMMAND AND CONSTRAINTS END

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
NYCNC80054	GLEN PARK MILL B	GLEN PARK	BLACK RIVER	50	1902	5545	46593	7.9677
NYCNC80045	GLEN PARK MILL A SITE	GLEN PARK	BLACK RIVER	50	1878	5475	46005	8. 9
NYCNC80046	GLEN PARK MILL C	WATERTOWN	BLACK RIVER	50	1876	5469	45956	8. 37
NYONC80049	FELTS MILLS DEVEL DAM	TOWN OF BLACK RIVE	BLACK RIVER	44	1851	6315	49931	8.4604
NYANAN0181	FORT EDWARD	FORT MILLER	HUDSON	38	2815	19072	89709	12.771
NYCNC80155	CARRY FALLS DEVELOPMENT	STARK	RAQUETTE RIVER	75	877	8029	56573	13.117
NYCNC80022	CHASM POWER CO DAM	BRAYTON HOLLOW	CHATEUGAY RIVER	280	118	2159	17408	13.816
NYCNC80088	MOUNT MORRIS	VILLAGE OFMOUNT MO	GENESEE RIVER	114	1070	2668	19825	15.744
NYANAN0145	ASHOKON DAM	OLIVE BRIDGE	ESOPUS CREEK	252	257	19663	56620	18.506
NYANAN0190	WATERFORD		HUDSON RIVER	14	4620	5660	38994	19.153
NYANAN0174	WATERFORD		HUDSON R	14	4570	5711	39022	19.322
NYMNC80069	LYONSDALE DAM		MOOSE RIVER	37	426	1933	11821	19.929
NYCNAP0017	CANNONSVILLE DAM	VILLAGE OFDEPOSIT	W BR DELAWARE RIVE	145	453	19009	56071	20.630
NYANAN0177	STILLWATER	SCHAGHTICOKE	HUDSON RIVER	14	3760	5804	36077	21.266
NYMNC80048	GREAT BENDDAM	GREAT BEND	BLACK RIVER	16	1836	3607	24200	21.290
NYANAN0059	ALICE FALLS	AUSABLE CHASMA	AUSABLE RIVER	48	469	6604	19218	22. 60
NYNNC80068	PHILADELPHIA #2		INDIAN RIVER	50	229	1546	8753	22.876
NYANAN0098	KYSER LAKEDAM	INGHAM MILLS	EAST CANADA CREEK	116	278	15599	47227	23.714
NYBNC80029	CHATEAUGAYMILL		CHATEAUGAYRIVER	150	114	1227	9752	23.765
NYONAN0137	NO NAME #15	CLOTHRER HOLLOW	UPPER HUDSON	36	2760	43672	106193	24.121
NYCNC80050	WEST END DAM	HERRINGS	BLACK RIVER	14	1800	2474	18155	24.445
NYANAN0067	CLINTONVILLE	CLINTONVILLE	AUSABLE RIVER	40	447	5013	15179	24.511
NYANAN0069	KETTLE MOUNTAIN	BOREAS RIVER	HUDSON	30	641	6390	21257	24.542
NYBNAN0136	CONKLINGVILLE DAM	HADLEY ANDLAKE LUZ	SACANDAGA RIVER	80	1055	33731	103664	25. 90
NYCNAN0045	HIGH FALLDAM	MOFFITSVILLE	SARANAC RIVER	47	495	7392	19513	25.941
NYMNC80051	TANNERY ISLAND DAM	HERRINGS	BLACK RIVER	13	1797	2141	16096	26. 2
NYCNAN0112	NO NAME #66	WALDEN	WALLKILL RIVER	36	556	5802	16700	26.126
NYANAN0139	CONKLINGVILLE DAM \EJ W	HADLEY	SACANDAGA	35	1044	14097	35655	26.138
NYPNC80182	BEEBE LAKEDAM	CAYUGA HEIGHTS	FALL CREEK	143	120	982	6324	26.289
NYMNC80169	POTSDAM		RAQUETTE RIVER	9	1031	1000	11493	26.971
NYANAN0175	STILLWATER	SCHAGTICOKE	HUDSON	9	3782	3753	23328	27.345
NYANAN0164	NEW CROTONRESERVOIR DAM	CORTLAND	CROTON	131	375	16837	40833	27.682
NYCNC80161	JACKSON FALLS		GRASS RIVER	30	329	1319	7453	27.809
NYANAN0147	MERRIMAM DAM	LACKAWACK	RONDOUT CREEK	175	95	7294	23357	28.725
NYCNAN0068	CHERRY PATCH	LAKE PLACID	WEST BR. AUSABLE R	70	177	1029	5906	28.973
NYCNC80036	STILLWATERRESERVOIR DAM	MOSHIER FALLS	BEAVER RIVER	30	178	1013	6162	29.410
NYCNAP0016	PEPACTON (DOWNSVILLE)	DOWNSVILLE	E BR DELAWARE	180	371	21870	39529	29.708
NYCNAN0070	CHAIN LAKES	HOFFHEISTER	CEDAR RIVER	90	160	6815	20545	29.774
NYDNAN0151	GARDINER	GARDINER	WALL KILL RIVER	38	711	11245	24669	30. 25
NYCNAN0155	SCHROON RIVER PULP +PAP	WARRENSBURGH	SCHROON RIVER	24	554	4599	14691	30.908
NYANC80090	NEW YORK STATE BARGECAN	ROCHESTER	GENESEE RIVER	14	2460	2813	15562	31. 77
NYANC80075	BEAVER FALLS DS	BEAVER FALLS	BEAVER RIVER	20	324	1057	7069	31.574
NYDNAN0054	TREEDWELLSMILL DAM		SARANAC RIVER	27	596	4512	13661	31.581
NYDNAN0105	DELTA DAM	ROME	MOHAWK RIVER	100	140	3884	18964	32. 61
NYDNAN0072	TICONDEROGA NO 3	TICONDEROGA	TICONDEROGA CREEK	134	183	6827	20406	32.244
NYCNC80047	NYNONAME 23	WATERTOWN	BLACK RIVER	9	1876	1837	12964	32.687
NYDNAN0119	CROTON FALLS DAM	CROTON FALLS	WEST CROTON RIVER	112	168	4565	14552	32.839

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
NYDNAN0077	PECKS LAKEDAM	WM. BARCLAY PARSON	PECK CREEK	40	18	5794	12641	32.995
NYCNAN0160	TROUT BROOK	POTTERSVILLE	TROUT BROOK	83	91	2847	10198	33.577
NYANAN0109	N Y NO NAME-45	PARADISE	NEVERSINK RIVER	40	302	4439	10372	33.614
NYONAN0104	WILMURT	WILMURT	WEST CANADA CREEK	100	226	14129	32788	33.639
NY4NAN0095	PROSPECT		WEST CANADA CREEK	138	375	21459	69129	35.159
NYMNCB0131	OSWEGATCHIE DAM	OGDENSBURG	OSWEGATCHIE RIVER	11	1580	1772	11257	35.604
NYDNAN0126	HOOSIC FALLS		HOOSIC	30	339	4393	11139	36.800
NYCNAP0031	NEVERSINK RESERVOIR DAM	NEVERSINK	NEVERSINK	170	93	3311	9394	37. 37
NYCNAN0154	CANTINE	BIG INDIAN	ESOPUS CREEK	38	175	3763	8934	37. 68
NYANAN0092	PISECO LAKE	PISECO	WEST BR SACANDAGA	32	149	2129	7113	37.107
NYDNAN0086	CAIRO	CAIRO	CATSKILL CREEK	40	227	4812	9902	37.201
NYDNAN0071	J J ROGERSDAM	AUSABLE FORKS	AUSABLE RIVER	92	400	15867	33296	37.420
NYANAN0066	UNDERWOOD		SARANAC	22	599	4571	12718	37.724
NYDNAN0073	WADHAM NO 1		BOUQUET RIVER	48	134	2043	5394	40.759
NYDNAN0078	IRVING POND DAM	WHEELERVILLE	TR TO CANADA LAKE	27	23	4800	10831	41. 35
NYANAN0058	GROVEVILLEMILLS	BEACON	FISHKILL CREEK	32	270	2255	6696	41.233
NYDNAN0088	INDIAN LAKE STONE DAM	INDIAN LAKE TOWN	INDIAN RIVER	41	8	1890	5345	41.778
NYDNAN0194	FENIMORE DAM		HUDSON	80	2810	98808	240261	42.567
NYCNAB0031	EAST SIDNEY	UNADILLA	DELDOUT CR	50	102	1698	4491	43. 45
NYYRCB0046	BROWNVILLEDAM	BROWNVILLE	BLACK RIVER	29	1913	16116	65785	49.801
NYCNAB0029	WHITNEY POINT	VILLAGE OFWHITNEY	OTSELIC RIVER	28	255	1954	5254	50.911

NUMBER OF SITES SATISFYING CONSTRAINTS = 68 (NEW YORK)

COMMAND AND CONSTRAINTS END

EXISTING HYDROPOWER DAMS

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
CTGNED8007	HULLS BRIDGE	KENT	HOUSATONICRIVER	15	781	0	0	0
CTLNED8005	CANDLEWOODLAKE-ROCK Y R	NEW MILFORD	CANDLEWOODLAKE	200	40	0	0	0
CTGNED8003	CT NO NAME12-SCOTLA ND	WINDHAM	SHETUCKET RIVER	26	420	0	0	0
CTGNED8009	CT NONAME 50	LISBON, PRESTON	QUINEBAUG RIVER	25	744	0	0	0
CTINED8006	SHEPAUG DAM	SOUTHBURY,NEWTOWN	LAKE LILLINONAH	139	1392	0	0	0
CTINED8001	STEVENSON	MONROE,OXFORD	LAKE ZOAR	72	1541	0	0	0
CTGNED8013	CONE POND	ANSONIA	NAUGATUCK RIVER	30	300	233	2981	6.9093
CTGNED8008	GREAT FALLS \FALLS VILL	CANAAN, SALISBURY	HOUSATONICRIVER \H	30	632	2858	-18675	7.4516
CTGNED8004	TAFTVILLE	NORWICH, LISBON	SHETUCKET RIVER	26	511	788	7012	8.6843
CTGNED8012	ENFIELD DAM-CANAL SYSTE	ENFIELD	CONN. RIVER	10	9661	753	8556	13.887
CTGNED8011	OCCUM DAM	SPRAGUE	SHETUCKET RIVER	12	465	270	1545	24.754
CTGNED8010	ROBERTSVILLE DAM	COLEBROOK	STILL RIVER	15	47	329	-812	57. 6
CTGNED8002	RAINBOW POND	WINDSOR	FARMINGTONRIVER	60	582	2568	6140	57.701

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
MEGNED8009	BANGOR HYDRO-UNION RIVE	ELLSWORTH	UNION RIVER	60	460	0	0	0
MEGNED8039	BANGOR HYDRO - HOWLAND	HOWLAND	PISCATAQUIS RIVER	21	1500	0	0	0
MEGNED805R	BANGOR HYDRO	EDDINGTON,VEAZIE	PENOBSCOT RIVER	27	7730	0	0	0
MEGNED8026	BAR MILLS	BUXTON, HOLLIS	SACO RIVER	22	1595	0	0	0
MEGNED8010	EDWARDS MANUFACTURING C	AUGUSTA	KENNEBEC	27	5550	0	0	0
MEGNED8034	GORHAM FIVE	GORHAM, WINDHAM	PRESUMPSCOT RIVER	39	440	0	0	0
MEINED8057	GORHAM FOUR	GORHAM, WINDHAM	DUNDEE POND	36	443	0	0	0
MEGNED8054	GORHAM ONE	GORHAM, WINDHAM	PRESUMPSCOT RIVER	16	503	0	0	0
MEGNED8056	GORHAM THREE	GORHAM, WINDHAM	PRESUMPSCOT RIVER	24	503	0	0	0
MEGNED8055	GORHAM TWO	GORHAM, WINDHAM	PRESUMPSCOT RIVER	12	503	0	0	0
MEGNED8045	GREAT WORKS	BRADLEY	GREAT WORKS STREAM	17	44	0	0	0
MEGNED8029	HIRAM FALLS	HIRAM, BALDWIN	SACO RIVER	78	832	0	0	0
MEGNED8004	JAY	JAY	ANDROSCOGGIN RIVER	14	2490	0	0	0
MEGNED8032	KELLYLAND	BAILEYVILLE	GRAND FALLS	49	1320	0	0	0
MEGNED8005	LIVERMORE	LIVERMORE	ANDROSCOGGIN RIVER	31	2662	0	0	0
MEGNED8069	LOWER WILSON POND DAM	GREENVILLE	LOWER WILSON POND	14	40	0	0	0
MEGNED8038	MATTASEUNKERN	WOODVILLE,MATTAWAM	PENOBSCOT RIVER	39	3355	0	0	0
MEGNED8049	MECHANIC FALLS	MECHANIC FALLS	LITTLE ANDROSCOGGI	12	251	0	0	0
MEGNED8030	MILLTOWN	CALAIS	ST. CROIX RIVER	25	1790	0	0	0
MEGNED8051	MILSTAR MANUFACTURING	WATERVILLE, WINSLO	KENNEBEC RIVER	36	4270	0	0	0
MEGNED8021	OAKLAND	OAKLAND	MESSALONSKEE RIVER	69	205	0	0	0
MEINED8063	OLD FALLS POND DAM	KENNEBUNK	OLD FALLS POND	25	110	0	0	0
MEGNED8008	THIRD FALLS	RUMFORD	ANDROSCOGGIN	78	2090	0	0	0
MEGNED8013	WESTON	SKOWHEGAN	KENNEBEC RIVER	38	3950	0	0	0
MEGNED8046	LEWISTON CANAL	LEWISTON, AUBURN	ANDROSCOGGIN RIVER	54	2900	1876	44553	1.1723
MEGNED8006	OTIS	LIVERMORE	ANDROSCOGGIN RIVER	24	2490	532	24028	1.2597
MEGNED8031	WOODLAND	BAILEYVILLE	ST. CROIX RIVER	48	1350	1239	31219	1.2926
MEINED8044	RIPOGENUS DAM	T3R11-WELS	CHESUNCOOKLAKE	192	1332	9840	112254	1.8738
MEGNED8011	SCOTT PAPER COMPANY	WATERVILLE, WINSLO	KENNEBEC	29	4270	503	9735	2. 995
MEGNED8059	DIAMOND INTERNATIONAL	OLD TOWN, NEWBURY	PENOBSCOT RIVER	17	7380	752	27271	2.4262
MEGNED8037	STANFORD DAM	HOWLAND, ENFIELD	PENOBSCOT RIVER	20	6680	558	9132	3.1607
MEGNED8014	ABENAKI \LOWER'	ANSON, MADISON	KENNEBEC RIVER	48	3230	724	-7788	3.3363
MEGNED8019	UNION GAS	WATERVILLE	MESSALONSKEE STREA	39	205	161	2592	3.6741
MEGNED8002	DEER RIPS	LEWISTON, AUBURN	ANDROSCOGGIN RIVER	56	2900	1982	37636	3.6804
MEGNED8053	WESTBROOK DAM TWO	WESTBROOK	PRESUMPSCOT RIVER	28	551	155	2895	4.1412
MEGNE08015	ANSON \UPPER'	ANSON, MADISON	KENNEBEC RIVER	25	3230	881	15697	4.5834
MEGNED8066	SACO REALITY CO.	SACO	SACO RIVER	35	1700	625	9386	4.8205
MEINED8017	WYMAN	MOSCOW, PLEASANT R	WYMAN LAKE	143	2625	4809	21999	5.5193
MEGNE08035	BANGOR HYDRO - ORONO	ORONO	STILLWATERRIVER	28	7710	4711	43616	6. 497
MEGNED8022	FORT HALIFAX	WINSLOW	SEBASTICOOK RIVER	25	975	390	4694	6.3601
MEGNE08036	BANGOR HYDRO - STILLWAT	ORONO	STILLWATERRIVER	20	7710	3080	30112	6.4235
MEGNED8060	BANGOR HYDRO	MILFORD, OLD TOWN	PENOBSCOT RIVER	25	7380	1702	18460	7.4826
MEINED8033	SQUAPAN LAKE	MASARDIS	SQUAPAN LAKE	30	69	542	-4803	8. 230
MEGNED8062	MAX MILLER+ CO.	LISBON	ANDROSCOGGIN RIVER	10	3370	447	6816	8.3394
MEGNED8024	CATARACT STATION	BIDFORD, SACO	SACO RIVER	40	1700	1354	12653	8.4352
MEGNED8020	RICE RIPS	OAKLAND	MESSALONSKEE STREA	50	205	529	5168	8.7443
MEGNE08001	BRUNSWICK	BRUNSWICK,TOPSHAM	ANDROSCOGGIN RIVER	17	3470	885	9289	9.2719
MEGNE08061	CENTRAL MAINE POWER CO.	TOPSHAM	ANDROSCOGGIN RIVER	20	3430	547	5246	9.7463

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
MEGNED8048	PEJEPSCOT PAPER CO.	BRUNSWICK,TOPSHAM	ANDROSCOGGIN RIVER	23	3420	537	3576	10,843
MEGNED8068	DOVER-FOXCROFT ONE	FOXCROFT	PISCATAQUIS RIVER	22	352	636	5274	10,856
MEGNED8067	CARIBOU DAM	CARIBOU	AROOSTOOK RIVER	15	1931	347	3480	11,654
MEINED8043	NORTH TWIN	T3-INDIAN PURCHASE	CHESUNCOOKLAKE	37	1864	4167	13495	11,925
MEGNED8027	WEST BUXTON	BUXTON, HOLLIS	SACO RIVER	28	1572	2827	14520	12,293
MEGNED8028	BONNY EAGLE	HOLLIS, STANDISH	SACO RIVER	37	1563	4856	16664	13,285
MEGNED8040	ROCKABEMA-MEDWAY	MEDWAY	WEST BRANCH PENOBS	24	2100	1346	-3684	15, 40
MEGNED8047	CABOT MANUFACTURING CO.	BRUNSWICK,TOPSHAM	ANDROSCOGGIN RIVER	38	3410	1952	5154	16,170
MEGNED8016	WILLIAMS STATION	EMBDEN, SOLON	KENNEBEC RIVER	45	2740	3198	9436	16,281
MEGNED8065	AUTOMATIC CMP	WATERVILLE	MESSALONSKEE STREA	26	205	307	1508	18,107
MEGNED8023	SANDY RIVER	NORRIDGEWOCK, STAR	SANDY RIVER	17	619	331	1995	21,138
MEINED8018	HAMOS	T1R6	INDIAN POND	149	1382	30783	26292	29,773
MEGNED8050	GREAT NORTHERN PAPERCO.	MADISON, ANSON	KENNEBEC RIVER	18	3230	1523	5526	32,636
MEGNED8003	GULF ISLAND	LEWISTON, AUBURN	ANDROSCOGGIN RIVER	56	2860	7904	20044	35,750
MEGNED8012	SHAWMUT	BENTON, FAIRFIELD	KENNEBEC RIVER	27	4250	525	-670	39,312
MEGNED8007	MIDDLE	RUMFORD	ANDROSCOGGIN	97	2090	8013	23861	47,757
MEGNED8041	EAST MILLINOCKET-MILL T	EAST MILLINOCKET	WEST BRANCH PENOBS	29	2086	3477	3254	52,435
MEGNED8025	SKELTON STATION	BUXTON, DAYTON	SACO RIVER	76	1640	9575	20811	59,459
MEINED8064	ESTES LAKEDAM	ALFRED	ESTES LAKE	36	106	288	-122	184,76
MEINED8042	DOLBY	EAST MILLINOCKET	DOLBY POND	54	2080	6704	-1280	186, 0
MEGNED8052	MESSALONSKEE TWO	OAKLAND	MESSALONSKEE STREA	67	175	1892	505	308,70

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
MALNED8014	REAR SWAMPPUMPED ST ORA	ROWE	DEERFIELD RIVER	730	2	0	0	0
MAINED800A	COHHLE MOUNTAIN RESERVO	RUSSELL	LITTLE RIVER	456	49	0	0	0
MAGNED8013	DEERFIELD FIVE	ROWE, MUNROE	DEERFIELD RIVER	40	237	0	0	0
MAGNED8015	DEERFIELD THREE FOREBAY	SHELBURNE,BUCKLAND	DEERFIELD RIVER	68	445	0	0	0
MAGNED8022	DEERFIELD FOUR	BUCKLAND, CHARLEMO	DEERFIELD RIVER	68	442	0	0	0
MAGNED8021	FIFE	FLORIDA, ROWE	DEERFIELD RIVER	120	250	0	0	0
MAGNED801H	GARDINER FALLS STATION	BUCKLAND	DEERFIELD RIVER	39	445	0	0	0
MAGNED8028	GOOSE POND	TYRINGHAM	GOOSE PONDBRANCH	20	4	0	0	0
MAGNED8002	MUNGERVILLE	CHICOPEE	CHICOPEE RIVER	15	718	0	0	0
MAGNED8019	NEW ENGLAND POWER CO. T	SHELBURNE,CONWAY	DEERFIELD RIVER	64	445	0	0	0
MALNED8001	NORTHFIELDMT. PUMPE D S	ERVING	NORTHFIELDBROOK	1005	1	0	0	0
MAGNED8010	OAKDALE	WEST BOYLSTON	QUINEPOXETRIVER	135	33	0	0	0
MAGNED8026	OLEARY DAM-CANAL SYSTE	LAWRENCE	MERRIMACK RIVER	34	4680	0	0	0
MAGNED8024	PAWTUCKET-CANAL SYSTEM	LOWELL	MERRIMACK RIVER	40	4000	906	41952	0.72263
MAGNED8023	TURNER FALLS-CANAL SYST	MONTAGUE, GILL	CONNECTICUT RIVER	75	7862	4528	137948	1.7382
MAGNED8007	STRATMORE PAPER	RUSSELL	WESTFIELD RIVER	50	336	391	5986	3. 215
MAGNED8006	WEST SPRINGFIELD 3	WEST SPRINGFIELD,	WESTFIELD RIVER	32	506	229	5110	3.2658
MAINED8009	QUABBIN RESERVOIR	BELCHERTOWN, WARE	SWIFT RIVER	155	186	165	3752	3.8219
MAGNED8025	HOLYOKE DAM-CANAL SYSTE	HOLYOKE, SOUTH HAD	CONNECTICUT RIVER	52	8309	1122	13615	4.2639
MAGNED8005	INDIAN ORCHARD	SPRINGFIELD, LUDLO	CHICOPEE RIVER	35	689	783	5352	5.4789
MAGNED8027	WESTFIELD RIVER PAPER	RUSSELL	WESTFIELD RIVER	25	331	132	2264	5.6661
MAGNED8004	LUDLOW MANUF. ASSOCIATI	LUDLOW, WILBRAHAM	CHICOPEE RIVER	51	677	1184	6445	6.9782
MAGNED8017	DEERFIELD THREE	BUCKLAND	DEERFIELD RIVER	39	445	1135	-6400	8.1947
MAGNED8003	WESTERN MAELECTRIC	LUDLOW, WILBRAHAM	CHICOPEE RIVER	44	687	2343	9911	9.1293
MAINED8020	PEPPEREL PAPER COMPANY	PEPPERELL	NASHUA RIVER	28	433	468	2062	17.830
MAGNED8016	GARDINER FALLS	SHELBURNE,BUCKLAND	DEERFIELD RIVER	22	445	1718	-4297	22.722
MAGNED8011	COSGROVE \WACHUSETT AQU	CLINTON	NASHUA RIVER	96	108	1316	1027	94.778
MAGNED8012	SHERMAN	ROWE, MUNROE	DEERFIELD RIVER	80	236	3019	824	322. 8

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY C[illegible] (MILLS/K[illegible]
NHGNED8004	ANDROSCOGGIN TWO	GORHAM	ANDROSCOGGIN RIVER	31	1431	0	0	0
NHGNED8003	CASCADES	GORHAM	ANDROSCOGGIN RIVER	46	1380	0	0	0
NHGNED8021	CONTOOCOOKRIVER 4	JAFFREY	CONTOOCOOKRIVER	8	2	0	0	0
NHGNED8001	CROSS POWER	BERLIN	ANDROSCOGGIN RIVER	21	1350	0	0	0
NHGNED8008	GARVIN FALLS	BOW	MERRIMACK RIVER	33	2340	0	0	0
NHGNED8005	LEAD MINE BRIDGE	SHELBURNE	ANDROSCOGGIN RIVER	18	1494	0	0	0
NHGNED8007	SAWMILL	BERLIN	ANDROSCOGGIN RIVER	17	1370	0	0	0
NHGNED8002	RIVERSIDE	BERLIN	ANDROSCOGGIN RIVER	66	1371	123	3994	1.5323
NHGNED8019	SUGAR RIVER TEN	CLAREMONT	SUGAR RIVER	33	270	111	2770	4.2080
NHGNED8017	N E POWER 2	MONROE	CONN. RIVER	30	2200	1261	14463	4.4504
NHGNED8016	ANDROSCOGNONE	GORHAM	ANDROSCOGNRIVER	41	1384	1879	17918	4.5014
NHGNED8022	CONTOOCOOK3	BENNINGTON	CONTOOCOOKRIVER	25	192	111	2252	4.5960
NHGNED8006	J. BRODIE SMITH	BERLIN	ANDROSCOGGIN RIVER	87	1372	2490	20935	5.9377
NHGNED8018	SUGAR RIVER THREE	CLAREMONT	SUGAR RIVER	26	250	160	2055	7.3644
NHGNED8014	EASTMAN FALLS	FRANKLIN	PEMIGEWASSET RIVER	27	1013	1892	7147	10.474
NHGNED8012	HOOKSETT	HOOKSETT	MERRIMACK RIVER	15	2807	939	8126	12. 25
NHGNED8011	AMOSKEAG	MANCHESTER	MERRIMACK RIVER	46	2840	7762	25486	12.171
NHINED8015	JACKMAN RESERVOIR	HILLSBOROUGH	JACKMAN RESERVOIR	176	66	524	2427	15.371
NHGNED8013	AYERS ISLAND	BRISTOL	PEMIGEWASSET RIVER	80	746	3957	15727	19.979
NHGNED8009	FIFTEEN MILE FALLS	LITTLETON	CONNECTICUT RIVER	159	1600	74677	60651	25.231
NHGNED8020	GOODRICH FALLS	BARTLETT	ELLIS RIVER	68	53	508	1260	35.566
NHGNED8010	COMERFORD	MONROE	CONNECTICUT RIVER	179	1635	107028	51527	39.788

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
RI1NED0001	GAINER MEMORIAL DAM	SCITUATE	NORTH BRANCH PAWTU	86	92	0	0	0

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
VTGNED8001	CANAAN	CANAAN	CONNECTICUT RIVER	35	377	0	0	0
VTGNED8041	GAGE	ST. JOHNSBURY	PASSUMPSICRIVER	22	415	0	0	0
VTGNED8022	GLEN	RUTLAND	EAST CREEK	173	44	0	0	0
VTGNED8027	MOLLYS FALLS	MARSHFIELD	MOLLYS BROOK	328	20	0	0	0
VTGNED8012	MORRISVILLE	MORRISTOWN	LAMOILLE RIVER	52	225	0	0	0
VTGNED8010	PETERSON FALLS	MILTON	LAMOILLE RIVER	60	700	0	0	0
VTGNED8019	PROCTOR	PROCTOR	OTTER CREEK	120	363	0	0	0
VTGNED8021	SALISBURY	SALISBURY	LEICESTER RIVER	160	22	0	0	0
VTGNED8007	SHELDON SPRINGS	SHELDON	MISSISQUOI	79	806	201	9763	1.9572
VTGNED8016	VERGENNES NINE	VERGENNES	OTTER CREEK	35	873	299	7270	2.5210
VTGNED8002	GILMAN	LUNENBURG	CONNECTICUT RIVER	27	1538	1042	14110	3. 520
VTGNED8008	CLARKS FALLS	MILTON	LAMOILLE RIVER	44	690	910	8535	3.9935
VTGNED8011	CADYS FALLS	MORRISTOWN	LAMOILLE RIVER	40	250	243	3753	4.1355
VTGNED8037	CARVERS FALLS	WEST HAVEN	POULTNEY RIVER	155	185	382	6204	5. 784
VTGNED8015	HUNTINGTONFALLS	NEWHAVEN, WEYBRIDG	OTTER CREEK	175	753	1022	11201	7.3752
VTGNED8003	WILDER	HARTFORD	CONNECTICUT RIVER	51	3375	16259	97058	8.3176
VTGNED8017	WEYBRIDGE	WEYBRIDGE	OTTER CREEK	31	755	1135	5626	8.4564
VTGNED8018	MIDDLEBURYLOWER	MIDDLEBURY, WEYBRI	OTTER CREEK	28	630	762	6372	8.5264
VTGNED8013	FAIRFAX FALLS	FAIRFAX	LAMOILLE RIVER	85	529	1086	9873	8.5602
VTGNED8042	PASSUMPSIC	BARNET	PASSUMPSICRIVER	22	424	76	885	8.8414
VTGNED8040	WOLCOTT DAM	WOLCOTT	LAMOILLE RIVER	56	130	349	2337	9.3537
VTGNED8039	BAKERS FALLS	TROY	MISSISQUOIRIVER	28	97	148	1521	9.5805
VTGNED8032	NEWPORT TWO	NEWPORT	CLYDE RIVER	55	140	522	2714	9.9587
VTGNED8005	VERNON	VERNON	CONNECTICUT RIVER	36	6266	15805	146499	10.278
VTGNED8025	GORGE EIGHTEEN	SOUTH BURLINGTON,	WINOOSKI RIVER	34	1080	2689	10857	10.507
VTGNED8026	MIDDLESEX TWO	MIDDLESEX,MORETOWN	WINOOSKI RIVER	52	531	738	2442	11.647
VTGNED8009	MILTON FALLS	MILTON	LAMOILLE RIVER	95	690	2624	11826	12. 44
VTGNED8038	ENOSBURG FALLS 2	ENOSBURG	MISSISQUOIRIVER	23	596	465	3567	12.550
VTGNED8006	HIGHGATE FALLS	HIGHGATE	MISSISQUOIRIVER	62	820	3937	18675	13.274
VTGNED8043	LUMBER LAKE	CHARLESTON	CLYDE RIVER	57	108	290	1379	13.316
VTGNED8035	SEARSBURG	SEARSBURG	DEERFIELD RIVER	232	98	461	-2389	13.892
VTGNED8004	BELLOWS FALLS	ROCKINGHAM	CONNECTICUT RIVER	63	5414	17429	55367	17.339
VTGNED8033	PENSIONER POND	CHARLESTON	CLYDE RIVER	70	108	641	3533	17.858
VTGNED8031	NEWPORT	NEWPORT	CLYDE RIVER	140	140	1403	5637	19. 95
VTGNED8034	CAVENDISH	CAVENDISH	BLACK RIVER	120	82	270	1068	21.820
VTINED8036	HARRIMAN	WHITTINGHAM	DEERFIELD RIVER	390	184	5241	3754	25.194
VTGNED8014	BELDENS	NEWHAVEN, WEYBRIDG	OTTER CREEK	41	365	1044	2245	27. 38
VTGNED8024	GORGE NINETEEN	ESSEX, WILLISTON	WINOOSKI RIVER	69	1040	3560	10876	31.777
VTGNED8044	TAFTSVILLEDAM	WOODSTOCK	OTTAUQUECHEE RIVER	19	190	257	664	49.791
VTGNED8029	GREAT FALLS	LYNDON	PASSUMPSICRIVER	61	210	823	757	123.49
VTGNED8030	WEST DANVILLE	DANVILLE	JOES BROOK	180	18	574	174	277.75
VTINED8020	SILVER LAKE	LEICESTER	EAST CREEK	9	676	908	-313	325.43
VTGNED8023	PITTSFORD	CHITTENDEN	EAST CREEK	481	17	3070	-278	708.68
VTINED802A	WATERBURY RESERVOIR	WATERBURY	LITTLE RIVER	148	109	2759	-163	1116.0

NUMBER OF SITES SATISFYING CONSTRAINTS = 177 (NEW ENGLAND)

COMMAND AND CONSTRAINTS END

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
NYJNCB0128	ALLEN FALLS DEVEL DAM	ALLEN FALLS	WEST BRANCH ST REG	221	200	0	0	0
NYHNCB0078	BEAVER FALLS US	BEAVER FALLS	BEAVER RIVER	30	373	0	0	0
NYGNCB0062	BEEBEE ISLAND	WATERTOWN	BLACK RIVER	34	1876	0	0	0
NYJNCB0038	BELFORT	CROGHAN	BEAVER RIVER	48	252	0	0	0
NYJNCB0117	BENNETT BRIDGE	BENNETT BRIDGE	SALMON RIVER	284	101	0	0	0
NYHNAN0144	BLENHEIM GILBOA LOWER	NORTH BLENHEIM	SCHOHARIE CREEK	95	314	0	0	0
NYGNCB0065	CARTHAGE PAPER MAKERS D		BLACK RIVER	8	1806	0	0	0
NYHNCB0021	CHASM FALLS POWER DAM	TITUSVILLE	SALMON RIVER	266	126	0	0	0
NYHNCB0059	DEFERIET	DEFERIET	BLACK RIVER	47	1817	0	0	0
NYHNCB0144	EAST NORFOLK	NORFOLK	RAQUETTE RIVER	32	1063	0	0	0
NYJNCB0043	EFFLEY FALLS	BELFORT	BEAVER RIVER	54	249	0	0	0
NYGNAN0075	FRANKLIN FALLS DAM	FRANKLIN FALLS	SARANAC	54	291	0	0	0
NYGNAN0140	GRAHAMSVILLE		RONDOUT AQUEDUCT	17	239	0	0	0
NYGNCB0142	HEWITTVILLE	NORWOOD	RAQUETTE RIVER	18	1036	0	0	0
NYJNCB0077	HIGH FALLS	CROGHAN	BEAVER RIVER	95	267	0	0	0
NYJNCB0141	HIGLEY	COLTON	RAQUETTE RIVER	46	979	0	0	0
NYHNCB0160	KEUKA HYDRO		KEUKA LAKE	380	45	0	0	0
NYJNCB0019	MACOMB	NONE	SALMON RIVER	53	183	0	0	0
NYGNCB0123	MINETTO	OSWEGO	OSWEGO RIVER	17	5092	0	0	0
NYINCB0139	MOSES SAUNDERS	ROOSEVELTOWN	ST LAWRENCE RIVER	83	300000	0	0	0
NYJNCB0133	NEWTON FALLS-UPPER	NEWTON FALLS	OSWEGATCHIE RIVER	48	165	0	0	0
NYINCB0143	NORWOOD	NORWOOD	RAQUETTE RIVER	21	1045	0	0	0
NYHNCB0129	PARISHVILLE DEVELOPMENT	PARISHVILLE	W BR ST REGIS RIVE	143	177	0	0	0
NYJNCB0170	PIERCEFIELD		RAQUETTE RIVER	35	722	0	0	0
NYJNCB0152	RAINBOW FALLS	SOUTH COLTON	RAQUETTE RIVER	102	929	0	0	0
NYGNAN0127	SCHAGHTICOKE		HOOSIC	148	635	D	0	0
NYGNAN0038	SCHOOL ST		MOHAWK RIVER	96	3456	0	0	0
NYJNCB0042	SOFT MAPLE	BELFORT	BEAVER RIVER	126	240	0	0	0
NYJNCB0150	SOUTH COLTON DEVELOPMEN	SOUTH COLTON	RAQUETTE RIVER	85	942	0	0	0
NYJNCB0154	STARK DEVELOPMENT	STARK	RAQUETTE RIVER	105	877	0	0	0
NYHNCB0091	STATION #5	ROCHESTER	GENEBEE RIVER	137	2460	0	0	0
NYGNAN0188	VICTORY MILLS	VICTORY MILLS	FISH CREEK	40	252	0	0	0
NYINCB0115	WATERPORT	THE BRIDGES	OAK ORCHARD CREEK	78	216	0	0	0
NYLNCB0097	ROBERT MOSES-NIAGARA		NIAGARA RIVER	314	263460	193717	-1158159	1.8738
NYGNAN0176	BAKERS FALLS	FORT EDWARD	HUDSON	58	2810	708	16901	2.761
NYJNCB0149	COLTON	COLTON	RAQUETTE RIVER	285	981	6464	57233	2.6952
NYHNCB0124	GRANBY	CANTON	OSWEGO RIVER	24	5018	972	14557	3.915
NYGNCB0118	VARICK	OSWEGO	OSWEGO RIVER	20	5097	879	14721	3.2883
NYINCB0125	SENECA FALLS	SENECA FALLS	SENECA RIVER	50	778	1143	12567	3.3236
NYGNCB0079	MILL NO 3		BLACK RIVER	69	871	741	17810	3.6380
NYGNAN0196	MIDDLE FALLS	GREENWICH	BATTEN KILL	55	436	222	3665	3.6568
NYGNCB0056	DEXTER	DEXTER	BLACK RIVER	12	1917	242	8200	3.7996
NYHNCB0172	EMERYVILLE		OSWEGATCHIE	32	650	219	4627	3.8254
NYHNCB0092	STATION #26	ROCHESTER	GENEBEE RIVER	25	2460	779	7978	4.3790
NYGNCB0081	MILL NO 5		MOOSE RIVER	50	426	477	5903	4.6327
NYGNCB0064	CROWN ZELLERBACH CORP D		BLACK RIVER	30	1806	559	9738	4.8003
NYJNCB0151	FIVE FALLSDEVELOPME NT	SOUTH COLTON	RAQUETTE RIVER	103	932	2364	12930	4.9942

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
NYHNC80145	NORFOLK	NORFOLK	RAQUETTE RIVER	42	1066	854	8536	5.2927
NYHNC80146	RAYMONDVILLE	RAYMONDVILLE	RAQUETTE RIVER	22	1077	239	4210	5.4753
NYJNC80148	HANNAWA	POTSDAM	RAQUETTE RIVER	81	993	1210	12954	5.8464
NYHNC80176	NATURAL DAM		OSWEGATCHIE RIVER	20	748	315	5586	6. 247
NYGNC80111	BALDWINSVILLE		SENECA RIVER	8	3139	73	2344	6. 248
NYGNC80066	DIAMOND ISLAND		BLACK RIVER	10	1875	415	9289	6.1045
NYGNC80120	LOWER FULTON DAM	FULTON	OSWEGO RIVER	17	5018	374	6886	6.1388
NYJNC80156	BROWNS FALLS	FINE	OSWEGATCHIE-EAST B	270	178	1861	7752	6.3153
NYGNC80016	SPRINGVILLE		CATTARAUGUS CREEK	30	220	83	1495	6.7053
NYHNC80060	KAMARGO	BLACK RIVER	BLACK RIVER	27	1855	1048	13183	6.7062
NYGNC80080	PORT LEYDEN		BLACK RIVER	21	407	157	2756	6.8659
NYINC80126	WATERLOO	WATERLOO	SENECA RIVER	17	708	257	3957	7.2171
NYHNC80174	HAILESBORO		OSWEGATCHIE RIVER	30	660	515	5834	7.3752
NYHNC80136	NEWTON FALLS-LOWER	NEWTON FALLS	OSWEGATCHIE RIVER	24	170	103	1606	7.6427
NYGNC80074	HARRISVILLE		W BR OSWEGATCHIE R	34	189	205	2747	7.8925
NYGNC80082	HILL 8		MOOSE RIVER	30	431	403	4111	8.3397
NYHNC80093	STATION "2	ROCHESTER	GENESSEE RIVER	91	2460	1888	13178	8.7127
NYINC80053	THERESA "1	THERESA	INDIAN RIVER	66	323	552	7308	8.7380
NYGNC80173	FOWLER		OSWEGATCHIE RIVER	22	660	174	2115	8.7966
NYGNC80057	WATERTOWN MUN MAIN DIVE	WATERTOWN TOWN	BLACK RIVER	27	1874	1054	9551	9. 727
NYGNC80076	DENLEY DAM	PORT LEYDEN	BLACK RIVER	22	398	201	2597	9.1729
NYGNAN0182	MOREAU	FORT EDWARD	HUDSON	66	2812	1500	12096	9.5341
NYJNC80037	TAYLORVILLE DAM	BELFORT	BEAVER RIVER	104	251	532	5171	9.8574
NYHNC80187	SUGAR ISLAND	POTSDAM	RAQUETTE RIVER	63	994	1703	15573	9.9093
NYINC80177	YALEVILLE		RAQUETTE RIVER	10	1040	250	3811	11.686
NYJNC80039	MOSHIER	BELFORT	BEAVER RIVER	213	182	1197	8534	11.960
NYGNC80119	HIGH DAM	OSWEGO	OSWEGO RIVER	21	5097	2562	11857	11.967
NYHNC80061	SEWALLS ISLAND	WATERTOWN	BLACK RIVER	17	1875	723	6451	12.628
NYJNC80153	BLAKE FALLS	SOUTH COLTON	RAQUETTE RIVER	68	907	1816	8712	12.705
NYGNAN0046	PLATTSBURG	PLATTSBURG	SARANAC	20	576	524	4709	13. 55
NYINC80114	GLENWOOD	RIDGEWAY	OAK ORCHARD CREEK	59	143	433	-1629	14.286
NYGNC80026	HOGANSBURG		ST REGIS RIVER	10	842	142	1681	15.105
NYJNC80041	EAGLE FALLS	BELFORT	BEAVER RIVER	136	224	1220	7186	15.271
NYHNC80127	DEXTER ELEC CORP DAM	CANTON	GRASS RIVER	75	335	470	3568	15.483
NYGNC80159	EEL WEIR	OGDENSBURG	OSWEGATCHIE RIVER	13	1590	1098	6129	15.803
NYGNC80132	HUEVELTON DAM	HUEVELTON	OSWEGATCHIE RIVER	15	995	532	4098	15.909
NYGNAN0148	STURGEON POOL	EDDYVILLE	WALLKILL	108	785	10179	18740	16.343
NYHNAN0180	PALMER FALLS	CORINTH	HUDSON	85	1664	20293	85510	17. 94
NYGNAN0102	DOLGEVILLE	DOLGEVILLE	EAST CANADA CREEK	51	261	6419	18399	18. 32
NYJNC80040	ELMER	BELFORT	BEAVER RIVER	37	250	283	1081	18.196
NYGNAN0055	VISCHER FERRY	VISCHER FERRY	MOHAWK RIVER	29	3400	11222	41017	18.345
NYGNAN0039	GREEN ISLAND		HUDSON RIVER	15	8100	11487	66262	18.997
NYGNQ80121	OSWEGO FALLS	FULTON	OSWEGO RIVER	16	5018	3872	21383	19.227
NYHNC80158	SOUTH EDWARDS	EDWARDS	OSWEGATCHIE	85	277	489	2097	20.630
NYGNAN0185	SOUTH GLENFALLS	GLENS FALLS	HUDSON	47	2807	52030	113215	21.390
NYGNC80055	BLACK RIVER POWER DAM	WATERTOWN	BLACK RIVER	34	1856	2049	8268	21.909

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (MW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST (MILLS/KWH)
NYGNCB0058	HERRINGS	HERRING	BLACK RIVER	19	1810	[illegible]	12187	22,643
NYGNAN0128	JOHNSONVILLE		MOOSIC	40	604	605[illegible]	14620	[illegible],681
NYGNCB0140	UNIONVILLE	NORWOOD	RAQUETTE RIVER	16	1037	18[illegible]	958	[illegible],428
NYHNAN0041	CADYVILLE CONCRETE DAM	WOODSMILLS	SARANAC	75	576	[illegible]	[illegible]944	23,747
NYGNAN0187	SCHUYLERVILLE		FISH CREEK	60	232	402	2098	24,403
NYGNAN0048	MILL C	MORRISVILLE	SARANAC	65	575	763	17497	24,663
NYGNAN0101	LITTLE FALLS		W. CANADA CREEK	19	375	1035	6327	25, 24
NYGNAN0198	GREENWICH		BATTENKILL	106	443	[illegible]	[illegible]841	25,4[illegible]
NYGNAN0042	PLATTSBURGNO 1	PLATTSBURG	SARANAC	43	597	[illegible]	17954	25, 73
NYGNAN0179	CURTIS		HUDSON	24	2755	1 570	42740	25,676
NYGNAN0049	KENT FALLS	SCHUYLER FALL	SARANAC	152	576	33431	39788	26,930
NYHNAN0186	STEWARTS BRIDGE	HADLEY	SACANDAGA	100	1054	8526	9343	27,416
NYGNAN0050	PLATTSBURGNO 2	PLATTSBURG	SARANAC	27	596	3662	8661	28,889
NYGNCB0087	STATION 160	PIFFARD	GENESEE	20	1071	266	1438	29,272
NYGNAN0184	FEEDER DAM	FERNWOOD	HUDSON	23	2700	12099	32804	29,676
NYGNAN0178	MECHANICVILLE		HUDSON	18	4500	13582	43053	30,934
NYHNAN0082	INGHAMS	INGHAMS MILLS	EAST CANADA CREEK	125	276	20570	24603	32,136
NYHNAN0191	CRESCENT	COHOES	MOHAWK RIVER	28	3456	25998	52370	33,821
NYHNAN0172	STUYVESANTFALLS	STUYVESANTFALLS	KINDERHOOKCREEK	103	325	5102	12406	36, 7
NYGNCB0175	PLANT NO 7		OSWEGATCHIE	15	660	1239	7142	38,937
NYHNAN0159	GLEN FALLS		HUDSON	23	2807	10216	18209	42,598
NYHNAN0197	CARVERS FALLS		POULTNEY	115	186	3148	6518	42,764
NYGNAN0183	MECHANICVILLE	WATERFORD	HUDSON	17	4572	16347	36813	42,977
NYGNAN0063	ROME DAM	AUSABLE FORKS	WEST BRANCH AUSABL	32	237	968	1507	50,492
NYGNAN0056	WAPPINGERSFALLS	WAPPINGERSFALLS	WAPPINGER CREEK	85	197	3071	5478	50,649
NYGNAN0149	DASHVILLE	RIFTON	WALLKILL	34	766	5617	5564	61,973
NYGNAN0099	TRENTON FALLS	TRENTON FALLS	WEST CANADA CREEK	266	376	71248	18638	63,503
NYINCB0157	FLAT ROCK	FINE	OSWEGATCHIE-EAST B	58	262	2042	2052	64,118
NYGNAN0158	SPIER FALLS	HUDSON FALLS	HUDSON RIVER	84	2779	41307	25361	79,515
NYHNAN0173	BEARDSLEE FALLS	ST. JOHNSVILLE	EAST CANADA CREEK	158	288	16953	4005	92, 34
NYINAN0156	SHERMAN ISLAND DAM	GLENS FALLS	HUDSON RIVER	60	2806	42447	28934	95,637
NYINAN0100	PROSPECT DAM	PROSPECT	WEST CANADA CREEK	137	375	21636	2562	207,85
NYINCB0116	SALMON R LOWER RES DAM	ALTMAR	SALMON RIVER	65	198	2849	719	501,20

NUMBER OF SITES SATISFYING CONSTRAINTS = 126 (NEW YORK)

COMMAND AND CONSTRAINTS END

UNDEVELOPED DAMSITES

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
ME6NED7071	PIERCE POND	CARATUNK	PIERCE POND STREAM	690	585	220000	459000	9.3403
ME6NED7012	WHETSTONE	T3R7	EAST BRANCH PENOBS	162	957	53733	161427	13.723
ME6NED7016	FOXHOLE RIPS	T4R14	WEST BRANCH PENOBS	33	750	3973	21892	15. 23
ME6NED7010	WEBSTER LAKE	T6R10	WEBSTER BROOK	55	288	1930	11219	16.176
ME6NED7022	BANCROFT	BANCROFT	MATTAWAMKEAG R.	30	920	3718	19942	16.753
ME6NED7028	GRAND FALLS	GRAND FALLS	PASSADUMKEAG RIVER	51	200	1450	8801	18.452
ME6NED7013	BEAR RAPIDS	T3R7	EAST BRANCH PENOBS	26	970	3593	18687	18.661
ME6NED7039	HOLER FALLS	ATTEAN, SR7	MOOSE RIVER	55	208	1811	8567	20.485
ME6NED7006	MASARDIS	MASARDIS	AROOSTOOK RIVER	85	601	9533	36145	21.876
ME6NED7060	BRYE	ROXBURY	SWIFT RIVER	115	120	1053	6412	22.678
ME6NED7019	DEBSCONEAG	T2R9	WEST BRANCH PENOBS	17	1580	3756	19754	22.744
ME6NED7011	POND PITCH	T5R8	EAST BRANCH PENOBS	80	620	17190	50818	23.612
ME6NED7008	HOLMES FALLS	NORTHFIELD	MACHIAS RIVER	72	300	8710	27271	25.986
ME6NED7043	STEEPSIDE	T1R5, WESTFORKS	KENNEBEC RIVER	136	1570	111348	221229	28.186
ME6NED7009	MARIAVILLEFALLS	MARIAVILLE	WEST BRANCH UNION	38	150	1212	4955	33.589
ME6NED7001	BAILEY BROOK DEADWATER	T9R17	BAKER BRANCH OF ST	34	244	1083	4928	33.662
ME6NED7003	BIG BLACK RESERVOIR	T14,R14	BIG BLACK RIVER	66	539	10859	29962	33.957
ME6NED7015	LEDGE FALLS	MEDWAY	EAST BRANCH PENOBS	17	1100	6481	19114	35.799
ME6NED7014	MEADOW BROOK	T1R7	EAST BRANCH PENOBS	17	1100	6481	19092	35.840
ME6NED7041	MOOSE RIVER	T2R1	MOOSE RIVER	15	569	950	5321	40.641
ME6NED7020	PASSAMAGORMAC FALLS	T1R9	WEST BRANCH PENOBS	7	1590	1249	7325	41.593
ME6NED7049	SOUTH MADISON	MADISON	KENNEBEC RIVER	17	3240	22370	56121	43.886
ME6NED7080	DICKEY/LINCOLN SCHOOL L	ST.FRANCIS	ST. JOHN RIVER	64	4086	70000	263000	45. 0
ME6NED7079	DICKEY/LINCOLN SCHOOL L	ALLAGASH	ST. JOHN RIVER	295	2725	760000	1183000	45. 0
ME6NED7073	THE ARCHES	T3R11	WEST BRANCH PENOBS	77	1415	21674	92994	48.127
ME6NED7034	ABOVE FOXCROFT	SANGERVILLE, DOVER	PISCATAQUIS RIVER	17	350	943	4169	49.223
ME6NED7033	BASIN MILLS	BRADLEY, ORONO	PENOBSCOT RIVER	5	7710	18365	43057	50.752
ME6NED7027	NICATOUS FALLS	T3ND	NICATOUS STREAM	38	70	576	2337	50.887
ME6NED7030	SPENCER RAPIDS	GREENBUSH,ARGYLE	PENOBSCOT RIVER	4	7150	13625	31949	52. 20
ME6NED7035	ABOVE MILO	MILO	SEBIC RIVER	13	390	689	3809	52.841
ME6NED7066	HIGHLAND RIPS	BALDWIN, CORNISH	SACO RIVER	4	1310	707	4264	53.817
ME6NED7052	ABOVE PHILLIPS	PHILLIPS	SANDY RIVER	26	131	678	2621	56.125
ME6NED7053	MAPLEWOOD	STRONG	SANDY RIVER	20	190	732	2971	56.542
ME6NED7040	ATTEAN POND	T5P1	MOOSE RIVER	15	278	726	3284	57.532
ME6NE07031	MARSH ISLAND	BRADLEY	PENOBSCOT RIVER	13	7480	46325	108608	60.930
ME6NED7029	SAPONAC	GRAND FALLS	PASSADUMKEAG RIVER	13	272	443	2605	61.827
ME6NED7055	TAYLOR	NEW PORTLAND	CARRABASSETT RIVER	17	210	601	2627	62.733
ME6NED7046	THE FORKS	T1R4, THE FORKS	KENNEBEC RIVER	17	2470	6647	37208	65.348
ME6NED7038	SEBOEIS	SEBOEIS	SEBOEIS STREAM	17	138	323	1796	67.664
ME6NE07065	HIRAM SITENO.2	HIRAM	SACO RIVER	4	795	429	2597	68.343
ME6NE07051	PITTSFIELD	DETROIT, PITTSFIEL	SABASTICOOK RIVER	9	578	534	2904	68.358
ME6NED7021	PLEASANT LAKE	T4R3	EAST BR. MATTAWAMK	26	79	346	1363	78.646
ME6NED7058	PLEASANT RIVER	BETHEL	ANDROSCOGGIN R.	4	1670	4425	7693	79. 12
ME6NED7036	EBEEMEE LAKE	T5R9	EAST BR. PLEASANT	21	87	326	1410	79.737
ME6NE07078	COBSCOOK BAY TIDAL POWE	EASTPORT,LUBEC	COBSCOOK BAY	10	400	200000	660000	81.818
ME6NED7050	EAST MADISON	CORNVILLE	WEST BRANCH WESSER	30	49	271	1096	82.293
ME6NED7062	DIXFIELD	DIXFIELD, MEXICO	WEBB RIVER	17	125	405	1636	82.903
ME6NED7032	BRADFORD	ALTON	PUSHAW STREAM	17	94	293	1310	88.635

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
NH6NED7072	TILTON	FRANKLIN	WINNIPESAUKEE RIVE	92	482	20000	29600	46.304
NH6NED7018	THATCHER	NEWPORT	SOUTH BRANCH SUGAR	47	34	277	1135	70.718

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
VT6NED7042	BROCKWAY MILLS	ROCKINGHAM	WILLIAMS RIVER	111	101	852	5103	25,535
VT6NED7024	PIERMONT	FAIRLEE	CONN. RIVER	20	3104	19579	61939	26,470
VT6NED7033	PAWLET	PAWLET	METTAWEE RIVER	79	63	800	4647	29,526
VT6NED7023	CASSVILLE	BRADFORD	WAITS RIVER	140	138	4786	14989	29,705
VT6NED7011	F. ST. JOHNSBURY	ST. JOHNSBURY	MOOSE RIVER	77	117	863	4720	30,138
VT6NED7036	EAST CLARENDON	CLARENDON	MILL RIVER	57	66	622	3558	30,643
VT6NED7019	HUNTINGTONFALLS	WEYBRIDGE	OTTER CREEK	21	749	4706	14774	31,333
VT6NED7040	HAWKS MOUNTAIN	CAVENDISH	BLACK RIVER	162	111	6335	17117	32,301
VT6NED7038	WEST WOODSTOCK	WOODSTOCK	OTTAUQUECHEE RIVER	89	123	2483	8305	33,847
VT6NED7004	MILE 12	CONCORD	MOOSE RIVER	81	86	848	4128	33,931
VT6NED7018	NEW HAVEN MILLS	NEW HAVEN	NEW HAVEN RIVER	57	85	886	3718	34, 11
VT6NED7006	HUNTINGTON	RICHMOND	HUNTINGTONRIVER	85	60	729	3747	34, 14
VT6NED7003	STONE DAM	BLOOMFIELD	NULHEGAN RIVER	153	114	8728	20432	35,839
VT6NED7007	JOHNSON	JOHNSON	LAMOILLE RIVER	60	345	6278	18730	36,308
VT6NED7022	BOLTONVILLE #1	NEWBURY	WELLS RIVER	55	90	844	3396	36,999
VT6NED7005	BROWN RIVER	WESTFORD	BROWNS RIVER	43	75	787	3445	38,704
VT6NED7030	RANDOLPH	BETHEL	THIRD BRANCH	43	109	420	2556	39,584
VT6NED7010	LYNDON CENTER	LYNDON	MILLER RUN	55	52	416	2343	39,608
VT6NED7034	NORTH PAWLET	PAWLET	METTAWEE RIVER	55	74	812	3047	40,506
VT6NED7012	FISH HATCHERY	ST. JOHNSBURY	SLEEPERS RIVER	111	41	387	1864	44,259
VT6NED7017	E. MONTPELIER	E. MONTPELIER	WINOOSKI RIVER	26	183	736	3391	46,459
VT6NED7028	GAYSVILLE	STOCKBRIDGE	WHITE RIVER	94	226	16539	24372	47,672
VT6NED7002	JAY BRANCHRESERVOIR	JAY	JAY BRANCH	119	132	10808	18089	48,408
VT6NED7013	MILE 1	BARNET	JOES BROOK	85	57	703	2583	48,647
VT6NED7047	NO 10	SOMERSET	EAST BRANCH	68	40	655	2741	48,846
VT6NED7001	SHELDON RESERVOIR	SHELDON	BLACK CREEK	30	117	676	2865	49,244
VT6NED7043	RUNDY BROOK	ROCKINGHAM	SAXTONS RIVER	43	76	636	2414	50,503
VT6NED7035	WALLINGFORD	TINMOUTH	OTTER CREEK	40	96	536	2250	51,119
VT6NED7026	ROCHESTER	ROCHESTER	WHITE RIVER	43	75	490	2059	52,540
VT6NED7037	RIVERSIDE	BRIDGEWATER	OTTAUQUECHEE RIVER	60	38	360	2109	52,772
VT6NED7016	JOES BROOK	DANVILLE	JOES BROOK	85	49	663	2319	52,806
VT6NED7045	RAWSONVILLE	JAMAICA	WINDHALL RIVER	68	45	611	2286	56,757
VT6NED7014	MILE 2	BARNET	HOLLOW BROOK	57	47	426	1494	61,871
VT6NED7044	W. LONDONDERRY	LONDONDERRY	WEST RIVER	43	43	351	1351	69,140
VT6NED7041	REEDVILLE	CHESTER	MIDDLE BRANCH	57	27	271	1090	69,943
VT6NED7008	WILD BRANCH	WOLCOTT	WILD BRANCH	77	30	335	1258	74,112
VT6NED7025	COPPER FLAT	STRAFFORD	WEST BRANCH	51	39	306	1092	76,579
VT6NED7032	QUECHEE	HARTFORD	OTTAUQUECHEE RIVER	17	198	923	2661	79,165
VT6NED7039	LUDLOW	LUDLOW	BLACK RIVER	30	56	313	1223	80,776
VT6NED7027	WEST BR. WHITE RIVER	ROCHESTER	WEST BRANCH	60	44	383	1414	81,103
VT6NED7021	HANCOCK	HANCOCK	WHITE RIVER	43	30	150	744	85,782

NUMBER OF SITES SATISFYING CONSTRAINTS = 91 (NEW ENGLAND)

COMMAND AND CONSTRAINTS END

SITE ID NUMBER	PROJECT NAME	COMMUNITY	STREAM NAME	GROSS HEAD (FT)	DRAINAGE AREA (SQ. MI.)	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL ENERGY COST (MILLS/KWH)
NY4NCB0096	LOWER NIAGARA RIVER DEV		NIAGARA RIVER	80	263460	40813	3575235	9.4505
NY7NCB0001	PORTAGE		GENESEE RIVER	439	985	51[illegible]3	21[illegible]941	30,780
NY4NCB0073	MOOSE RIVER		MOOSE RIVER	140	368	20[illegible]0	67734	36,186
NY7NCB0084	FOWLERSVILLE		MOOSE RIVER	195	422	18157	31186	40,232
NY6NCB0101	FISH CREEK#1		EAST BRANCH FISH C	190	172	16678	49644	43,[illegible]15
NY5NCB0168	FORT JACKSON		E. BR. ST.REGIS RI	240	302	23746	72178	43,521
NY5NCB0167	NICHOLVILLE		E. BR. ST.REGIS	260	280	24[illegible]7	72985	45,933
NY6NCB0099	FISH CREEK#3		EAST BRANCH-FISH C	240	109	20288	44321	48,809
NY5NCB0165	MOOSEHEAD RAPIDS		RAQUETTE RIVER	85	784	11998	59627	50,868
NY6NCB0100	NO 2		EAST BRANCH FISH C	160	150	17879	40286	54,352
NY6NCB0102	HAWKINSVILLE		BLACK RIVER	139	265	19669	52376	125.17

NUMBER OF SITES SATISFYING CONSTRAINTS = 11 (NEW YORK)

COMMAND AND CONSTRAINTS END

Table 8-9

NPCC STUDY AREA

COMPUTER LISTING OF VIABLE HYDROELECTRIC DAMSITES - BY STATE

TABLE 8-9
NPCC Study Area
Computer Listing of Viable Hydroelectric Sites-By State

CONNECTICUT

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
CTCNED8505	EASTON RESERVOIR	FAIRFIELD	230	778	80.698	1504	1504	1504
CTCNED0012	S P SENIORDAM	FAIRFIELD	455	2450	36.789	1291	1291	1291
CTMNFD0051	COLINS CO LW D	HARTFORD	954	5111	38.751	1313	1313	1313
CTMNED0056	COLLINS CODAM	HARTFORD	951	5105	38.744	1312	1312	1312
CTONED0038	COLLINS COB3	HARTFORD	844	4563	42.977	1342	1342	1342
CTCNED8516	CT NONAME 31	HARTFORD	328	1314	83.319	1514	1514	1514
CTGNED8012	ENFIELD DAM-CANAL SYSTEM	HARTFORD	753	8556	13.887	1129	1129	1129
CTMNED8529	FARMINGTONF12	HARTFORD	272	1629	89.804	1538	1538	1538
CTCNED9064	HOGBACK DAM	HARTFORD	4353	14171	30. 59	1242	1242	1242
CTGNED8002	RAINBOW POND	HARTFORD	2568	6140	57.701	1410	1410	1410
CTMNED8512	BANTA PROJECT L1	LITCHFIELD	344	1462	60.496	1421	1421	1421
CTCNED0081	BARKHAMSTED RS	LITCHFIELD	750	4025	29.561	1236	1236	1236
CTCNED0071	COLEBRK RVLK	LITCHFIELD	848	5155	32.253	1257	1257	1257
CTCNED8518	COMPENSATING RIVER	LITCHFIELD	465	2365	44.107	1349	1349	1349
CTYNED0501	CT NONAME THIRTEEN	LITCHFIELD	19981	91419	37.781	1306	1306	1306
CTMNED0078	CTNONAME FORTN	LITCHFIELD	1567	8975	37. 79	1295	1295	1295
CTGNED8008	GREAT FALLS \FALLS VILLAGE'	LITCHFIELD	2858	-18675	7.4516	1068	1068	1068
CTCNED0079	NEPAUG RES370	LITCHFIELD	387	2073	39.752	1320	1320	1320
CTGNED8010	ROBERTSVILLE DAM	LITCHFIELD	329	-812	57. 6	1403	1403	1403
CTCNED8511	SHEPAUG RESERVOIR	LITCHFIELD	382	1675	66.850	1454	1454	1454
CTMNED0502	SPOONER DAM	LITCHFIELD	1425	8654	30.634	1245	1245	1245
CTCNED9073	THOMASTON DAM	LITCHFIELD	415	2254	51.195	1384	1384	1384
CTANED8503	HAMMONASSET DAM	MIDDLESEX	251	1139	82.733	1512	1512	1512
CTGNED8013	CONE POND	NEW HAVEN	233	2981	6.9093	1062	1062	1062
CTMNED0137	KINNEYTOWNDAM	NEW HAVEN	1275	6969	27.440	1222	1222	1222
CTONED0500	LAKE HOUSATONIC	NEW HAVEN	5743	34386	11.864	1110	1110	1110
CTCNED0128	RIMMON POND	NEW HAVEN	1275	6969	27.440	1223	1223	1223
CTANED0162	CTNONAME 36	NEW LONDON	1158	6537	41.608	1334	1334	1334
CTANED8524	FALLS MILDM NO. 13	NEW LONDON	467	1970	65.599	1448	1448	1448
CTGNED8011	OCCUM DAM	NEW LONDON	270	1545	24.754	1196	1196	1196
CTGNED8004	TAFTVILLE	NEW LONDON	788	7012	8.6843	1085	1085	1085
CTCNED0173	MANSFLD-HOLLOW	TOLLAND	390	1855	77.669	1495	1495	1495
CTCNED9065	WILLIMANTIC RE	TOLLAND	530	2520	58.981	1417	1417	1417
CTANED8527	AMER TH DAM W14	WINDHAM	520	2550	65.165	1446	1446	1446
CTMNED0198	AMER TH DMW12	WINDHAM	728	3492	49.668	1367	1367	1367
CTMNED0199	AMER TH DMW13	WINDHAM	727	3487	49.704	1368	1368	1368
CTCNED8526	CARGILL FALLS	WINDHAM	494	2456	51.373	1386	1386	1386
CTCNED8523	CT NONAME TEN	WINDHAM	376	1854	66.966	1455	1455	1455
CTMNED0208	CTNONAME NINE	WINDHAM	548	2912	61.263	1423	1423	1423
CTANED0213	CTNONAME 26	WINDHAM	777	3994	53. 91	1391	1391	1391

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
CTMNED0206	ROGERS CORP DA	WINDHAM	529	2758	74.510	1485	1485	1485
CTMNED0195	ROSENFLD DMPU1	WINDHAM	636	3352	53.576	1392	1392	1392
CTCNED0192	W. THOMPSON LK	WINDHAM	450	2333	62.583	1432	1432	1432

MAINE

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
MEANED5031	AUBURN DAM	ANDROSCOGGIN	4746	12714	26.236	1213	1213	1213
MEANED5029	BARKER MILL LO	ANDROSCOGGIN	6370	17063	21.343	1169	1169	1169
MEANED5030	BARKER MILL UP	ANDROSCOGGIN	4303	11528	28.286	1226	1226	1226
MEGNED8002	DFER RIPS	ANDROSCOGGIN	1982	37636	3.6804	1025	1025	1025
MEGNED8003	GULF ISLAND	ANDROSCOGGIN	7904	20044	35.750	1287	1287	1287
MEGNED8046	LEWISTON CANAL	ANDROSCOGGIN	1876	44553	1.1723	1001	1001	1001
MEGNED8062	MAX MILLER+ CO.	ANDROSCOGGIN	447	6816	8.3394	1078	1078	1078
MEGNED8006	OTIS	ANDROSCOGGIN	532	24028	1.2597	1002	1002	1002
MEANED5032	ROGERS FIBER C	ANDROSCOGGIN	1216	3259	88.896	1524	1524	1524
ME6NED7022	BANCROFT	AROOSTOOK	3718	19942	16.753	2005	2005	2005
ME6NED7003	BIG BLACK RESERVOIR	AROOSTOOK	10859	29962	33.957	2028	2028	2028
MEGNED8067	CARIBOU DAM	AROOSTOOK	347	3480	11.654	1108	1108	1108
ME6NED7079	DICKEY/LINCOLN SCHOOL LAKES-	AROOSTOOK	760000	1183000	45. 0	2048	2046	2046
ME6NED7080	DICKEY/LINCOLN SCHOOL LAKES-	AROOSTOOK	70000	263000	45. 0	2049	2047	2047
MEANED5072	LTL MADAWASK D	AROOSTOOK	1089	4637	36.377	1289	1289	1289
ME6NED7006	MASARDIS	AROOSTOOK	9533	36145	21.876	2009	2009	2009
ME6NED7021	PLEASANT LAKE	AROOSTOOK	346	1363	78.646	2090	2087	2087
MEANED5071	SHERIDAN DAM	AROOSTOOK	893	4432	58.325	1416	1416	1416
MEINED8033	SQUAPAN LAKE	AROOSTOOK	542	-4803	8. 230	1075	1075	1075
MEANED8513	WHITNEY BROOK DAM	AROOSTOOK	418	1617	71.278	1472	1472	1472
MEGNED8001	BRUNSWICK	CUMBERLAND	885	9289	9.2719	1094	1094	1094
MEGNED8047	CABOT MANUFACTURING CO.	CUMBERLAND	1952	5154	16.170	1140	1140	1140
ME6NED7066	HIGHLAND RIPS	CUMBERLAND	707	4264	53.817	2071	2068	2068
MECNED5100	STANDISH DAM	CUMBERLAND	6238	16710	23.322	1183	1183	1183
MEGNED8053	WESTBROOK DAM TWO	CUMBERLAND	155	2895	4.1412	1031	1031	1031
ME6NED7052	ABOVE PHILLIPS	FRANKLIN	678	2621	56.125	2073	2070	2070
MEANED8526	CENTRAL MAINE POWER CO.	FRANKLIN	850	3290	51.283	1385	1385	1385
MECNED5138	CNTL ME PWR CO	FRANKLIN	1123	4411	43. 84	1345	1345	1345
MEONED5137	KENNEBGO R.	FRANKLIN	1339	5454	34.230	1274	1274	1274
ME6NED7053	MAPLEWOOD	FRANKLIN	732	2971	56.542	2074	2071	2071
MEANED5149	N BR DEAD R DM	FRANKLIN	610	2714	62.588	1433	1433	1433
MEMNED5001	OTIS	FRANKLIN	39589	68820	50. 26	1372	1372	1372
MEANED9075	RILEY INTER PA	FRANKLIN	40410	70248	48. 43	1364	1364	1364
MEONED5002	GRAHAM LAKE	HANCOCK	1388	7717	28.419	1227	1227	1227
ME6NED7009	MARIAVILLEFALLS	HANCOCK	1212	4955	33.589	2024	2024	2024
MEMNED9074	AMRCNTSSUEMILL	KENNEBEC	4113	7884	39.964	1322	1322	1322
MEGNED8065	AUTOMATIC CMP	KENNEBEC	307	1508	18.107	1148	1148	1148
MEGNED8022	FORT HALIFAX	KENNEBEC	390	4694	6.3601	1057	1057	1057
MEGNED8052	MESSALONSKEE TWO	KENNEBEC	1892	505	308.70	2110	2107	2107
MEGNED8020	RICE RIPS	KENNEBEC	529	3168	8.7443	1088	1088	1088

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
MEGNED8011	SCOTT PAPER COMPANY	KENNEBEC	503	9735	2, 995	1010	1010	1010
MEGNED8012	SHAWMUT	KENNEBEC	525	-670	39,312	1317	1317	1317
MEMNED5004	SNOW POND	KENNEBEC	2211	4237	64,735	1444	1444	1444
MEANED8505	SPEARS MILL DAM	KENNEBEC	1398	2983	82,570	1510	1510	1510
MEGNED8019	UNION GAS	KENNEBEC	161	2592	3,6741	1024	1024	1024
MEMNED5003	YORKTOWN PAPER MILL	KENNEBEC	2001	3835	78,967	1498	1498	1498
MEONED8538	CRAWFORD POND OUT 2	KNOX	224	880	86,899	1525	1525	1525
MEONED5211	SENEBEC PDOUT	KNOX	2051	3932	57,881	1413	1413	1413
MECNED5269	AZISCOHOS DAM	OXFORD	1559	8167	19,943	1160	1160	1160
ME6NED7062	DIXFIELD	OXFORD	405	1636	82,903	2098	2095	2095
ME6NED7065	HIRAM SITENO.2	OXFORD	429	2597	68,343	2080	2080	2080
MECNED5270	M DM UN WTR PR	OXFORD	12701	27700	23,269	1182	1182	1182
MEGNED8007	MIDDLE	OXFORD	8013	23861	47,757	1363	1363	1363
ME6NED7058	PLEASANT RIVER	OXFORD	4425	7693	79, 12	2091	2088	2088
MEANED5271	RICH UPPER	OXFORD	4515	9847	44,128	1350	1350	1350
MEMNED5005	SWAN FALLS	OXFORD	717	4038	57,214	1406	1406	1406
ME6NED7060	BRYE	OXFORD	1053	6412	22,670	2010	2010	2010
MEGNED8035	BANGOR HYDRO - ORONO	PENOBSCOT	4711	43616	6, 497	1053	1053	1053
MEGNED8036	BANGOR HYORO - STILLWATER	PENOBSCOT	3080	30112	6,4235	1058	1058	1058
MEGNED8060	BANGOR HYORO	PENOBSCOT	1702	18460	7,4826	1069	1069	1069
MEMNED5006	BANGOR HYORO	PENOBSCOT	18117	42475	50,745	1378	1378	1378
ME6NED7033	BASIN MILLS	PENOBSCOT	18365	43057	50,752	2062	2060	2060
ME6NED7013	BEAR RAPIOS	PENOBSCOT	3593	18687	18,661	2007	2007	2007
ME6NED7032	BRADFORO	PENOBSCOT	293	1310	88,635	2100	2097	2097
MEMNED5304	CITY OF BANGOR	PENOBSCOT	62847	147339	47,153	1361	1361	1361
MEGNED8059	DIAMOND INTERNATIONAL	PENOBSCOT	752	27271	2,4262	1011	1011	1011
MEINED8042	DOLBY	PENOBSCOT	6704	-1280	186, 0	2107	2104	2104
MEGNED8041	EAST MILLINOCKET-MILL TWO	PENOBSCOT	3477	3254	52,435	1389	1389	1389
ME6NED7028	GRAND FALLS	PENOBSCOT	1450	8801	18,452	2006	2006	2006
MEANED5316	GRAND LAKEDAM	PENOBSCOT	1235	7466	26,665	1217	1217	1217
ME6NED7015	LEDGE FALLS	PENOBSCOT	6481	19114	35,799	2031	2031	2031
MEANED5312	LINCOLN PLPPPR	PENOBSCOT	803	4468	39,201	1315	1315	1315
ME6NED7031	MARSH ISLAND	PENOBSCOT	46325	108608	60,930	2077	2074	2074
ME6NED7014	MEADOW BROOK	PENOBSCOT	6481	19092	35,840	2033	2033	2033
MEINED8043	NORTH TWIN	PENOBSCOT	4167	13495	11,925	1111	1111	1111
ME6NED7011	POND PITCH	PENOBSCOT	17190	50818	23,612	2012	2012	2012
MEGNED8040	ROCKABEMA-MEDWAY	PENOBSCOT	1346	-3684	15, 40	1132	1132	1132
ME6NED7029	SAPONAC	PENOBSCOT	443	2605	61,827	2076	2075	2075
ME6NEO7038	SEBOEIS	PENOBSCOT	323	1796	67,664	2082	2079	2079
ME6NED7030	SPENCER RAPIDS	PENOBSCOT	13625	31949	52, 20	2066	2063	2063

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
MEGNED8037	STANFORD DAM	PENOBSCOT	558	9132	3.1607	1017	1017	1017
ME6NED7012	WHETSTONE	PENOBSCOT	53733	161427	13.723	2002	2002	2002
ME6NED7034	ABOVE FOXCROFT	PISCATAQUIS	943	4169	49.223	2059	2057	2057
ME6NED7035	ABOVE MILO	PISCATAQUIS	689	3809	52.841	2070	2067	2067
ME6NED7019	DEBSCONEAG	PISCATAQUIS	3756	19754	22.744	2011	2011	2011
MEGNED8068	DOVER-FOXCROFT ONE	PISCATAQUIS	636	5274	10.856	1106	1106	1106
MEMNED5337	DVR FXCFT TWO	PISCATAQUIS	892	3945	51.802	1388	1388	1388
MEANED5328	DVR FXCT WT DT	PISCATAQUIS	669	2959	69.816	1466	1466	1466
ME6NED7036	EBEEMEE LAKE	PISCATAQUIS	326	1410	79.737	2093	2090	2090
ME6NED7016	FOXHOLE RIPS	PISCATAQUIS	3973	21892	15. 23	2003	2003	2003
MEANED8524	GUILFORD DAM	PISCATAQUIS	511	2192	82.103	1508	1508	1508
MEANED5330	MILO EL LGHT P	PISCATAQUIS	1246	6465	32.631	1260	1260	1260
MEANED5334	MSMD L E OUTLT	PISCATAQUIS	8154	17073	55.445	1395	1395	1395
ME6NED7020	PASSAMAGORMAC FALLS	PISCATAQUIS	1249	7325	41.593	2043	2041	2041
MEINED8044	RIPOGENUS DAM	PISCATAQUIS	9840	112254	1.8738	1006	1006	1006
MEONED5341	SEBEC	PISCATAQUIS	806	3600	57.717	1411	1411	1411
MECNED5297	TELOS LK OUTLT	PISCATAQUIS	1432	8148	21.210	1166	1166	1166
ME6NED7073	THE ARCHES	PISCATAQUIS	21674	92994	48.127	2054	2052	2052
MEANED5340	TWN MILO MILOD	PISCATAQUIS	495	2884	66.213	1451	1451	1451
ME6NED7010	WEBSTER LAKE	PISCATAQUIS	1930	11219	16.176	2004	2004	2004
MEGNED8061	CENTRAL MAINE POWER CO.	SAGADAHOC	547	5246	9.7463	1098	1098	1098
MEGNED8048	PEJEPSCOT PAPER CO.	SAGADAHOC	537	3576	10.843	1105	1105	1105
MEGNED8014	ABENAKI \LOWER"	SOMERSET	724	-7788	3.3363	1021	1021	1021
MESNED5353	ANDERSON MLS D	SOMERSET	14877	72719	42.415	1337	1337	1337
MEGNED8015	ANSON \UPPER"	SOMERSET	881	15697	4.5834	1037	1037	1037
ME6NED7040	ATTEAN POND	SOMERSET	726	3284	57.532	2076	2073	2073
ME6NED7001	BAILEY BROOK DEADWATER	SOMERSET	1083	4928	33.662	2025	2025	2025
MECNED5391	BRASSUA LKDAM	SOMERSET	2266	13289	19. 30	1153	1153	1153
MECNED5397	CANADA LK FL D	SOMERSET	980	3840	45.624	1354	1354	1354
ME6NED7050	EAST MADISON	SOMERSET	271	1096	82.293	2097	2094	2094
MECNED8514	FLAGSTAFF LAKE DAM	SOMERSET	579	2129	61.322	1424	1424	1424
MEMNED5388	GILMAN ST DAM	SOMERSET	690	2581	57.479	1408	1408	1408
MEGNED8050	GREAT NORTHERN PAPERCO.	SOMERSET	1523	5526	32.636	1261	1261	1261
MECNED5384	GRTMOOSELKDAM	SOMERSET	966	3825	49.501	1366	1366	1366
MEINED8018	HAMOS	SOMERSET	30783	26292	29.773	1239	1239	1239
ME6NED7039	HOLER FALLS	SOMERSET	1811	8567	20.485	2008	2008	2008
ME6NED7041	MOOSE RIVER	SOMERSET	950	5321	40.641	2042	2040	2040
MEANED8512	MOXIE PONDDAM	SOMERSET	345	1343	86. 26	1523	1523	1523
ME6NED7071	PIERCE POND	SOMERSET	220000	459000	9.3403	2001	2001	2001
ME6NED7051	PITTSFIELD	SOMERSET	534	2904	66.358	2081	2081	2081

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
MEGNED8023	SANDY RIVER	SOMERSET	331	1995	21.138	1165	1165	1165
MECNED5395	SEBOOMOOK L OM	SOMERSET	8266	17309	34.529	1277	1277	1277
ME6NED7049	SOUTH MADISON	SOMERSET	22370	56121	43.886	2046	2044	2044
ME6NED7043	STEEPSIDE	SOMERSET	111348	221229	28.186	2016	2016	2016
ME6NED7055	TAYLOR	SOMERSET	601	2627	62.733	2080	2077	2077
ME6NED7046	THE FORKS	SOMERSET	6647	37208	65.348	2081	2078	2078
MEMNED5382	TOWNOFPITTSFLD	SOMERSET	792	3432	57.365	1407	1407	1407
MEGNED8016	WILLIAMS STATION	SOMERSET	3198	9436	16.281	1141	1141	1141
MEINED8017	WYMAN	SOMERSET	4809	21999	5.5193	1047	1047	1047
MEMNED5423	BURNHAM HYDRO	WALDO	1293	7833	25.121	1200	1200	1200
MEMNED8548	JOHNSON AUTO	WALDO	213	907	89.419	1535	1535	1535
MEANED8504	TWIN FRANKFORT	WALDO	501	2090	68.592	1461	1461	1461
ME6NED7078	COBSCOOK BAY TIDAL POWER PRO	WASHINGTON	200000	660000	81.818	2096	2093	2093
MEANED8500	DANFORTH	WASHINGTON	262	1561	88.570	1532	1532	1532
MEMNED5469	E MACHIAS DAM	WASHINGTON	539	2897	63.837	1440	1440	1440
ME6NED7008	HOLMES FALLS	WASHINGTON	8710	27271	25.986	2014	2014	2014
MEANED5473	MACHIAS R LD 1	WASHINGTON	1358	7483	30.530	1243	1243	1243
MEANED5474	MACHIAS R D 2	WASHINGTON	1366	7469	30.691	1246	1246	1246
MEANED5476	MACHIAS R D 4	WASHINGTON	4938	15146	25.932	1208	1208	1208
MEMNED8541	MACHIAS RV. DAM 3	WASHINGTON	347	1883	84.600	1516	1516	1516
ME6NED7027	NICATOUS FALLS	WASHINGTON	576	2337	50.887	2064	2061	2061
MEANED8542	ORANGE RV.DAM 2	WASHINGTON	236	1227	69.119	1464	1464	1464
MEANED5464	VANCEBORO DAM	WASHINGTON	797	4764	45.298	1353	1353	1353
MECNED8507	WEST GRANDLAKE OUTL ET	WASHINGTON	441	2697	57.180	1405	1405	1405
MEGNED8031	WOODLAND	WASHINGTON	1239	31219	1.2926	1003	1003	1003
MEGNED8028	BONNY EAGLE	YORK	4856	16664	13.285	1126	1126	1126
MEGNED8024	CATARACT STATION	YORK	1354	12653	8.4352	1080	1080	1080
MEINED8064	ESTES LAKEDAM	YORK	288	-122	184.76	2106	2103	2103
MEANED5511	KEZAR FALLS	YORK	1827	5977	56.184	1398	1398	1398
MEANED5509	LEDGEMERE DAM	YORK	771	4067	34.737	1279	1279	1279
MECNED8539	LEIGHS MILL POND	YORK	413	1995	56.556	1399	1399	1399
MEANED8517	OSSIPEE DAM TWO	YORK	983	3218	84.608	1517	1517	1517
MEMNED8528	ROUTE 1 DAM	YORK	361	1808	69.342	1465	1465	1465
MEANED5500	RT FOUR DM	YORK	928	4071	45.331	1346	1346	1346
MEGNED8066	SACO REALITY CO.	YORK	625	9386	4.8205	1041	1041	1041
MEGNED8025	SKELTON STATION	YORK	9575	20811	59.459	1418	1418	1418
MEGNED8027	WEST BUXTON	YORK	2827	14520	12.293	1118	1118	1118

MASSACHUSETTS

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
MAANED8564	COLUMBIA MILL	BERKSHIRE	417	2416	61.662	1427	1427	1427
MAANED8568	ECLIPSE DAM UPPER	BERKSHIRE	268	1195	76.202	1490	1490	1490
MAMNED0786	GLENDALE	BERKSHIRE	741	4188	41. 60	1332	1332	1332
MAANED8563	MILL DAM	BERKSHIRE	375	2186	67.462	1457	1457	1457
MAMNED0787	RISINGDALEPD	BERKSHIRE	836	4725	37.893	1307	1307	1307
MACNED8510	SOUTH WATUPPA POND	BRISTOL	269	1187	68.296	1460	1460	1460
MAONED0600	BOOK BINDERY POND	FRANKLIN	1012	5354	38.140	1308	1308	1308
MACNED8560	CONWAY POWERDAM	FRANKLIN	440	1751	56.599	1400	1400	1400
MAGNED8017	DEERFIELD THREE	FRANKLIN	1135	-6400	8.1947	1076	1076	1076
MAGNED8016	GARDINER FALLS	FRANKLIN	1718	-4297	22.722	1177	1177	1177
MAMNED0884	MILLER FALONE	FRANKLIN	498	2655	75. 9	1486	1486	1486
MAGNED8012	SHERMAN	FRANKLIN	3019	824	322. 8	2111	2108	2108
MAGNED8023	TURNER FALLS-CANAL SYSTEM	FRANKLIN	4528	137948	1.7382	1005	1005	1005
MAANED0912	CHICOPEE FALLS	HAMPDEN	1355	8084	31. 20	1248	1248	1248
MAMNED0906	CRESCENT MILLS	HAMPDEN	1126	5936	33.169	1267	1267	1267
MACNED8554	GRANVILLE RESERVOIR	HAMPDEN	118	530	85.479	1521	1521	1521
MAGNED8025	HOLYOKE DAM-CANAL SYSTEM	HAMPDEN	1122	13615	4.2639	1033	1033	1033
MAGNED8005	INDIAN ORCHARD	HAMPDEN	783	5352	5.4789	1046	1046	1046
MAGNED8004	LUDLOW MANUF. ASSOCIATION	HAMPDEN	1184	6445	6.9782	1063	1063	1063
MAGNED8007	STRATMORE PAPER	HAMPDEN	391	5986	3. 215	1014	1014	1014
MAANED8559	THE GORGE	HAMPDEN	491	1903	56.153	1397	1397	1397
MAGNED8006	WEST SPRINGFIELD 3	HAMPDEN	229	5110	3.2658	1018	1018	1018
MAGNED8003	WESTERN MAELECTRIC	HAMPDEN	2343	9911	9.1293	1092	1092	1092
MAGNED8027	WESTFIELD RIVER PAPER	HAMPDEN	132	2264	5.6661	1048	1048	1048
MACNED0922	KNIGHTVILLE DM	HAMPSHIRE	962	4051	40.928	1329	1329	1329
MAINED8009	QUABBIN RESERVOIR	HAMPSHIRE	165	3752	3.8219	1027	1027	1027
MACNED8553	TIGHE CARMODY RESERVOIR	HAMPSHIRE	228	1074	58.198	1414	1414	1414
MAMNED0946	WARE IND DAM	HAMPSHIRE	577	2866	51.615	1387	1387	1387
MACNED8519	NEWTON UPPER FALLS	MIDDLESEX	395	1957	74.163	1481	1481	1481
MAMNED0603	NORTH CANAL LOCKS - CANAL SY	MIDDLESEX	33584	111880	24.732	1195	1195	1195
MAMNED0602	OLD GUARD LOCKS - CANAL SYST	MIDDLESEX	24628	82045	23.123	1179	1179	1179
MAGNED8024	PAWTUCKET-CANAL SYSTEM	MIDDLESEX	906	41952	0.72263	1000	1000	1000
MAINED8020	PEPPEREL PAPER COMPANY	MIDDLESEX	468	2062	17.830	1145	1145	1145
MACNED8518	RESERVOIR ONE	MIDDLESEX	219	1224	77.551	1494	1494	1494
MACNED8516	SAXONVILLEDAM POND	MIDDLESEX	289	1554	66.403	1452	1452	1452
MAMNED0601	SWAMP LOCKS - CANAL SYSTEM	MIDDLESEX	17911	59669	30.624	1244	1244	1244
MAANED8505	WATERTOWN DAM	MIDDLESEX	415	2094	77.230	1493	1493	1493
MAMNED8524	BLACKSTONEDAM	WORCESTER	398	2219	80. 30	1501	1501	1501
MAGNED8011	COSGROVE \WACMUSETT AQUADUCT	WORCESTER	1316	1027	94.778	2102	2099	2099
MACNED8530	FISHERVILLE POND	WORCESTER	423	2102	63.440	1435	1435	1435

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
MAMNED1090	FT DEVONS DAM	WORCESTER	459	2316	67,386	1456	1456	1456
MACNED8548	LAKE ROMUNTA	WORCESTER	262	1042	81,744	1507	1507	1507
MACNED8521	LANCASTER MILL POND	WORCESTER	357	1995	57, 69	1404	1404	1404
MAONED8574	MACTAGGARTS POND	WORCESTER	246	1058	72,342	1476	1476	1476
MACNED8536	QUINEBAUG RIVER POND	WORCESTER	388	1928	71,285	1473	1473	1473
MACNED8523	SUDBURY RESERVOIR	WORCESTER	263	1470	45,728	1356	1356	1356
MAANED1093	TUPPEN DAM	WORCESTER	1278	6897	27, 75	1219	1219	1219
MAANED1074	WACHUSETT RES	WORCESTER	1068	6517	23,150	1180	1180	1180

NEW HAMPSHIRE

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
NHMNED5565	AVERY DAM	BELKNAP	587	3204	62.754	1434	1434	1434
NHDNED8501	LAKEPORT DAM	BELKNAP	1321	3711	81.401	1505	1505	1505
NHMNED5573	LOCHMERE	BELKNAP	558	3070	66.164	1450	1450	1450
NHGNED7072	TILTON	BELKNAP	20000	29600	46.304	2051	2049	2049
NHMNED5568	WINNIPSKE R 2	BELKNAP	709	3743	56.785	1402	1402	1402
NHDNED5583	BERRY BAY DAM	CARROLL	3894	6929	70.180	1468	1468	1468
NHGNED8020	GOODRICH FALLS	CARROLL	508	1260	35.566	1285	1285	1285
NHANED5597	PEQUAWKT D	CARROLL	484	2836	66.563	1453	1453	1453
NHMNED8570	WILDCAT BROOK	CARROLL	1046	2348	61.775	1428	1428	1428
NHMNED0504	ASHUELOT RIVER 1	CHESHIRE	1085	5739	35.490	1284	1284	1284
NHMNED5656	ASHUELOT R	CHESHIRE	607	3134	57.778	1412	1412	1412
NHMNED5661	ASHUELOT RIV	CHESHIRE	1142	5990	34.283	1275	1275	1275
NHMNED5662	ASHUELOT RIV 2	CHESHIRE	964	5059	40. 33	1323	1323	1323
NHMNED5663	ASHUELOT RIV	CHESHIRE	857	4427	45.209	1352	1352	1352
NHMNED8527	MINNEWAWA BROOK THREE	CHESHIRE	277	1129	80.596	1503	1503	1503
NHGNED8016	ANDROSCOGGNONE	COOS	1879	17918	4.5014	1036	1036	1036
NHCNED5716	ERROL DAM	COOS	8720	19018	49.724	1369	1369	1369
NHMNED5718	GROVETON PAPER	COOS	6549	14286	56.692	1401	1401	1401
NHGNED8006	J. BRODIE SMITH	COOS	2490	20935	5.9377	1050	1050	1050
NHCNED5724	LAKE FRANCIS	COOS	2235	11999	20.556	1162	1162	1162
NHMNED8528	NEW ENGLAND ELECTRICSYSTEM	COOS	706	2733	53.902	1393	1393	1393
NHCNED5715	PONTOOK DAM	COOS	9254	20182	50.192	1373	1373	1373
NHGNED8002	RIVERSIDE	COOS	123	3994	1.5323	1004	1004	1004
NHMNED0500	SAWMILL DAM	COOS	13253	27753	46. 51	1357	1357	1357
NHMNED0503	UPPER AMMONOOSUC RIVER	COOS	329	1912	78.278	1496	1496	1496
NHMNED8530	UPPER AMMONOOSUC RIVER TWO	COOS	342	2011	70.337	1469	1469	1469
NHMNED5818	AMMONOOSC RV 1	GRAFTON	607	3482	44.201	1351	1351	1351
NHMNED5827	AMMONOOSUCONE	GRAFTON	532	3105	51. 59	1382	1382	1382
NHGNED8013	AYERS ISLAND	GRAFTON	3957	15727	19.979	1161	1161	1161
NHGNED8010	COMERFORD	GRAFTON	107028	51527	39.788	1321	1321	1321
NHGNED8009	FIFTEEN MILE FALLS	GRAFTON	74677	60651	25.251	1202	1202	1202
NHMNED5820	LITTLETON 1	GRAFTON	457	2099	71.611	1474	1474	1474
NHANED8556	MAD RIVER ONE	GRAFTON	342	1376	69.901	1467	1467	1467
NHMNED8513	MASCOMA RIVER THREE	GRAFTON	567	1825	89.685	1527	1527	1527
NHMNED8514	MASCOMA RIVER TEN	GRAFTON	687	2213	83.240	1513	1513	1513
NHMNED8517	MASCOMA RIVER SEVEN	GRAFTON	844	2716	67.844	1458	1458	1458
NHMNED8521	MASCOMA RIVER EIGHT	GRAFTON	641	2064	86.227	1524	1524	1524
NHGNED8017	N E POWER 2	GRAFTON	1261	14463	4.4584	1035	1035	1035
NHMNED8558	NEWFOUND RIVER ELEVEN	GRAFTON	475	1888	61.538	1426	1426	1426
NHMNED5887	CONTOOCOOKR 2	HILLSBORO	1055	5140	38.448	1311	1311	1311

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
NHMNED8546	CONTOOCOOKRIVER TWO	HILLSBORO	214	1058	87.500	1526	1526	1526
NHMNED5881	GREGGS FALLS	HILLSBORO	1668	7525	21.625	1171	1171	1171
NHMNED5896	JACKSON ML	HILLSBORO	933	4536	42.781	1341	1341	1341
NHMNED5895	MINES FALLS	HILLSBORO	1585	8014	24.726	1194	1194	1194
NHANED8553	SOUHEGAN RIVER ONE	HILLSBORO	320	1494	75.733	1488	1488	1488
NHMNED8540	SOUHEGAN RIVER	HILLSBORO	478	1985	68.903	1463	1463	1463
NHGNED8011	AMOSKEAG	HILLSBOROUGH	7762	25486	12.171	1117	1117	1117
NHGNED8022	CONTOOCOOK3	HILLSBOROUGH	111	2252	4.5960	1038	1038	1038
NHMNED8574	CONTOOCOOKFOUR	HILLSBOROUGH	451	1980	75.457	1487	1487	1487
NHINED8015	JACKMAN RESERVOIR	HILLSBOROUGH	524	2427	15.371	1135	1135	1135
NHCNED8572	MONADNOCK MILL	HILLSBOROUGH	378	1687	88.123	1528	1528	1528
NHMNED0507	PISCATAQUOG 1	HILLSBOROUGH	776	3315	50.376	1374	1374	1374
NHONED0523	STEELE POND	HILLSBOROUGH	939	3646	38.391	1310	1310	1310
NHCNED8573	WALERLOOM POND	HILLSBOROUGH	251	1109	76. 19	1489	1489	1489
NHCNED5982	BLACKWATERDAM	MERRIMACK	357	1661	73.336	1480	1480	1480
NHMNED8534	BLACKWATERRIVER ONE	MERRIMACK	305	1300	85. 17	1519	1519	1519
NHMNED5987	CONTOCOK VALY	MERRIMACK	631	3195	60.294	1420	1420	1420
NHMNED0518	CONTOOCOOKRIVER	MERRIMACK	720	3767	61.451	1425	1425	1425
NHMNED0519	CONTOOCOOKRIVER	MERRIMACK	610	3250	65.486	1447	1447	1447
NHMNED0520	CONTOOCOOKRIVER	MERRIMACK	1277	7256	33. 73	1266	1266	1266
NHMNED0521	CONTOOCOOKRIVER	MERRIMACK	592	2997	64.824	1445	1445	1445
NHMNED0522	CONTOOCOOKRIVER 2	MERRIMACK	456	2388	76.666	1492	1492	1492
NHGNED8014	EASTMAN FALLS	MERRIMACK	1892	7147	10.474	1103	1103	1103
NHONED0506	GILES POND	MERRIMACK	462	1811	55.308	1394	1394	1394
NHGNED8012	HOOKSETT	MERRIMACK	939	8126	12. 25	1114	1114	1114
NHCNED5980	HOPKINTON LK	MERRIMACK	973	4956	41. 59	1331	1331	1331
NHMNED5998	SEWALLS FALLS	MERRIMACK	13732	32003	48.776	1365	1365	1365
NHANED5991	SUNCOOK RIV 6	MERRIMACK	567	2567	63.787	1439	1439	1439
NHMNED0508	SUNCOOK RIVER 1	MERRIMACK	699	3093	55.929	1396	1396	1396
NHMNED0509	SUNCOOK RIVER	MERRIMACK	1215	5527	31.914	1253	1253	1253
NHMNED0510	SUNCOOK RIVER 3	MERRIMACK	1338	6141	28.814	1229	1229	1229
NHMNED8536	SUNCOOK RIVER ONE	MERRIMACK	304	1336	88.415	1531	1531	1531
NHMNED8547	SUNCOOK RIVER THREE	MERRIMACK	379	1579	76.466	1491	1491	1491
NHMNED8548	SUNCOOK RIVER TWO	MERRIMACK	420	1736	73. 60	1479	1479	1479
NHMNED0511	WINNIPESAUKE 1	MERRIMACK	1166	6093	37.518	1302	1302	1302
NHMNED0512	WINNIPESAUKE 2	MERRIMACK	1166	6093	37.518	1303	1303	1303
NHMNED0513	WINNIPESAUKE 3	MERRIMACK	1295	7714	26.429	1215	1215	1215
NHMNED0514	WINNIPESAUKE 4	MERRIMACK	1121	5799	39.616	1319	1319	1319
NHMNED0515	WINNIPESAUKE 5	MERRIMACK	1166	6093	37.518	1304	1304	1304
NHMNED0516	WINNIPESAUKE 6	MERRIMACK	1180	6170	37.293	1299	1299	1299

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (Kw)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
NHMNED0517	WINNIPESAUKE B	MERRIMACK	1164	6341	35.100	1281	1281	1281
NHMNED6028	LAMPREY RIVER	ROCKINGHAM	1253	5236	33.191	1268	1268	1268
NHMNED8542	MERRIMACK	ROCKINGHAM	502	2164	67.936	1459	1459	1459
NHANED8550	SPICKET RIVER WHEELERS	ROCKINGHAM	257	981	82.548	1509	1509	1509
NHMNED8510	COCHECO RIVER ONE	STRAFFORD	269	1175	82.639	1511	1511	1511
NHMNED6059	COCHECO RVFOU	STRAFFORD	1041	4351	37.468	1301	1301	1301
NHMNED8509	ISINGLASS RIVER THREE	STRAFFORD	303	1275	74.387	1483	1483	1483
NHMNED6080	SALMNFALLSPIV2	STRAFFORD	1469	6710	25.514	1205	1205	1205
NHANED6081	SALMON FALLS R	STRAFFORD	1283	5360	33.239	1269	1269	1269
NHANED6082	SALMON FALLS	STRAFFORD	545	2451	63.981	1441	1441	1441
NHMNED0525	SALMON FALLS RIVER	STRAFFORD	723	3150	53. 35	1390	1390	1390
NHMNED8505	SALMON FALLS ELEVEN	STRAFFORD	322	1390	81.535	1506	1506	1506
NHMNED8506	SALMON FALLS RIVER	STRAFFORD	336	1451	85.346	1520	1520	1520
NHMNED8512	SALMON FALLS FOUR	STRAFFORD	491	2010	60.757	1422	1422	1422
NHMNED8567	SALMON FALLS 1	STRAFFORD	472	1932	64.129	1443	1443	1443
NHONED0524	SALMON FALLS 2	STRAFFORD	973	5345	25.489	1204	1204	1204
NHANED8515	SUGAR RIVER EIGHT	SULLIVAN	326	1625	88.366	1530	1530	1530
NHGNED8018	SUGAR RIVER THREE	SULLIVAN	160	2055	7.3644	1065	1065	1065
NHGNED8019	SUGAR RIVER TEN	SULLIVAN	111	2770	4.2000	1032	1032	1032
NHMNED0501	SUGAR RIVER 1	SULLIVAN	292	1186	78.594	1497	1497	1497
NHMNED8519	SUGAR RIVER THREE	SULLIVAN	603	2329	51.187	1383	1383	1383
NHMNED6118	SUGAR RV ONE	SULLIVAN	928	4163	39.478	1318	1318	1318
NH6NED7018	THATCHER	SULLIVAN	277	1135	70.718	2087	2084	2084

RHODE ISLAND

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
RIMNED8512	ARKWRIGHT MILL	KENT	364	1746	70.992	1471	1471	1471
RIMNED8519	ARTIC	KENT	340	1781	63.475	1436	1436	1436
RIDNED8510	CENTERVILLE POND	KENT	289	1493	74.435	1484	1484	1484
RIMNED8511	HARRIS MILL	KENT	465	2219	58.131	1415	1415	1415
RICNED1702	NATICK POND	KENT	736	4254	34.424	1276	1276	1276
RIANED8507	QUIDNICK UPPER	KENT	300	1550	70.939	1470	1470	1470
RIMNED8515	RIVER POINT UPPER	KENT	432	2250	50.913	1380	1380	1380
RIANED1769	ALBIDN	PROVIDENCE	801	4414	50.983	1381	1381	1381
RIANED1770	ASHTON DAM	PROVIDENCE	660	3704	59.931	1419	1419	1419
RIANED1773	CENT FALLSDAM	PROVIDENCE	727	4054	57.484	1409	1409	1409
RIANED8506	EAST PROVIDENCE WATER WORKS	PROVIDENCE	228	1054	87.783	1527	1527	1527
RICNED8504	HARRIS POND	PROVIDENCE	198	922	85.611	1522	1522	1522
RIANED9059	MANVILLE	PROVIDENCE	1132	6312	35.117	1282	1282	1282
RIANED9060	PAWTKET LOWER	PROVIDENCE	1110	6232	37.151	1297	1297	1297
RIMNED8505	PAWTUCKET UPPER	PROVIDENCE	470	2604	74.210	1482	1482	1482
RIANED1771	PRATT	PROVIDENCE	840	4614	45.644	1355	1355	1355
RIMNED1772	VALLY FALLS PD	PROVIDENCE	877	4860	46.434	1359	1359	1359
RIANED1767	WOONSOCK FALLS	PROVIDENCE	1503	8329	25.572	1206	1206	1206
RIMNED8500	POTTER HILL	WASHINGTON	312	1767	88.748	1533	1533	1533

VERMONT

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ECON	ERC REGION NON-ECON	COMP
VTGNED8014	BELDENS	ADDISON	1044	2245	27. 38	1218	1218	1218
VT6NED7021	HANCOCK	ADDISON	150	744	85,782	2099	2096	2096
VTGNED8015	HUNTINGTONFALLS	ADDISON	1022	11201	7,3752	1067	1067	1067
VT6NED7019	HUNTINGTONFALLS	ADDISON	4706	14774	31,333	2022	2022	2022
VTGNED8018	MIDDLEBURYLOWER	ADDISON	762	6372	8,5264	1083	1083	1083
VTMNED6142	MIDDLEBURYUPP	ADDISON	952	5730	39,254	1316	1316	1316
VT6NED7018	NEW HAVEN MILLS	ADDISON	886	3718	34, 11	2029	2029	2029
VTINED8020	SILVER LAKE	ADDISON	908	-313	325,43	2112	2109	2109
VTGNED8016	VERGENNES NINE	ADDISON	299	7270	2,5210	1012	1012	1012
VTGNED8017	WEYBRIDGE	ADDISON	1135	5626	8,4564	1081	1081	1081
VTMNED8529	MANCHESTERCENTER	BENNINGTON	700	3748	46,650	1360	1360	1360
VTGNED8035	SEARSBURG	BENNINGTON	461	-2389	13,892	1130	1130	1130
VTMNED6156	TANNING COMP D	BENNINGTON	1023	5904	32,462	1258	1258	1258
VTANED8510	VERMONT TISSUE	BENNINGTON	198	1205	84,403	1515	1515	1515
VT6NED7011	E. ST. JOHNSBURY	CALEDONIA	863	4720	30,138	2019	2019	2019
VT6NED7012	FISH HATCHERY	CALEDONIA	387	1864	44,259	2047	2045	2045
VTGNED8029	GREAT FALLS	CALEDONIA	823	757	123,49	2104	2101	2101
VTCNED8515	HARDWICK LAKE	CALEDONIA	365	1545	80,431	1502	1502	1502
VT6NED7016	JOES BROOK	CALEDONIA	663	2319	52,806	2069	2066	2066
VT6NED7010	LYNDON CENTER	CALEDONIA	416	2343	39,608	2039	2038	2038
VT6NED7013	MILE 1	CALEDONIA	703	2583	48,647	2056	2054	2054
VT6NED7014	MILE 2	CALEDONIA	426	1494	61,871	2079	2076	2076
VTGNED8042	PASSUMPSIC	CALEDONIA	76	885	8,8414	1090	1090	1090
VTGNED8030	WEST DANVILLE	CALEDONIA	574	174	277,75	2109	2106	2106
VTMNED6177	EAST RYGATE	CALENDONIA	14981	21707	85, 10	1518	1518	1518
VTANED6187	AMERICAN WOOL	CHITTENDEN	6909	19638	34,998	1280	1280	1280
VT6NED7005	BROWN RIVER	CHITTENDEN	787	3445	38,704	2037	2036	2036
VTGNED8008	CLARKS FALLS	CHITTENDEN	910	8535	3,9935	1029	1029	1029
VTGNED8025	GORGE EIGHTEEN	CHITTENDEN	2689	10857	10,507	1104	1104	1104
VTGNED8024	GORGE NINETEEN	CHITTENDEN	3560	10876	31,777	1252	1252	1252
VT6NED7006	HUNTINGTON	CHITTENDEN	729	3747	34, 14	2030	2030	2030
VTGNED8009	MILTON FALLS	CHITTENDEN	2624	11826	12, 44	1115	1115	1115
VTGNED8002	GILMAN	ESSEX	1042	14110	3, 520	1015	1015	1015
VT6NED7004	MILE 12	ESSEX	848	4128	33,931	2027	2027	2027
VT6NED7003	STONE DAM	ESSEX	8728	20432	35,839	2032	2032	2032
VTMNED6500	EAST HIGHGATE	FRANKLIN	950	5656	47,352	1362	1362	1362
VTGNED8038	ENOSBURG FALLS 2	FRANKLIN	465	3567	12,550	1119	1119	1119
VTGNED8013	FAIRFAX FALLS	FRANKLIN	1086	9873	8,5602	1084	1084	1084
VTGNED8006	HIGHGATE FALLS	FRANKLIN	3937	18675	13,274	1125	1125	1125
VT6NED7001	SHELDON RESERVOIR	FRANKLIN	676	2865	49,244	2060	2058	2058

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VTGNED8007	SHELDON SPRINGS	FRANKLIN	201	9763	1.9572	1008	1008	1008
VTMNED6199	SWANTON DAM	FRANKLIN	2795	7343	68.652	1462	1462	1462
VTGNED8011	CADYS FALLS	LAMOILLE	243	3753	4.1355	1030	1030	1030
VT6NED7007	JOHNSON	LAMOILLE	6278	18730	36.308	2035	2034	2034
VT6NED7008	WILD BRANCH	LAMOILLE	335	1258	74.112	2088	2085	2085
VTGNED8040	WOLCOTT DAM	LAMOILLE	349	2337	9.3537	1095	1095	1095
VTMNED8509	BOLTONVILLE DAM	ORANGE	481	1924	62.480	1430	1430	1430
VT6NED7022	BOLTONVILLE #1	ORANGE	844	3396	36.999	2036	2035	2035
VTMNED6222	BRADFORD	ORANGE	698	4169	28.980	1232	1232	1232
VT6NED7023	CASSVILLE	ORANGE	4786	14989	29.705	2018	2018	2018
VT6NED7025	COPPER FLAT	ORANGE	306	1092	76.579	2089	2086	2086
VT6NED7024	PIERMONT	ORANGE	19579	61939	26.470	2015	2015	2015
VTANED6220	UNION VILAG DM	ORANGE	615	3527	32.655	1262	1262	1262
VTGNED8039	BAKERS FALLS	ORLEANS	148	1521	9.5805	1097	1097	1097
VT6NED7002	JAY BRANCHRESERVOIR	ORLEANS	10808	18089	48.408	2055	2053	2053
VTGNED8043	LUBBER LAKE	ORLEANS	290	1379	13.316	1127	1127	1127
VTGNED8031	NEWPORT	ORLEANS	1403	5637	19. 95	1154	1154	1154
VTGNED8032	NEWPORT TWO	ORLEANS	522	2714	9.9587	1101	1101	1101
VTMNED8514	NORTH TROYDAM	ORLEANS	277	1651	72.218	1475	1475	1475
VTGNED8033	PENSIONER POND	ORLEANS	641	3533	17.858	1146	1146	1146
VTGNED8037	CARVERS FALLS	RUTLAND	382	6204	5. 784	1043	1043	1043
VT6NED7036	EAST CLARENDON	RUTLAND	622	3558	30.643	2020	2020	2020
VTMNED8531	NEEDHAMS MILL	RUTLAND	855	4581	41.982	1336	1336	1336
VTANED8519	NESHOBE	RUTLAND	7975	21841	34.698	1278	1278	1278
VT6NED7034	NORTH PAWLET	RUTLAND	812	3047	40.506	2041	2039	2039
VT6NED7033	PAWLET	RUTLAND	800	4647	29.526	2017	2017	2017
VTGNED8023	PITTSFORD	RUTLAND	3070	-278	708.68	2114	2111	2111
VTMNED8525	RIPLEY MILLS	RUTLAND	339	2056	79.477	1499	1499	1499
VT6NED7035	WALLINGFORD	RUTLAND	536	2250	51.119	2065	2062	2062
VTMNED6269	BOLTON FALLS	WASHINGTON	3813	23131	12.102	1116	1116	1116
VTMNED8522	DANIELS MILL	WASHINGTON	538	1967	62.535	1431	1431	1431
VT6NED7017	E. MONTPELIER	WASHINGTON	736	3391	46.459	2052	2050	2050
VTGNED8026	MIDDLESEX TWO	WASHINGTON	738	2442	11.647	1107	1107	1107
VTMNED8512	MONTPELIERTHREE	WASHINGTON	309	1770	88.148	1529	1529	1529
VTMNED9014	MONTPELR FOUR	WASHINGTON	736	3475	46.145	1358	1358	1358
VTMNED6279	MORETOWN EIGHT	WASHINGTON	793	3344	44. 53	1348	1348	1348
VTONED8523	NORTHFIELDMILL	WASHINGTON	267	1112	89.484	1536	1536	1536
VTINED8028	WATERBURY RESERVOIR	WASHINGTON	2759	-183	1116.0	2115	2112	2112
VTANED6290	BALL MOUNTAIN	WINDHAM	1201	6930	23.192	1181	1181	1181
VTGNED8004	BELLOWS FALLS	WINDHAM	17429	55367	17.339	1144	1144	1144

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VT6NED7042	BROCKWAY MILLS	WINDHAM	852	5103	25.535	2013	2013	2013
VT6NED7043	BUNDY BROOK	WINDHAM	636	2414	50.503	2061	2059	2059
VTINED8036	HARRIMAN	WINDHAM	5241	3754	25.194	1201	1201	1201
VT6NED7047	NO 10	WINDHAM	655	2741	48.846	2058	2056	2056
VT6NED7045	RAWSONVILLE	WINDHAM	611	2286	56.757	2075	2072	2072
VTCNED6294	SOMERSET RFS	WINDHAM	421	2357	36.777	1290	1290	1290
VTANED6291	TOWNSHEND DAM	WINDHAM	1119	4861	40.220	1324	1324	1324
VTGNED8005	VERNON	WINDHAM	15805	146499	10.278	1102	1102	1102
VTANED6295	W DUMMERSTON	WINDHAM	1285	6361	32.486	1259	1259	1259
VT6NED7044	W. LONDONDERRY	WINDHAM	351	1351	69.140	2082	2082	2082
VTGNED8034	CAVENDISH	WINDSOR	270	1068	21.820	1172	1172	1172
VTMNED6331	COMTU FALLS	WINDSOR	946	4083	40.391	1325	1325	1325
VTCNED8501	DEWEYS MILLS POND	WINDSOR	406	2016	72.946	1478	1478	1478
VTMNED6315	DEWEYS MILLS	WINDSOR	1262	5788	29.340	1234	1234	1234
VTMNED6317	EMERY MILLS	WINDSOR	971	4371	38.233	1309	1309	1309
VT6NED7028	GAYSVILLE	WINDSOR	16539	24372	47.672	2053	2051	2051
VTANED6332	GILMAN DAM	WINDSOR	946	4083	40.391	1326	1326	1326
VTMNED6318	HAMPSON	WINDSOR	796	3796	43.733	1347	1347	1347
VT6NED7040	HAWKS MOUNTAIN	WINDSOR	6335	17117	32.301	2023	2023	2023
VT6NED7039	LUDLOW	WINDSOR	313	1223	80.776	2094	2091	2091
VTCNED8505	MILL POND	WINDSOR	333	1279	72.683	1477	1477	1477
VTANED6313	NO HARTLAND DM	WINDSOR	894	4165	40.621	1327	1327	1327
VTANED6314	NO SPRNGFELD D	WINDSOR	495	2241	63.765	1438	1438	1438
VT6NED7032	QUECHEE	WINDSOR	923	2661	79.165	2092	2089	2089
VT6NED7030	RANDOLPH	WINDSOR	420	2556	39.584	2038	2037	2037
VT6NED7041	REEDVILLE	WINDSOR	271	1090	69.943	2086	2083	2083
VT6NED7037	RIVERSIDE	WINDSOR	360	2109	52.772	2068	2065	2065
VT6NED7026	ROCHESTER	WINDSOR	490	2059	52.540	2067	2064	2064
VTCNED8502	SLACK	WINDSOR	486	2270	65.946	1449	1449	1449
VTGNED8044	TAFTSVILLEDAM	WINDSOR	257	664	49.791	1370	1370	1370
VT6NED7027	WEST BR. WHITE RIVER	WINDSOR	383	1414	81.103	2095	2092	2092
VT6NED7038	WEST WOODSTOCK	WINDSOR	2483	8305	33.847	2026	2026	2026
VTGNED8003	WILDER	WINDSOR	16259	97058	8.3176	1077	1077	1077

NEW YORK

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NYGNAN0039	GREEN ISLAND	ALBANY	11487	66262	18,997	1152	1152	1152
NY7NC80001	PORTAGE	ALLEGANY	51143	218941	30,780	2021	2021	2021
NYCNAB0025	WHITNEY POINT	BROOME	1954	5254	50,911	1379	1379	1379
NYANAN0059	ALICE FALLS	CLINTON	6604	19218	22, 60	1174	1174	1174
NYHNAN0041	CADYVILLE CONCRETE DAM	CLINTON	6190	19544	23,747	1186	1186	1186
NYCNAN0045	HIGH FALLSDAM	CLINTON	7392	19513	25,941	1209	1209	1209
NYGNAN0049	KENT FALLS	CLINTON	33431	39788	26,530	1216	1216	1216
NYGNAN0048	MILL C	CLINTON	4763	17497	24,663	1193	1193	1193
NYGNAN0042	PLATTSBURGNO 1	CLINTON	8930	17954	25, 73	1198	1198	1198
NYGNAN0046	PLATTSBURG	CLINTON	524	4709	13, 55	1123	1123	1123
NYGNAN0050	PLATTSBURGNO 2	CLINTON	3662	8661	28,889	1230	1230	1230
NYDNAN0054	TREEDWELLSMILL DAM	CLINTON	4512	13661	31,581	1251	1251	1251
NYHNAN0172	STUYVESANTFALLS	COLUMBIA	5102	12406	36, 7	1288	1288	1288
NYCNAP0017	CANNONSVILLE DAM	DELAWARE	19009	56071	20,630	1163	1163	1163
NYCNAP0016	PEPACTON (DOWNSVILLE)	DELAWARE	21870	39529	29,708	1238	1238	1238
NYANAN0058	GROVEVILLEMILLS	DUTCHESS	2255	6696	41,233	1333	1333	1333
NYGNAN0056	WAPPINGERSFALLS	DUTCHESS	3071	5478	50,649	1377	1377	1377
NYGNCB0016	SPRINGVILLE	ERIE	83	1495	6,7053	1059	1059	1059
NYCNAN0070	CHAIN LAKES	ESSEX	6815	20545	29,774	1240	1240	1240
NYCNAN0068	CHERRY PATCH	ESSEX	1029	5906	28,973	1231	1231	1231
NYANAN0067	CLINTONVILLE	ESSEX	5013	15179	24,511	1191	1191	1191
NYDNAN0071	J J ROGERSDAM	ESSEX	15867	33296	37,420	1300	1300	1300
NYANAN0069	KETTLE MOUNTAIN	ESSEX	6390	21257	24,542	1192	1192	1192
NYGNAN0063	ROME DAM	ESSEX	968	1507	50,492	1375	1375	1375
NYDNAN0072	TICONDEROGA NO 3	ESSEX	6827	20406	32,244	1256	1256	1256
NYANAN0066	UNDERWOOD	ESSEX	4571	12718	37,724	1305	1305	1305
NYDNAN0073	WADHAM NO 1	ESSEX	2043	5394	40,759	1328	1328	1328
NYCNCB0022	CHASM POWER CO DAM	FRANKLIN	2159	17408	13,816	1128	1128	1128
NYBNCB0029	CHATEAUGAYMILL	FRANKLIN	1227	9752	23,765	1187	1187	1187
NYGNCB0026	HOGANSBURG	FRANKLIN	142	1681	15,105	1133	1133	1133
NYHNAN0082	INGHAMS	FULTON	20570	24603	32,136	1255	1255	1255
NYDNAN0078	IRVING POND DAM	FULTON	4800	10831	41, 35	1330	1330	1330
NYDNAN0077	PECKS LAKEDAM	FULTON	5794	12641	32,995	1265	1265	1265
NYDNAN0086	CAIRO	GREENE	4812	9902	37,201	1298	1298	1298
NYDNAN0088	INDIAN LAKE STONE DAM	HAMILTON	1890	5345	41,778	1335	1335	1335
NYANAN0092	PISECO LAKE	HAMILTON	2129	7113	37,107	1296	1296	1296
NYGNAN0102	DOLGEVILLE	HERKIMER	6419	18399	18, 32	1147	1147	1147
NYANAN0098	KYSER LAKEDAM	HERKIMER	15599	47227	23,714	1185	1185	1185
NYGNAN0101	LITTLE FALLS	HERKIMER	1035	6327	25, 24	1197	1197	1197
NYJNCB0039	MOSHIER	HERKIMER	1197	8534	11,960	1112	1112	1112

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NY4NAN0095	PROSPECT	HERKIMER	21459	69129	35.159	1283	1283	1283
NYINAN0100	PROSPECT DAM	HERKIMER	21636	2562	207.85	2108	2105	2108
NYCNCB0036	STILLWATERRESERVOIR DAM	HERKIMER	1013	6162	29.410	1235	1235	1235
NYGNAN0099	TRENTON FALLS	HERKIMER	71248	18638	63.503	1437	1437	1437
NYDNAN0104	WILMURT	HERKIMER	14129	32788	33.639	1272	1272	1272
NYGNCB0055	BLACK RIVER POWER DAM	JEFFERSON	2049	8268	21.909	1173	1173	1173
NYYNCB0044	BROWNVILLEDAM	JEFFERSON	16116	65785	49.801	1371	1371	1371
NYGNCB0064	CROWN ZELLERBACH CORP DAM	JEFFERSON	559	9738	4.8003	1040	1040	1048
NYGNCB0056	DEXTER	JEFFERSON	242	8200	3.7996	1026	1026	1026
NYGNCB0066	DIAMOND ISLAND	JEFFERSON	415	9289	6.1045	1054	1054	1054
NYONCB0049	FELTS MILLS DEVEL DAM	JEFFERSON	6315	49931	8.4604	1082	1082	1082
NYCNCB0045	GLEN PARK MILL A SITE	JEFFERSON	5475	46005	8. 9	1073	1073	1073
NYCNCB0046	GLEN PARK MILL C	JEFFERSON	5469	45956	8. 37	1074	1074	1074
NYCNCB0054	GLEN PARK MILL B	JEFFERSON	5545	46593	7.9677	1072	1072	1072
NYMNCB0048	GREAT BENDDAM	JEFFERSON	3607	24200	21.290	1168	1168	1168
NYGNCB0058	HERRINGS	JEFFERSON	2294	12187	22.643	1175	1175	1175
NYHNCB0060	KAMARGO	JEFFERSON	1048	13183	6.7062	1060	1060	1060
NYCNCB0047	NYNONAME 23	JEFFERSON	1837	12964	32.687	1263	1263	1263
NYNNCB0068	PHILADELPHIA #2	JEFFERSON	1546	8753	22.876	1178	1178	1178
NYHNCB0061	SEWALLS ISLAND	JEFFERSON	723	6451	12.628	1120	1120	1120
NYMNCB0051	TANNERY ISLAND DAM	JEFFERSON	2141	16096	26. 2	1210	1210	1210
NYINCB0053	THERESA #1	JEFFERSON	552	7308	8.7380	1087	1087	1087
NYGNCB0057	WATERTOWN MUN MAIN DIVER DAM	JEFFERSON	1054	9551	9. 727	1091	1091	1091
NYCNCB0050	WEST END DAM	JEFFERSON	2474	18155	24.445	1190	1190	1190
NYANCB0075	BEAVER FALLS OS	LEWIS	1057	7069	31.574	1250	1250	1250
NYGNCB0076	DENLEY DAM	LEWIS	201	2597	9.1729	1093	1093	1093
NYJNCB0041	EAGLE FALLS	LEWIS	1220	7186	15.271	1134	1134	1134
NYJNCB0040	ELMER	LEWIS	283	1081	18.196	1149	1149	1149
NY7NCB0084	FOWLERSVILLE	LEWIS	18157	81186	40.232	2040	2114	2114
NYGNCB0074	HARRISVILLE	LEWIS	205	2747	7.8925	1071	1071	1071
NYMNCB0069	LYDNSDALE DAM	LEWIS	1933	11821	19.929	1159	1159	1159
NYGNCB0082	MILL B	LEWIS	403	4111	8.3397	1079	1079	1079
NYGNCB0079	MILL NO 3	LEWIS	741	17810	3.6380	1022	1022	1022
NYGNCB0081	MILL NO 5	LEWIS	477	5903	4.6327	1039	1039	1039
NY4NCB0073	MOOSE RIVER	LEWIS	20010	67734	36.186	2034	2113	2113
NYGNCB0080	PORT LEYDEN	LEWIS	157	2756	6.8659	1061	1061	1061
NYJNCB0037	TAYLORVILLE DAM	LEWIS	532	5171	9.8574	1099	1099	1099
NYCNCB0088	MOUNT MORRIS	LIVINGSTON	2668	19825	15.744	1137	1137	1137
NYGNCB0087	STATION 160	LIVINGSTON	266	1438	29.272	1233	1233	1233
NYANCB0090	NEW YORK STATE BARGECANAL DA	MONROE	2813	15562	31. 77	1249	1249	1249

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NYHNC80092	STATION "26	MONROE	779	7978	4.3790	1034	1034	1034
NYHNC80093	STATION "2	MONROE	1888	13178	8.7127	1086	1086	1086
NYHNAN0173	BEARDSLEE FALLS	MONTGOMERY	16953	4005	92. 34	2101	2098	2101
NY4NC80096	LOWER NIAGARA RIVER DEVELOPM	NIAGARA	408131	3575235	9.4505	2000	2000	2000
NYLNC80097	ROBERT MOSES-NIAGARA	NIAGARA	193717	-1158159	1.8738	1007	1007	1007
NYONAN0105	DELTA DAM	ONEIDA	3884	18964	32. 61	1254	1254	1254
NY6NC80099	FISH CREEK"3	ONEIDA	20288	44321	48.809	2057	2055	2055
NY6NC80101	FISH CREEK"1	ONEIDA	16678	49644	43. 15	2044	2042	2042
NY6NC80102	HAWKINSVILLE	ONEIDA	19669	52376	125.17	1005	1002	1002
NY6NC80100	NO 2	ONEIDA	17879	40286	54.352	2072	2069	2069
NYGNC80111	BALDWINSVILLE	ONONDAGA	73	2344	6. 248	1052	1052	1052
NYANAN0109	N Y NO NAME-45	ORANGE	4439	10372	33.614	1271	1271	1271
NYCNAN0112	NO NAME "66	ORANGE	5802	16700	26.126	1211	1211	1211
NYINC80114	GLENWOOD	ORLEANS	433	-1629	14.286	1131	1131	1131
NYHNC80124	GRANBY	OSWEGO	972	14557	3. 915	1016	1016	1016
NYGNC80119	HIGH DAM	OSWEGO	2562	11857	11.967	1113	1113	1113
NYGNC80120	LOWER FULTON DAM	OSWEGO	374	6886	6.1388	1055	1055	1055
NYGNC80121	OSWEGO FALLS	OSWEGO	3872	21383	19.227	1156	1156	1156
NYINC80116	SALMON R LOWER RES DAM AT AL	OSWEGO	2849	-719	501.20	2110	2110	2110
NYGNC80118	VARICK	OSWEGO	879	14721	3.2883	1019	1019	1019
NYCNA80031	EAST STONEY	OTSEGO	1698	4491	43. 45	1344	1344	1344
NYONAN0119	CROTON FALLS DAM	PUTNAM	4565	14552	32.839	1264	1264	1264
NYDNAN0126	HOOSIC FALLS	RENSSELAER	4393	11139	36.800	1292	1292	1292
NYGNAN0128	JOHNSONVILLE	RENSSELAER	6059	14620	22.681	1176	1176	1176
NYGNAN0176	BAKERS FALLS	SARATOGA	708	16901	2. 761	1009	1009	1009
NYANAN0139	CONKLINGVILLE DAM \EJ WEST'	SARATOGA	14097	35655	26.138	1212	1212	1212
NYBNAN0136	CONKLINGVILLE DAM	SARATOGA	33731	103664	25. 90	1199	1199	1199
NYGNAN0179	CURTIS	SARATOGA	14570	42740	25.676	1207	1207	1207
NYGNAN0184	FEEDER DAM	SARATOGA	12099	32804	29.676	1237	1237	1237
NYANAN0181	FORT EDWARD	SARATOGA	19072	89709	12.771	1122	1122	1122
NYGNAN0178	MECHANICVILLE	SARATOGA	13582	43053	30.934	1248	1248	1248
NYGNAN0183	MECHANICVILLE	SARATOGA	16347	36813	42.977	1343	1343	1343
NYGNAN0182	MOREAU	SARATOGA	1500	12096	9.5341	1096	1096	1096
NYDNAN0137	NO NAME "15	SARATOGA	43672	106193	24.121	1188	1188	1188
NYHNAN0180	PALMER FALLS	SARATOGA	20293	85510	17. 94	1143	1143	1143
NYGNAN0187	SCHUYLERVILLE	SARATOGA	402	2098	24.403	1189	1189	1189
NYGNAN0185	SOUTH GLENFALLS	SARATOGA	52030	113215	21.390	1170	1170	1170
NYHNAN0186	STEWARTS BRIDGE	SARATOGA	8626	9348	27.416	1221	1221	1221
NYANAN0175	STILLWATER	SARATOGA	3753	23328	27.345	1220	1220	1220
NYANAN0177	STILLWATER	SARATOGA	5804	36077	21.266	1167	1167	1167

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
NYANAN0174	WATERFORD	SARATOGA	5711	39022	19.322	1157	1157	1157
NYANAN0190	WATERFORD	SARATOGA	5660	38994	19.153	1155	1155	1155
NYHNAN0191	CRESCENT	SCHENECTADY	25998	52370	33.821	1273	1273	1273
NYGNAN0055	VISCHER FERRY	SCHENECTADY	11222	41017	18.345	1150	1150	1150
NYINCB0125	SENECA FALLS	SENECA	1143	12567	3.3236	1020	1020	1020
NYINCB0126	WATERLOO	SENECA	257	3957	7.2171	1064	1064	1064
NYJNCB0153	BLAKE FALLS	ST LAWRENCE	1816	8712	12.705	1121	1121	1121
NYJNCB0156	BROWNS FALLS	ST LAWRENCE	1861	7752	6.3153	1056	1056	1056
NYCNCB0155	CARRY FALLS DEVELOPMENT	ST LAWRENCE	8029	56573	13.117	1124	1124	1124
NYJNCB0149	COLTON	ST LAWRENCE	6464	57233	2.6952	1013	1013	1013
NYHNCB0127	DEXTER ELEC CORP DAM	ST LAWRENCE	470	3568	15.483	1136	1136	1136
NYGNCB0159	EEL WEIR	ST LAWRENCE	1098	6129	15.803	1138	1138	1138
NYHNCB0172	EMERYVILLE	ST LAWRENCE	219	4627	3.8254	1028	1028	1028
NYJNCB0151	FIVE FALLSDEVELOPME NT	ST LAWRENCE	2364	12930	4.9942	1042	1042	1042
NYINCB0157	FLAT ROCK	ST LAWRENCE	2042	2052	64.118	1442	1442	1142
NY5NCB0168	FORT JACKSON	ST LAWRENCE	23746	72178	43.521	2045	2043	2043
NYGNCB0173	FOWLER	ST LAWRENCE	174	2115	8.7966	1089	1089	1089
NYHNCB0174	HAILESBORO	ST LAWRENCE	515	5834	7.3752	1066	1066	1066
NYJNCB0148	HANNAWA	ST LAWRENCE	1210	12954	5.8464	1049	1049	1049
NYGNCB0132	HEUVELTON DAM	ST LAWRENCE	532	4098	15.909	1139	1139	1139
NYCNCB0161	JACKSON FALLS	ST LAWRENCE	1319	7453	27.809	1225	1225	1225
NY5NCB0165	MOOSEHEAD RAPIDS	ST LAWRENCE	11998	59627	50.868	2115	2059	2059
NYHNCB0176	NATURAL DAM	ST LAWRENCE	315	5586	6. 247	1051	1051	1051
NYHNCB0136	NEWTON FALLS-LOWER	ST LAWRENCE	103	1606	7.6427	1070	1070	1070
NY5NCB0167	NICHOLVILLE	ST LAWRENCE	24807	72985	45.933	2050	2048	2048
NYHNCB0145	NORFOLK	ST LAWRENCE	854	8536	5.2927	1044	1044	1044
NYMNCB0131	OSWEGATCHIE DAM	ST LAWRENCE	1772	11257	35.604	1286	1286	1286
NYGNCB0175	PLANT NO 7	ST LAWRENCE	1239	7142	38.937	1314	1314	1314
NYHNCB0146	RAYMONDVILLE	ST LAWRENCE	239	4210	5.4753	1045	1045	1045
NYHNCB0158	SOUTH EDWARDS	ST LAWRENCE	489	2097	20.630	1164	1164	1164
NYHNCB0147	SUGAR ISLAND	ST LAWRENCE	1703	15573	9.9093	1100	1100	1100
NYGNCB0140	UNIONVILLE	ST LAWRENCE	188	958	23.428	1184	1184	1184
NYINCB0177	YALEVILLE	ST LAWRENCE	250	3811	11.686	1109	1109	1109
NYHNCB0160	KEUKA HYDRO	STEUBEN	0	0	0	1376	1376	1376
NYCNAP0031	NEVERSINK RESERVOIR DAM	SULLIVAN	3311	9394	37. 37	1293	1293	1293
NYPNCB0182	BEEBE LAKEDAM	TOMPKINS	982	6324	26.289	1214	1214	1214
NYANAN0145	ASHOKON DAM	ULSTER	19663	56620	18.506	1151	1151	1151
NYCNAN0154	CANTINE	ULSTER	3763	8934	37. 68	1294	1294	1294
NYGNAN0149	DASHVILLE	ULSTER	5617	5564	61.973	1429	1429	1429

SITE ID NUMBER	PROJECT NAME	PRIMARY COUNTY	INCREMENTAL CAPACITY (KW)	INCREMENTAL ENERGY (MWH)	INCREMENTAL COST ($/MWH)	RANKING NUMBER ERC REGION ECON	NON-ECON	COMP
NYDNAN0151	GARDINER	ULSTER	11245	24669	30, 25	1241	1241	1241
NYANAN0147	MERRIMAM DAM	ULSTER	7294	23357	28,725	1228	1228	1228
NYGNAN0148	STURGEON POOL	ULSTER	10179	18740	16,343	1142	1142	1142
NYHNAN0159	GLEN FALLS	WARREN	10216	18209	42,598	1339	1339	1339
NYCNAN0155	SCHROON RIVER PULP +PAPER DA	WARREN	4599	14691	30,908	1247	1247	1247
NYINAN0156	SHERMAN ISLAND DAM	WARREN	42447	28934	95,637	2103	2100	2103
NYGNAN0158	SPIER FALLS	WARREN	41307	25361	79,515	1500	1500	1500
NYCNAN0160	TROUT BROOK	WARREN	2847	10198	33,577	1270	1270	1270
NYHNAN0197	CARVERS FALLS	WASHINGTON	3148	6518	42,764	1340	1340	1340
NY4NAN0194	FENIMORE DAM	WASHINGTON	98808	240261	42,567	1338	1338	1338
NYGNAN0198	GREENWICH	WASHINGTON	20357	46841	25,403	1203	1203	1203
NYGNAN0196	MIDDLE FALLS	WASHINGTON	222	3665	3,6568	1023	1023	1023
NYANAN0164	NEW CROTONRESERVOIR DAM	WESTCHESTER	16837	40833	27,682	1224	1224	1224

Table 8-10

NPCC STUDY AREA

COMPUTER LISTING OF VIABLE HYDROELECTRIC DAMSITES - BY STATE (DETAILED)

TABLE 8-10
NPCC Study Area
Computer Listing of Viable Hydroelectric Sites-By State (Detailed)

CONNECTICUT

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
CTCNED8505	EASTON RESERVOIR	41 14.6	S	120.0	0	0	62,845	1504
2	FAIRFIELD MILL RIVER	73 15.0	OP	0	230	778	80,698	1504
	BRIDGEPORTHYDRALIC	12	-10.2	120.0	230	778		1504
CTCNED0012	S P SENIORDAM	41 14.8	S	0	0	0	90,149	1291
2	FAIRFIELD E BR SAU R	73 20.9	OP	42000	455	2450	36,789	1291
	BRIDGE PORT HYDRAULIC CO.	34	-58.3	110.0	455	2450		1291
CTMNED0051	COLINS CD LW D	41 47.9	R	0	0	0	198. 9	1313
2	HARTFORD FRMNGTN RV	72 55.6	OP	72	954	5111	38,751	1313
	STATE OF CONNECTICUT	360	-657.7	20.0	954	5111		1313
CTMNED0056	COLLINS CODAM	41 48.5	R	0	0	0	197.80	1312
2	HARTFORD FRMNGTN RV	72 55.5	OP	780	951	5105	38,744	1312
	STATE OF CONNECTICUT	359	-655.9	20.0	951	5105		1312
CTONED0038	COLLINS COB3	41 47.9	O	0	0	0	196.11	1342
2	HARTFORD FARMINGTON	72 55.6	OP	72	844	4563	42,977	1342
	COLLINS CO. DAM	360	-657.7	18.0	844	4563		1342
CTCNED8516	CT NONAME 31	41 58.9	O	25.0	0	0	109.49	1514
2	HARTFORD SCANTIC RIVER	72 30.8	OP	0	328	1314	83,319	1514
	SPRINGBORNLAB. INC.	66	-130.4	25.0	328	1314		1514
CTGNED8012	ENFIELD DAM-CANAL SYSTEM	41 59.4	H	10.0	500	2400	118.82	1129
2	HARTFORD CONN. RIVER	72 35.9	OP	0	753	8556	13,887	1129
	1 POWER PLANT ALONG CANAL	9661	-16339.5	10.0	1253	10956		1129
CTMNED8529	FARMINGTONF12	41 43.2	O	5.0	0	0	146.34	1538
2	HARTFORD FARMINGTONRIV	72 49.7	OP	0	272	1629	89,804	1538
	MS. HELEN WINTER	448	-776.8	5.0	272	1629		1538
CTCNED9064	HOGBACK DAM	41 59.2	S	0	0	0	425.99	1242
2	HARTFORD WBFARMIGTN	73 1.1	OP	140040	4353	14171	30. 59	1242
	MDC	127	-247.4	104.0	4353	14171		1242

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. G (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
CTGNED8002	RAINBOW POND	41 55.2	H	60.0	8000	28000	354.29	1410
2	HARTFORD FARMINGTONRIV	72 41.4	OP	0	2568	6140	57.701	1410
	FARMINGTONRIVER WAT ER CO.	582	-1063	60.0	10568	34140		1410
CTMNED8512	BANTA PROJECT L1	41 43.1	O	50.0	0	0	88.453	1421
2	LITCHFIELD BANTAUS RIVER	73 14.5	OP	0	344	1462	60.496	1421
	CT. LIGHT AND POWER	40	-65.5	50.0	344	1462		1421
CTCNED0081	BARKHAMSTED RS	41 54.6	S	0	0	0	119. 0	1236
2	LITCHFIELD E SR FAR R	72 57.1	OP	101000	750	4025	29.561	1236
	MDC	52	-103.4	135.0	750	4025		1236
CTCNED0071	COLEBRK RVLK	42 0.3	CRS	0	0	0	166.29	1257
2	LITCHFIELD W S FARM R	73 1.9	OP	132000	848	5155	32.253	1257
	DAEN NED	118	-229.9	60.0	848	5155		1257
CTCNED8518	COMPENSATING RIVER	41 52.6	S	45.0	0	0	104.31	1349
2	LITCHFIELD EAST BRANCH F	72 57.3	OP	0	465	2365	44.107	1349
	METROPOLITAIN DISTRICT	61	-119.2	45.0	465	2365		1349
CTYNED0501	CT NDNAME THIRTEEN	41 39.6	D	100.0	0	0	3453.9	1306
2	LITCHFIELD HOUSATONICRIV	72 29.3	OP	0	19981	91419	37.781	1306
	CT LIGHT AND POWER	993	-1766.7	100.0	19981	91419		1306
CTMNED0078	CTNDNAME FORTN	41 33.9	O	0	0	0	332.82	1295
2	LITCHFIELD HOUSATONIC	73 24.5	DP	700	1567	8975	37. 79	1295
	KIMBERLY CLARK INC.	1120	-1892.6	12.0	1567	8975		1295
CTGNED8008	GREAT FALLS \FALLS VILLAGE'	41 56.4	H	30.0	9000	39500	139.16	1068
2	LITCHFIELD HDUSATDNICRIV	73 20.9	DP	0	2858	-18675	7.4516	1068
	HARTFORD ELECTRIC LIGHT	632	-1095.6	30.0	11858	20824		1068
CTCNED0079	NEPAUG RES370	41 49.6	S	0	0	0	82.434	1320
2	LITCHFIELD NEPAUG RIV	72 56.5	DP	57120	387	2073	39.752	1320
	MDC	31	-51.4	113.0	387	2073		1320

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC-COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)	
CTGNED8010	ROBERTSVILLE DAM	41 58.2	H	15.0	500	1700	46,339	1403	
2	LITCHFIELD STILL RIVER	73 2.3	OP	0	329	-812	57. 6		1403
	CT LIGHT +POWER	47	-94.2	15.0	829	887			1403
CTCNED8511	SHEPAUG RESERVOIR	41 43.2	S	62.0	0	0	111.97	1454	
2	LITCHFIELD SHEPAUG RIVER	73 17.6	OP	0	382	1675	66.850		1454
	WATERBURY WATER DEPT	38	-61.9	62.0	382	1675			1454
CTMNED0502	SPOONER DAM	41 40.8	O	17.0	0	0	265.11	1245	
2	LITCHFIELD HOUSATONICRIV	73 30.6	OP	0	1425	8654	30.634		1245
	NORTHEAST UTILITIES	781	-1353.9	17.0	1425	8654			1245
CTCNED9073	THOMASTON DAM	41 41.7	C	0	0	0	115.43	1384	
2	LITCHFIELD NAUGTUCK R	73 3.7	OP	63000	415	2254	51.195		1384
	DAEN NED	97	-189.3	28.5	415	2254			1384
CTANED8503	MAMMONASSET DAM	41 21.3	S	60.0	0	0	94.308	1512	
2	MIDDLESEX MAMMONASSET R	72 36.6	OP	0	251	1139	82.733		1512
	NEW HAVEN WATER CO.	20	-41.9	60.0	251	1139			1512
CTGNED8013	CONE POND	41 20.9	H	30.0	760	3100	20.597	1062	
2	NEW HAVEN NAUGATUCK RIV	73 5.4	OP	0	233	2981	6.9093		1062
	AMERICAN BRASS CO.	300	-577.9	30.0	993	6081			1062
CTMNED0137	KINNEYTOWNDAM	41 22.0	O	0	0	0	191.25	1222	
2	NEW HAVEN NAUGATUCKR	73 5.1	OP	740	1275	6969	27.440		1222
	AMERICAN BRASS CO.	300	-577.9	30.0	1275	6969			1222
CTONED0500	LAKE HOUSATONIC	41 19.7	O	35.0	0	0	407.97	1110	
2	NEW HAVEN LAKE HOUSATON	73 5.9	OP	0	5743	34386	11.864		1110
	HULL DYE AND PRINT WORKS	1574	-2659.9	35.0	5743	34386			1110
CTCNED0128	RIMMON POND	41 23.5	R	0	0	0	191.25	1223	
2	NEW HAVEN NAUGATCKRV	73 4.9	OP	0	1275	6969	27.440		1223
	CITIES SERVICE CO.	300	-577.9	30.0	1275	6969			1223

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENR INC.ENERG TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
CTANED0162	CTNONAME 36	41 36.5	R	0	0	0	272.1	1334
2	NEW LONDON QUINEBAUG	71 59.1	OP	3300	1158	6537	41.608	1334
	WYRE WYNE	650	-1156.4	13.0	1158	6537		1334
CTANED8524	FALLS MILDM NO. 13	41 32.1	O	25.0	0	0	129.29	1448
2	NEW LONDON YANTIC	72 4.8	OP	0	467	1970	65.599	1448
	UNKNOWN	97	-175.6	25.0	467	1970		1448
CTGNED8011	OCCUM DAM	41 35.9	H	12.0	800	3500	38.246	1196
2	NEW LONDON SHETUCKET RIV	72 3.0	OP	0	270	1545	24.754	1196
	CITY OF NORWICH	465	-827.3	12.0	1070	5045		1196
CTGNED8004	TAFTVILLE	41 34.1	H	26.0	1760	5000	60.897	1085
2	NEW LONDON SHETUCKET RIV	72 3.0	OP	0	788	7012	8.6843	1085
	CT LIGHT AND POWER	511	-909.1	26.0	2548	12012		1085
CTCNED0173	MANSFLD-HOLLOW	41 45.9	CR	0	0	0	144.11	1495
2	TOLLAND NATCHAUG R	72 10.9	OP	80000	390	1855	77.669	1495
	DAEN NED	159	-281.0	15.0	390	1855		1495
CTCNED9065	WILLIMANTIC RE	41 44.4	S	0	0	0	148.67	1417
2	TOLLAND NATCHAUG R	72 11.7	OP	0	530	2520	58.981	1417
	CITY WILLIMANTIC	162	-286.4	20.0	530	2520		1417
CTANED8527	AMER TH DAM W14	41 43.3	O	15.0	0	0	166.21	1446
2	WINDHAM WILLAMANTIC R	72 12.8	OP	0	520	2550	65.165	1446
	AMERICAN THREAD	225	-397.7	15.0	520	2550		1446
CTMNED0198	AMER TH DMW12	41 42.8		0	0	0	173.47	1367
2	WINDMAM WILLAMANTC	72 11.9	OP	0	728	3492	49.668	1367
	AMERICAN THREAD CO.	226	-399.5	20.0	728	3492		1367
CTMNED0199	AMER TH DMW13	41 42.7		0	0	0	173.36	1368
2	WINDHAM WILLAMANTC	72 12.1	OP	0	727	3487	49.704	1368
	AMEICIAN THREAD CO.	225	-399.0	20.0	727	3487		1368

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
CTCNED8526	CARGILL FALLS	41 55.1	O	28.0	0	0	126.20	1386
2	WINDHAM FRENCH RIVER	71 54.2	OP	0	494	2456	51.373	1386
	UNKNOWN	111	-189.1	28.0	494	2456		1386
CTCNED8523	CT NONAME TEN	41 56.8	O	21.0	0	0	124.16	1455
2	WINDHAM FRENCH RIVER	71 52.9	OP	0	376	1854	66.966	1455
	ACME BLEACHISE CO.	111	-189.1	21.0	376	1854		1455
CTMNED0208	CTNONAME NINE	41 55.4	O	0	0	0	178.42	1423
2	WINDHAM QUINEBAUG	71 54.4	OP	176	548	2912	61.263	1423
	UNKNOWN	289	-478.8	14.0	548	2912		1423
CTANED0213	CTNONAME 26	41 48.1	R	0	0	0	212. 9	1391
2	WINDHAM QUINEBAUG	71 53.1	OP	300	777	3994	53. 91	1391
	RACHELLE RAJAK	384	-667.2	14.0	777	3994		1391
CTMNED0206	ROGERS CORP OA	41 50.5	O	0	0	0	205.55	1485
2	WINDHAM QUINEBAUG	71 54.8	OP	120	529	2758	74.510	1485
	ROGERS CORP.	377	-655.0	10.0	529	2758		1485
CTMNED0195	ROSENFLD OMPU1	41 55.4		0	0	0	179.63	1392
2	WINDHAM QUINEBAUGR	71 54.0	OP	0	636	3352	53.576	1392
	METALS FELLING CORP.	289	-478.8	16.0	636	3352		1392
CTCNED0192	W. THOMPSON LK	41 56.6	CR	0	0	0	146. 4	1432
2	WINDHAM QUINBAUG R	71 54.0	OP	40000	450	2333	62.583	1432
	DAEN NED	173	-295.6	17.5	450	2333		1432

MAINE

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. POL. (AC FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) (MILL/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)	
MEANED5031	AUBURN DAM	44 4.9		0	0	0	333.57	1213	
2	ANDROSCOGGIN LT ANDROSG	70 14.8	OP	0	4746	12734	26.236	1213	
	LITTLE HYERS WATER POWER CO	350	-527.7	3.0	4746	12734			1213
MEANED5029	BARKER MILL LO	44 4.9	O	0	0	0	364.20	1169	
2	ANDROSCOGGIN LT ANDROSG	70 13.0	OP	0	6370	17063	21.343	1169	
	H+L RUSSELL CO.	350	-527.7	51.0	6370	17063			1169
MEANED5030	BARKER MILL UP	44 4.0	O	0	0	0	326.10	1226	
2	ANDROSCOGGIN LT ANDROSG	70 14.8	OP	0	4303	11528	28.286	1226	
	H+L RUSSELL CO.	335	-505.1	36.0	4303	11528			1226
MEGNED8002	DEER RIPS	44 8.4	H	36.0	6540	27000	138.52	1025	
2	ANDROSCOGGIN ANDROSCOGGIN	70 11.9	OP	0	1982	37636	3.6804	1025	
	CENTRAL MAINE POWER CO.	2900	-5474.3	36.0	8522	64636			1025
MEGNED8003	GULF ISLAND	44 9.0	H	56.0	19200	123000	716.61	1287	
2	ANDROSCOGGIN ANDROSCOGGIN	70 12.6	OP	0	7904	20044	35.750	1287	
	CENTRAL MAINE POWER CO.	2860	-5398.8	56.0	27104	143044			1287
MEGNED8046	LEWISTON CANAL	44 5.9	H	54.0	15088	70812	52.231	1001	
2	ANDROSCOGGIN ANDROSCOGGIN	70 13.1	OP	0	1876	44553	1.1723	1001	
	7 POWER PLANTS ALONGCANAL	2900	-5474.3	54.0	16964	115365			1001
MEGNED8062	MAX MILLER+ CO.	43 59.4	H	10.0	900	4500	56.849	1078	
2	ANDROSCOGGIN ANDROSCOGGIN	70 3.5	OP	0	447	6816	8.3394	1078	
	UNKNOWN	3370	-6361.5	10.0	1347	11316			1078
MEGNED8006	OTIS	44 28.8	H	24.0	2730	4400	30.270	1002	
2	ANDROSCOGGIN ANDROSCOGGIN	70 11.9	OP	0	532	24028	1.2597	1002	
	INTERNATIONAL PAPER CO.	2490	-4527.5	24.0	3262	28428			1002
MEANED5032	ROGERS FIBER C	44 5.2		0	0	0	289.78	1524	
2	ANDROSCOGGIN LT ANDROSG	70 19.9	OP	75	1216	3259	88.896	1524	
	UNKNOWN	310	-467.4	11.0	1216	3259			1524

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE OR AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
ME6NED7022	BANCROFT	45 40.6	H	35.0	0	0	334.10	2005
2	AROOSTOOK MATTAWAMKEAG	68 1.4	IS	20000	3718	19942	16.753	2005
		920	-1656.0	30.0	3718	19942		2005
ME6NED7003	BIG BLACK RESERVOIR	46 55.2	H	75.0	0	0	1017.4	2028
2	AROOSTOOK BIG BLACK RIV	69 35.3	IS	250000	10859	29962	33.957	2028
		539	-838.0	66.0	10859	29962		2028
MEGNED8067	CARIBOU DAM	46 50.9	H	15.0	800	5000	40.561	1108
2	AROOSTOOK AROOSTOOK RIV	68 0.0	OP	0	347	3480	11.654	1108
	MAINE PUBLIC SERVICECO.	1931	-3135.0	15.0	1147	8460		1108
ME6NED7079	DICKEY/LINCOLN SCHOOL LAKES-	47 5.9	HC	335.0	0	0	53235	2048
2	AROOSTOOK ST. JOHN RIVE	69 1.1	FP	0	760000	1183000	45. 0	2046
	OAEN NEO	2725	4600.0	0	760000	1183000		2046
ME6NED7080	DICKEY/LINCOLN SCHOOL LAKES-	47 10.0	H	90.0	0	0	11835	2049
2	AROOSTOOK ST. JOHN RIVE	68 55.0	FP	0	70000	263000	45. 0	2047
	OAEN NED	4086	6600.0	0	70000	263000		2047
MEANED5072	LTL MADAWASK D	46 52.0		0	0	0	168.69	1289
2	AROOSTOOK L MADWSK R	67 56.9	OP	0	1089	4637	36.377	1289
	USAF	250	-432.9	32.0	1089	4637		1289
ME6NED7006	MASARDIS	46 29.4	H	100.0	0	0	790.73	2009
2	AROOSTOOK AROOSTOOK RIV	68 24.5	IS	540000	9533	36145	21.876	2009
		601	-975.7	85.0	9533	36145		2009
ME6NED7021	PLEASANT LAKE	46 1.0	H	30.0	0	0	107.26	2090
2	AROOSTOOK EAST BR. MATT	68 7.5	IS	2200	346	1363	78.646	2087
		79	-133.3	26.0	346	1363		2087
MEANED5071	SHERIDAN DAM	46 39.4		0	0	0	258.55	1416
2	AROOSTOOK AROOSTOK R	68 24.1	OP	0	893	4432	58.325	1416
	INTERNATIONAL PAPER	1320	-2143.0	6.5	893	4432		1416

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENRG TOT.ENRG (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MEINED8033	SQUAPAN LAKE	46 33.5	H	30.0	1500	[illegible]	78,535	1075
2	AROOSTOOK SQUAPAN LAKE	68 19.7	OP	0	542	-[illegible]	8, 230	1075
	MAINE PUBLIC SERVICECO.	69	-116.5	30.0	2042	2196		1075
MEANED8513	WHITNEY BROOK DAM	46 30.0	O	27.0	0	0	115.32	1472
2	AROOSTOOK PRESQUE INLAN	68 7.0	OP	0	418	1617	71,278	1472
	UNKNOWN	90	-151.9	27.0	418	1617		1472
MEGNED8001	BRUNSWICK	43 55.2	H	17.0	1473	10520	86,132	1094
2	CUMBERLAND ANDROSCOGGIN	69 58.1	OP	0	885	9289	9.2719	1094
	CENTRAL MAINE POWER CO.	3470	-6550.3	17.0	2358	19809		1094
MEGNED8047	CABOT MANUFACTURING CO.	43 55.2	H	38.0	12000	90000	83,358	1140
2	CUMBERLAND ANDROSCOGGIN	69 56.9	OP	0	1952	5154	16,170	1140
	PEJEPSCOT PAPER CO.	3410	-6437.0	38.0	13952	95154		1140
ME6NED7066	HIGHLAND RIPS	43 48.7	H	5.0	0	0	229.50	2071
2	CUMBERLAND SACO RIVER	70 46.9	IS	200	707	4264	53,817	2068
		1310	-2746.3	4.0	707	4264		2068
MECNED5100	STANDISH DAM	43 49.7		0	0	0	389.73	1183
2	CUMBERLAND EELWEIR CA	70 27.4	OP	249700	6238	16710	23.322	1183
	PRESUMP WATER AND POWER CO.	437	-658.9	40.0	6238	16710		1183
MEGNED8053	WESTBROOK DAM TWO	43 40.8	H	28.0	1350	8500	11.989	1031
2	CUMBERLAND PRESUMPSCOT R	70 22.8	OP	0	155	2895	4.1412	1031
	S.D.WARRENCO.	551	-830.7	28.0	1505	11395		1031
ME6NED7052	ABOVE PHILLIPS	44 50.5	H	30.0	0	0	147.12	2073
2	FRANKLIN SANDY RIVER	70 20.9	IS	500	678	2621	56.125	2070
		131	-271.7	26.0	678	2621		2070
MEANED8526	CENTRAL MAINE POWER CO.	45 6.5	O	24.0	0	0	168.76	1385
2	FRANKLIN KENNEBAGO LAK	70 46.0	OP	0	850	3290	51.283	1385
	UNKNOWN	112	-267.5	24.0	850	3290		1385

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MECNED5138	CNTL ME PWR CO	45 6.1		0	0	0	190. 7	1345
2	FRANKLIN KNNEBGO R	70 46.6	OP	315	1123	4411	43. 84	1345
	RANGELY POWER CO.	146	-348.8	25.0	1123	4411		1345
MEONED5137	KENNEBGO R.	45 3.3		0	0	0	186.70	1274
2	FRANKLIN KNNEBGO R	71 8.1	OP	105	1339	5454	34.230	1274
	BLACKBURN AND BAIRO	146	-348.8	32.0	1339	5454		1274
ME6NED7053	MAPLEWOOD	44 44.3	H	24.0	0	0	167.99	2074
2	FRANKLIN SANDY RIVER	70 12.0	IS	5000	732	2971	56.542	2071
		190	-385.0	20.0	732	2971		2071
MEANED5149	N BR DEAD.R DM	45 13.0		16.0	0	0	169.91	1433
2	FRANKLIN NBRDEAD R	70 28.6	OP	540	610	2714	62.588	1433
	EUSTIS MANUFACTURINGCO.	236	-478.2	16.0	610	2714		1433
MEMNED5001	OTIS	44 30.0	O	24.0	0	0	3442.8	1372
2	FRANKLIN ANDROSCOGGIN	70 13.1	OP	0	39589	68820	50. 26	1372
	UNKNOWN	2490	-4527.5	24.0	39589	68820		1372
MEANED9075	RILEY INTER PA	44 30.1	O	0	0	0	3374.9	1364
2	FRANKLIN ANDROSCOGN	70 19.1	OP	720	40410	70248	48. 43	1364
	INTERNATIONAL PAPER	2440	-4436.6	25.0	40410	70248		1364
MEONED5002	GRAHAM LAKE	44 35.3	O	23.0	0	0	219.31	1227
2	HANCOCK GRAHAM LAKE	68 26.4	OP	0	1388	7717	28.419	1227
	BANGOR HYDRO	452	-766.3	23.0	1388	7717		1227
ME6NED7009	MARIAVILLEFALLS	44 47.0	H	45.0	0	0	166.45	2024
2	HANCOCK WEST BRANCH U	68 23.2	IS	8000	1212	4955	33.589	2024
		150	-275.8	38.0	1212	4955		2024
MEMNED9074	AMRCNTSSUEMILL	44 13.5		0	0	0	315. 8	1322
2	KENNEBEC CBBSSCNTST	69 46.9	OP	2812	4113	7864	39.964	1322
	AMERICIAN TISSUE MILLS	220	-349.1	37.0	4113	7884		1322

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MEGNED8065	AUTOMATIC CMP	44 32.9	H	26.0	800	2820	27.308	1148
2	KENNEBEC MESSALONSKEE	69 38.3	OP	0	307	1508	18.107	1148
	CENTRAL MAINE POWER CO.	205	-325.3	26.0	1107	4328		1148
MEGNED8022	FORT HALIFAX	44 32.3	H	25.0	1500	6808	29.857	1057
2	KENNEBEC SEBASTICOOK R	69 37.8	OP	0	390	4694	6.3601	1057
	CENTRAL MAINE POWER CO.	975	-1627.5	25.0	1890	11502		1057
MEGNED8052	MESSALONSKEE TWO	44 32.3	H	67.0	2800	10400	156. 6	2110
2	KENNEBEC MESSALONSKEE	69 43.1	OP	0	1892	505	308.70	2107
	UNKNOWN	175	-277.7	67.0	4692	10905		2107
MEGNED8020	RICE RIPS	44 34.1	H	50.0	1600	5155	27.704	1088
2	KENNEBEC MESSALONSKEE	69 41.4	OP	0	529	3168	8.7443	1088
	CENTRAL MAINE POWER CO.	205	-325.3	50.0	2129	8323		1088
MEGNED8011	SCOTT PAPER COMPANY	44 33.5	H	29.0	3730	26109	20.441	1010
2	KENNEBEC KENNEBEC	69 37.1	OP	0	503	9735	2. 995	1010
	SCOTT PAPER CO.	4270	-7114.3	29.0	4233	35844		1010
MEGNED8012	SHAWMUT	44 37.8	H	27.0	4650	43243	26.356	1317
2	KENNEBEC KENNEBEC RIVE	69 34.7	OP	0	525	-670	39.312	1317
	CENTRAL MAINE POWER CO.	4250	-7081.0	27.0	5175	42572		1317
MEMNED5004	SNOW POND	44 32.3	O	25.0	0	0	274.30	1444
2	KENNEBEC MESSALONSKEE	69 43.1	OP	0	2211	4237	64.735	1444
	CENTRAL MAINE POWER CO.	175	-277.7	25.0	2211	4237		1444
MEANED8505	SPEARS MILL DAM	44 11.7	O	20.0	0	0	246.30	1510
2	KENNEBEC COOBOSEECONTE	69 54.0	OP	0	1556	2983	82.570	1510
	UNKNOWN	154	-244.4	20.0	1556	2983		1510
MEGNED8019	UNION GAS	44 32.3	H	39.0	1500	3900	9.5240	1024
2	KENNEBEC MESSALONSKEE	69 39.0	OP	0	161	2592	3.6741	1024
	CENTRAL MAINE POWER CO.	205	-325.3	39.0	1661	6492		1024

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HO. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MEMNED5003	YORKTOWN PAPER MILL	44 13.8	O	18.0	0	0	302.86	1498
2	KENNEBEC COBBOSSEECONT	69 47.3	OP	0	2001	3835	78.967	1498
	AMERICAN TISSUE	220	-349.1	18.0	2001	3835		1498
MEONED8538	CRAWFORD POND OUT 2	44 11.2	O	40.0	0	0	76.476	1525
2	KNOX CRAWFORD POND	69 16.0	OP	0	224	880	86.899	1525
	UNKNOWN	30	-54.6	40.0	224	880		1525
MEONED5211	SENEBEC PDDUT	44 13.9		0	0	0	227.59	1413
2	KNDX SENEBEC PD	69 16.8	OP	13550	2051	3932	57.881	1413
	DEPOSITORSTRUST CO.	116	-184.1	35.0	2051	3932		1413
MECNED5269	AZISCOHOS DAM	44 56.6	C	0	0	0	162.89	1160
2	OXFORD MAGALLOWAY	70 59.8	OP	233405	1559	8167	19.943	1160
	ANDRDSCOGGIN RESERVOIR CO.	215	-497.3	55.0	1559	8167		1160
ME6NED7062	DIXFIELD	44 33.0	H	20.0	0	0	135.69	2098
2	OXFORD WEBB RIVER	70 27.5	IS	20000	405	1636	82.903	2095
		125	-259.2	17.0	405	1636		2095
ME6NED7065	HIRAM SITEND.2	43 53.8	H	5.0	0	0	177.49	2080
2	OXFORD SACO RIVER	70 49.2	IS	10000	429	2597	68.343	2080
		795	-1666.6	4.0	429	2597		2080
MECNED5270	M DM UN WTR PR	44 46.5	O	0	0	0	644.57	1182
2	OXFORD RCHDSN LKS	70 54.7	OP	149238	12701	27700	23.269	1182
	UNION WATER POWER CO.	509	-931.0	47.0	12701	27700		1182
MEGNED8007	MIDDLE	44 32.3	H	97.0	21970	153000	1139.5	1363
2	OXFORD ANDROSCOGGIN	70 33.0	OP	0	8013	23861	47.757	1363
	RUMFORD FALLS POWER CO	2090	-3800.2	97.0	29983	176861		1363
ME6NED7058	PLEASANT RIVER	44 24.2	H	5.0	0	0	607.88	2091
2	OXFORD ANDROSCOGGIN	70 52.2	IS	500	4425	7693	79. 12	2088
		1670	-3036.5	4.0	4425	7693		2088

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MEANED5271	RICH UPPER	44 52.9		0	0	0	434.57	1350
2	OXFORD RAPID R.	70 51.8	OP	220138	4515	9847	44.128	1350
	UNION WATER DOVER CO.	405	-740.8	21.0	4515	9847		1350
MEMNED5005	SWAN FALLS	44 2.3	O	10.0	0	0	231. 5	1406
2	OXFORD SACO RIVER	70 58.8	OP	0	717	4038	57.214	1406
	SWAN FALLSCORP.	516	-1247.1	10.0	717	4038		1406
ME6NED7060	6RYE	44 37.5	H	135.0	0	0	145.38	2010
2	OXFORD SWIFT RIVER	70 34.9	IS	15000	1053	6412	22.670	2010
		120	-248.8	115.0	1053	6412		2010
MEGNED8035	BANGOR HYDRO - ORONO	44 49.7	H	28.0	2332	18000	263.87	1053
2	PENOBSCOT STILLWATERRIV	68 41.9	OP	0	4711	43616	6. 497	1053
	BANGOR HYDRO	7710	-13802.8	28.0	7043	61616		1053
MEGNED8036	BANGOR HYDRO - STILLWATER	44 54.0	H	20.0	1950	13900	193.42	1058
2	PENOBSCOT STILLWATERRIV	68 40.7	OP	0	3080	30112	6.4235	1058
	BANGOR HYDRO	7710	-13802.8	20.0	5030	44012		1058
MEGNED8060	BANGOR HYDRO	44 56.4	H	25.0	6400	52000	138.13	1069
2	PENOBSCOT PENOBSCOT RIV	68 39.0	OP	0	1702	18460	7.4826	1069
	BANGOR HYDRO	7380	-13212.1	25.0	8102	70460		1069
MEMNED5006	BANGOR HYDRO	44 57.0	O	5.0	0	0	2155.4	1378
2	PENOBSCOT STILLWATERRIV	68 41.9	OP	0	18117	42475	50.745	1378
	BANGOR HYDRO	7606	-13616.7	5.0	18117	42475		1378
ME6NED7033	BASIN MILLS	44 51.9	H	6.0	0	0	2185.2	2062
2	PENOBSCOT PENOBSCOT RIV	68 40.3	IS	300	18365	43057	50.752	2060
		7710	-13802.8	5.0	18365	43057		2060
ME6NED7013	BEAR RAPIDS	45 47.5	H	30.0	0	0	548.74	2007
2	PENOBSCOT EAST BRANCH P	68 35.4	IS	12000	3593	18687	18.661	2007
		970	-1746.1	26.0	3593	18687		2007

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ME6NED7032	BRADFORD	45 1.5	H	20.0	0	0	116.15	2100	
2	PENOBSCOT PUSHAW STREAM	68 49.0	IS	5000	293	1310	88.635	2097	
		94	-172.8	17.0	293	1310			2097
MEMNED5304	CITY OF BANGOR	44 48.5		0	0	0	6947.5	1361	
2	PENOBSCOT PENOBSCOT	68 44.5	OP	2405	62847	147339	47.153	1361	
	CITY OF BANGOR	7760	-13892.4	17.0	62847	147339			1361
MEGNED8059	DIAMOND INTERNATIONAL	44 55.2	H	17.0	4680	20000	66.165	1011	
2	PENOBSCOT PENOBSCOT RIV	68 37.8	OP	0	752	27271	2.4262	1011	
	DIAMOND INTERNATIONAL	7380	-13212.1	17.0	5432	47271			1011
MEINED8042	OOLBY	45 37.8	H	54.0	14100	94500	238.11	2107	
2	PENOBSCOT OOLBY POND	68 36.6	OP	0	6704	-1280	186. 0	2104	
	GREAT NORTHERN PAPERCO.	2080	-3744.2	54.0	20804	93219			2104
MEGNED8041	EAST MILLINOCKET-MILL TWO	45 37.1	H	29.0	7370	46300	170.64	1389	
2	PENOBSCOT WEST BRANCH P	68 34.7	OP	0	3477	3254	52.435	1389	
	GREAT NORTHERN PAPERCO.	2086	-3755.0	29.0	10847	49554			1389
ME6NED7028	GRAND FALLS	45 10.1	H	60.0	0	0	162.40	2006	
2	PENOBSCOT PASSADUMKEAG	68 17.4	IS	600000	1450	8801	18.452	2006	
		200	-339.0	51.0	1450	8801			2006
MEANED5316	GRAND LAKEDAM	46 8.5		25.0	0	0	199. 9	1217	
2	PENOBSCOT GR L MTGMN	68 47.5	OP	35000	1235	7466	26.665	1217	
	EAST BRANCH IMPROVEMENT CO.	470	-846.0	25.0	1235	7466			1217
ME6NED7015	LEDGE FALLS	45 37.4	H	20.0	0	0	684.30	2031	
2	PENOBSCOT EAST BRANCH P	68 32.4	IS	8000	6481	19114	35.799	2031	
		1100	-1980.1	17.0	6481	19114			2031
MEANED5312	LINCOLN PLPPPR	45 11.8		0	0	0	175.18	1315	
2	PENOBSCOT PASSADMKG	68 27.7	OP	0	803	4468	39.201	1315	
	LINCOLN PULP AND PAPER CO.	301	-510.3	20.0	803	4468			1315

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
ME6NED7031	MARSH ISLAND	44 53.3	H	15.0	0	0	6617.6	2077
2	PENOBSCOT PENOBSCOT RIV	68 39.0	IS	1000	46325	108608	60.930	2074
		7480	-13391.1	13.0	46325	108608		2074
ME6NED7014	MEADOW BROOK	45 41.5	H	20.0	0	0	684.30	2033
2	PENOBSCOT EAST BRANCH P	68 35.1	IS	4000	6481	19092	35.840	2033
		1100	-1980.1	17.0	6481	19092		2033
MEINED8043	NORTH TWIN	45 37.8	H	37.0	8200	43000	160.94	1111
2	PENOBSCOT CHESUNCOOKLAK	68 46.8	OP	0	4167	13495	11.925	1111
	UNKNOWN	1864	-3355.4	37.0	12367	56495		1111
ME6NED7011	POND PITCH	46 4.3	H	94.0	0	0	1199.9	2012
2	PENOBSCOT EAST BRANCH P	68 45.9	IS	70000	17190	50818	23.612	2012
		620	-1116.0	80.0	17190	50818		2012
MEGNED8040	ROCKABEMA-MEDWAY	45 36.5	H	24.0	3440	34000	55.413	1132
2	PENOBSCOT WEST BRANCH P	68 33.0	OP	0	1346	-3684	15. 40	1132
	BANGOR HYDRO	2100	-3780.2	24.0	4786	30315		1132
ME6NED7029	SAPONAC	45 10.3	H	15.0	0	0	161. 8	2078
2	PENOBSCOT PASSADUMKEAG	68 24.4	IS	25000	443	2605	61.827	2075
		272	-461.1	13.0	443	2605		2075
ME6NED7038	SEBOEIS	45 20.8	H	20.0	0	0	121.58	2082
2	PENOBSCOT SEBOEIS STREA	68 42.4	IS	15000	323	1796	67.664	2079
		138	-233.9	17.0	323	1796		2079
ME6NED7030	SPENCER RAPIDS	45 6.3	H	5.0	0	0	1662.0	2066
2	PENOBSCOT PENOBSCOT RIV	68 38.6	IS	2000	13625	31949	52. 20	2063
		7150	-12800.3	4.0	13625	31949		2063
MEGNED8037	STANFORD DAM	45 15.5	H	20.0	3800	29000	28.864	1017
2	PENOBSCOT PENOBSCOT RIV	68 38.3	OP	0	558	9132	3.1607	1017
	BANGOR HYDRO	6680	-11958.9	20.0	4358	38132		1017

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ME6NED7012	*HETSTONE	45 51.9	H	190.0	0	0	2215.4	2002
2	PENOBSCOT EAST BRANCH P	68 37.4	IS	1100000	53733	161427	13.723	2002
		957	-1722.7	162.0	53733	161427		2002
ME6NED7034	ABOVE FOXCROFT	45 10.7	H	20.0	0	0	205.25	2059
2	PISCATAQUIS PISCATAQUIS R	69 15.6	IS	1000	943	4169	49.223	2057
		350	-710.1	17.0	943	4169		2057
ME6NED7035	ABOVE MILO	45 15.7	H	15.0	0	0	201.31	2070
2	PISCATAQUIS SEBIC RIVER	69 0.4	IS	9000	689	3809	52.841	2067
		390	-848.8	13.0	689	3809		2067
ME6NED7019	DEBSCONEAG	45 46.9	H	20.0	0	0	449.32	2011
2	PISCATAQUIS WEST BRANCH P	68 56.2	IS	30000	3756	19754	22.744	2011
		1580	-2844.1	17.0	3756	19754		2011
MEGNED8068	DOVER-FOXCROFT ONE	45 10.8	H	22.0	854	680	57.264	1106
2	PISCATAQUIS PISCATAQUIS R	69 13.8	OP	0	636	5274	10.856	1106
	AMERICAN WOOLEN CO.,INC.	352	-714.2	22.0	1490	5954		1106
MEMNED5337	OVR FXCFT TWO	45 10.9		0	0	0	204.37	1388
2	PISCATAQUIS PISCTQS R	69 13.1	OP	78	892	3945	51.802	1388
	TOWNS OF DOVER-FOXCROFT	352	-714.2	16.0	892	3945		1388
MEANED5328	OVR FXCT WT DT	45 10.9		0	0	0	206.58	1466
2	PISCATAQUIS PISCTQS R	69 13.8	OP	390	669	2959	69.816	1466
	TOWNS OF DOVER-FOXCROFT	352	-714.2	12.0	669	2959		1466
ME6NED7036	EBEEMEE LAKE	45 25.3	H	25.0	0	0	112.47	2093
2	PISCATAQUIS EAST BR. PLEA	69 1.9	IS	28750	326	1410	79.737	2090
		87	-176.5	21.0	326	1410		2090
ME6NED7016	FOXHOLE RIPS	45 57.8	H	39.0	0	0	328.90	2003
2	PISCATAQUIS WEST BRANCH P	69 31.4	IS	800000	3973	21892	15. 23	2003
		750	-1164.5	33.0	3973	21892		2003

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MEANED8524	GUILFORD DAM	45 9.3	O	12.0	0	0	180.1	1508		
2	PISCATAQUIS PISCATAQUIS R	69 22.6	OP	0	511	2192	82.103		1508	
	UNKNOWN	253	-513.3	12.0	511	2192				1508
MEANED5330	MILO EL LGHT P	45 15.1		0	0	0	210.96	1260		
2	PISCATAQUIS SEBEC R	68 59.3	OP	0	1246	6465	32.631		1260	
	BANGOR HYDROELECTRICCO.	371	-807.4	22.0	1246	6465				1260
MEANED5334	MSHD L E OUTLT	45 35.2		0	0	0	946.67	1395		
2	PISCATAQUIS MOSEHEAD L	69 42.9	OP	714980	8154	17073	55.445		1395	
	KENNEBUNC LOG DRIVING CO.	1240	-1925.4	14.0	8154	17073				1395
ME6NED7020	PASSAMAGORMAC FALLS	45 45.0	H	8.0	0	0	304.68	2043		
2	PISCATAQUIS WEST BRANCH P	68 55.9	IS	5000	1249	7325	41.593		2041	
		1590	-2862.1	7.0	1249	7325				2041
MEINED8044	RIPOGENUS DAM	45 52.8	H	192.0	37530	100000	210.35	1006		
2	PISCATAQUIS CHESUNCOOKLAK	69 10.7	OP	0	9840	112254	1.8738		1006	
	UNKNOWN	1332	-2397.7	192.0	47370	212254				1006
MEONED5341	SEBEC	45 16.1		0	0	0	207.78	1411		
2	PISCATAQUIS SEBEC LAKE	69 7.0	OP	56000	806	3600	57.717		1411	
	BANGOR HYDROELECTRICCORP.	371	-752.7	14.0	806	3600				1411
MECNED5297	TELOS LK OUTLT	46 8.8		0	0	0	172.84	1166		
2	PISCATAQUIS TLS WBST L	69 7.6	OP	105200	1432	8148	21.210		1166	
	E BRIMPROVCO.	270	-587.6	42.0	1432	8148				1166
ME6NED7073	THE ARCHES	45 52.5	H	90.0	0	0	4475.6	2054		
2	PISCATAQUIS WEST BRANCH P	69 9.0	IS	********	21674	92994	48.127		2052	
		1415	-2547.1	77.0	21674	92994				2052
MEANED5340	TWN MILO MILOO	45 15.1		0	0	0	190.96	1451		
2	PISCATAQUIS SEBEC RVR	68 9.3	OP	612	495	2884	66.213		1451	
	TOWN OF MILO	407	-690.0	10.0	495	2884				1451

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ME6NED7010	WEBSTER LAKE	46 9.8	H	65.0	0	0	181.48	2004
2	PISCATAQUIS WEBSTER BROOK	69 3.3	IS	40000	1930	11219	16.176	2004
		288	-626.8	55.0	1930	11219		2004
MEGNED8061	CENTRAL MAINE POWER CO.	43 55.2	H	20.0	900	7280	51.131	1098
2	SAGADAHOC ANDROSCOGGIN	69 58.1	OP	0	547	5246	9.7463	1098
	CENTRAL MAINE POWER CO.	3430	-6474.8	20.0	1447	12526		1098
MEGNED8048	PEJEPSCOT PAPER CO.	43 57.6	H	23.0	2500	22000	38.781	1105
2	SAGADAHOC ANDROSCOGGIN	70 1.1	OP	0	537	3576	10.843	1105
	ANDROSCOGGIN WATER POWER CO.	3420	-6455.9	23.0	3037	25576		1105
MEGNED8014	ABENAKI \LOWER'	44 47.3	H	48.0	3650	46000	25.986	1021
2	SOMERSET KENNEBEC RIVE	69 53.3	OP	0	724	-7788	3.3363	1021
	KENNEBEC RIVER PULP AND PAPE	3230	-5323.9	48.0	4374	38211		1021
MESNED5353	ANDERSON MLS D	44 45.5	H	25.0	0	0	3084.4	1337
2	SOMERSET KENNEBEC R	69 42.4	IS	0	14877	72719	42.415	1337
	OLD MILL ANTIQUE SHOP	3950	-6581.2	25.0	14877	72719		1337
MEGNED8015	ANSON \UPPER'	44 47.9	H	25.0	6000	39160	71.950	1037
2	SOMERSET KENNEBEC RIVE	69 53.3	OP	0	881	15697	4.5834	1037
	KENNEBEC RIVER PULP AND PAPE	3230	-5323.9	25.0	6881	54857		1037
ME6NED7040	ATTEAN POND	45 35.3	H	18.0	0	0	188.97	2076
2	SOMERSET MOOSE RIVER	70 15.6	IS	110000	726	3284	57.552	2073
		278	-462.4	15.0	726	3284		2073
ME6NED7001	BAILEY BROOK DEADWATER	46 27.1	H	40.0	0	0	165.90	2025
2	SOMERSET BAKER BRANCH	69 56.1	IS	100000	1083	4928	33.662	2025
		244	-422.5	34.0	1083	4928		2025
MECNED5391	BRASSUA LKDAM	45 39.6		0	0	0	252.91	1153
2	SOMERSET BRASSUA LK	69 48.7	OP	217150	2266	13289	19. 30	1153
	BRASSUA ASSOCIATES	726	-1210.6	31.0	2266	13289		1153

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MECNED5397	CANADA LK FL D	45 52.3		0	0	0	75.22	1354
2	SOMERSET CNADA FL L	70 0.0	OP	26100	980	3840	45.624	1354
	GREAT NORTHEASTERN NEKOOSA C	189	-383.4	26.0	980	3840		1354
ME6NED7050	EAST MADISON	44 50.5	H	35.0	0	0	90.222	2097
2	SOMERSET WEST BRANCH W	69 43.3	IS	20000	271	1096	82.293	2094
		49	-95.1	30.0	271	1096		2094
MECNED8514	FLAGSTAFF LAKE DAM	45 14.0	D	63.0	0	0	130.59	1424
2	SOMERSET FLAGSTAFF LAK	70 11.9	OP	0	579	2129	61.322	1424
	UNKNOWN	45	-87.3	63.0	579	2129		1424
MEMNED5388	GILMAN ST DAM	44 55.0		0	0	0	148.40	1408
2	SOMERSET GILMAN ST	70 1.5	OP	114	690	2581	57.479	1408
	FRED O. SMITH MFG. CO.	134	-260.1	26.0	690	2581		1408
MEGNED8050	GREAT NORTHERN PAPERCO.	44 47.3	H	18.0	6000	42048	180.37	1261
2	SOMERSET KENNEBEC RIVE	69 53.3	OP	0	1523	5526	32.636	1261
	GREAT NORTHERN PAPERCO.	3230	-5323.9	18.0	7523	47574		1261
MECNED5384	GRTMOOSELKDAM	44 53.0		0	0	0	189.37	1366
2	SOMERSET GRTMOOSELK	69 27.2	OP	28230	966	3825	49.501	1366
	TOWN OF MARTLAND	235	-476.8	21.0	966	3825		1366
MEINED8018	MAMOS	45 27.6	H	149.0	76600	187037	782.81	1239
2	SOMERSET INDIAN POND	69 52.1	OP	0	30783	26292	29.773	1239
	CENTRAL MAINE POWER CO.	1382	-2261.3	149.0	107383	213329		1239
ME6NED7039	HOLEB FALLS	45 31.9	H	65.0	0	0	175.51	2008
2	SOMERSET MOOSE RIVER	70 21.0	IS	162500	1811	8567	20.485	2008
		208	-346.0	55.0	1811	8567		2008
ME6NED7041	MOOSE RIVER	45 37.0	H	17.0	0	0	216.26	2042
2	SOMERSET MOOSE RIVER	69 58.0	IS	3000	950	5321	40.641	2040
		569	-948.8	15.0	950	5321		2040

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MEANED8512	MOXIE PONDDAM	45 21.5	O	21.0	0	0	115.54	1523
2	SOMERSET MOXIE POND	69 51.8	OP	0	345	1343	86.26	1523
	UNKNOWN	89	-172.8	21.0	345	1343		1523
ME6NED7071	PIERCE POND	45 14.3	H	35.0	0	0	4287.2	2001
2	SOMERSET PIERCE POND S	70 3.0	IS	10000	220000	459000	9.3403	2001
		585	-975.5	690.0	220000	459000		2001
ME6NED7051	PITTSFIELD	44 45.0	H	10.0	0	0	198.55	2081
2	SOMERSET SABASTICOOK R	69 20.5	IS	40000	534	2904	68.358	2081
		578	-964.8	9.0	534	2904		2081
MEGNED8023	SANDY RIVER	44 43.8	H	17.0	500	3000	42.177	1165
2	SOMERSET SANDY RIVER	69 54.0	OP	0	331	1995	21.138	1165
	TOWN OF MADISON	619	-1166.0	17.0	831	4995		1165
MECNED5395	SEBOOMOOK L DM	45 54.6	C	0	0	0	597.69	1277
2	SOMERSET SBMOOK LK	69 44.1	OP	122995	8266	17309	34.529	1277
	GREAT NORTHERN PAPERCORP.	550	-854.0	32.0	8266	17309		1277
ME6NED7049	SOUTH MADISON	44 46.6	H	20.0	0	0	2462.9	2046
2	SOMERSET KENNEBEC RIVE	69 53.2	IS	350	22370	56121	43.886	2044
		3240	-5340.4	17.0	22370	56121		2044
ME6NED7043	STEEPSIDE	45 21.2	H	160.0	0	0	6235.6	2016
2	SOMERSET KENNEBEC RIVE	69 57.4	IS	12000	111348	221229	28.186	2016
		1570	-2568.9	136.0	111348	221229		2016
ME6NED7055	TAYLOR	44 55.4	H	20.0	0	0	164.85	2080
2	SOMERSET CARRABASSETT	70 7.5	IS	6000	601	2627	62.733	2077
		210	-425.5	17.0	601	2627		2077
ME6NED7046	THE FORKS	45 16.8	H	20.0	0	0	2431.5	2081
2	SOMERSET KENNEBEC RIVE	69 59.6	IS	1500	6647	37208	65.348	2078
		2470	-4041.5	17.0	6647	37208		2078

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MEMNED5382	TOWNOFPITTSFLD	44 47.7		0	0	0	196.89	1407		
2	SOMERSET SEBASTICKR	69 23.2	OP	3012	792	3432	57.365		1407	
	TOWN OF PITTSFIELD	320	-649.2	15.0	792	3432				1407
MEGNED8016	WILLIAMS STATION	44 57.6	H	45.0	13000	91901	153.63	1141		
2	SOMERSET KENNEBEC RIVE	69 52.1	OP	0	3198	9436	16.281		1141	
	CENTRAL MAINE POWER CO.	2740	-4516.2	45.0	16198	101337				1141
MEINED8017	WYMAN	45 4.1	H	143.0	72000	321152	121.42	1047		
2	SOMERSET WYMAN LAKE	69 54.5	OP	0	4809	21999	5.5193		1047	
	CENTRAL MAINE POWER CO.	2625	-4326.7	143.0	76809	343151				1047
MEMNED5423	BURNHAM HYDRO	44 43.3	O	0	0	0	196.79	1200		
2	WALDO SEBASTICKR	69 27.4	OP	3421	1293	7833	25.121		1200	
	BURNHAM HYDRO CO.	611	-1019.9	27.0	1293	7833				1200
MEMNED8548	JOHNSON AUTO	44 26.4	O	30.0	0	0	81.143	1535		
2	WALDO PASAGASAKEAN	69 3.5	OP	0	213	907	89.419		1535	
	JOSEPH JOHNSON	42	-69.9	30.0	213	907				1535
MEANED8504	TWIN FRANKFORT	44 35.8	O	19.0	0	0	143.41	1461		
2	WALDO NORTH BRANCH	68 51.3	OP	0	501	2090	68.592		1461	
	UNKNOWN	130	-239.0	19.0	501	2090				1461
MEGNED7078	COBSCOOK BAY TIDAL POWER PRO	44 54.0	H	150.0	0	0	54000	2096		
2	WASHINGTON COBSCOOK BAY	67 3.0	FP	0	200000	660000	81.818		2093	
	OAEN NED	400	886400.0	0	200000	660				2093
MEANED8500	DANFORTH	45 40.0	O	9.0	0	0	138.34	1532		
2	WASHINGTON BASKAHEGANSTR	67 52.0	OP	0	262	1561	88.570		1532	
	UNKNOWN	205	-353.3	9.0	262	1561				1532
MEMNED5469	E MACHIAS DAM	44 44.4	O	0	0	0	184.98	1440		
2	WASHINGTON E MACHIAS	67 23.3	OP	4290	539	2897	63.837		1440	
	TOWN OF EAST MACHIAS	286	-593.1	12.0	539	2897				1440

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
ME6NED7008	HOLMES FALLS	44 47.9	H	85.0	0	0	708.68	2014
2	WASHINGTON MACHIAS RIVER	67 40.6	IS	350000	8710	27271	25.986	2014
		300	-622.2	72.0	8710	27271		2014
MEANED5473	MACHIAS R LO 1	44 42.4	O	20.0	0	0	228.48	1243
2	WASHINGTON MACHIAS R	67 27.4	OP	0	1358	7483	30.530	1243
	ATLANTIC SALMON COMM.	455	-943.7	20.0	1358	7483		1243
MEANED5474	MACHIAS R D 2	44 42.6	O	20.0	0	0	229.24	1246
2	WASHINGTON MACHIAS R	67 26.8	OP	0	1366	7469	30.691	1246
	ATLANTIC SALMON COMM.	450	-933.3	20.0	1366	7469		1246
MEANED5476	MACHIAS R D 4	44 41.5	O	28.0	0	0	392.78	1208
2	WASHINGTON MACHIAS R	67 28.9	OP	0	4938	15146	25.932	1208
	ATLANTIC SALMON COMM.	450	-933.3	28.0	4938	15146		1208
MEMNED8541	MACHIAS RV. DAM 3	44 42.1	O	5.0	0	0	159.33	1516
2	WASHINGTON MACHIAS RIVER	67 30.0	OP	0	347	1883	84.600	1516
	UNKNOWN	450	-933.3	5.0	347	1883		1516
ME6NED7027	NICATOUS FALLS	45 9.2	H	45.0	0	0	118.92	2064
2	WASHINGTON NICATOUS STRE	68 14.6	IS	6000	576	2337	50.887	2061
		70	-128.7	38.0	576	2337		2061
MEANED8542	ORANGE RV.DAM 2	44 45.9	O	30.0	0	0	84.866	1464
2	WASHINGTON ORANGE RIVER	67 11.9	OP	0	236	1227	69.119	1464
	UNKNOWN	42	-88.5	30.0	236	1227		1464
MEANED5464	VANCEBORO DAM	45 34.0		0	0	0	215.83	1353
2	WASHINGTON ST CROIX R	67 35.6	OP	226400	797	4764	45.298	1353
	GEORGIAN PACIFIC CORP.	435	-749.7	13.0	797	4764		1353
MECNED8507	WEST GRANDLAKE OUTLET	45 11.2	O	14.0	0	0	154.24	1405
2	WASHINGTON BIG LAKE LOWE	67 47.3	OP	0	441	2697	57.180	1405
	UNKNOWN	240	-430.1	14.0	441	2697		1405

SITE ID NUMBER / ACTV. INV.	PROJECT NAME / PRIMARY CO. -NAME OF STREAM / OWNER	LATITUDE / LONGITUDE / DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. / STATUS / AVE. Q (CFS)	DAM HT / MX.STOR. / PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. / INC. CAP. / TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG / INC.ENERGY / TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST / ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC / ERC NONECONOMIC / ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MEGNED8031	WOODLAND	45 9.6	H	48.0	9000	30000	40.357	1003
2	WASHINGTON ST. CROIX RIV	67 24.0	OP	0	1239	31219	1.2926	1003
	GEORGIA PACIFIC CORP	1350	-2385.4	48.0	10239	61219		1003
MEGNED8028	BONNY EAGLE	43 41.4	H	37.0	7200	40916	221.39	1126
2	YORK SACO RIVER	70 36.6	OP	0	4856	16664	13.285	1126
	CENTRAL MAINE POWER CO.	1563	-3276.7	37.0	12056	57580		1126
MEGNED8024	CATARACT STATION	43 30.0	H	40.0	6650	38778	106.73	1080
2	YORK SACO RIVER	70 26.4	OP	0	1354	12653	8.4352	1080
	CENTRAL MAINE POWER CO.	1700	-3563.9	40.0	8004	51431		1080
MEINED8064	ESTES LAKEDAM	43 25.2	H	36.0	746	3830	22.586	2106
2	YORK ESTES LAKE	70 40.2	OP	0	288	-122	184.76	2103
	LAWRENCE KEDDY	106	-183.0	36.0	1034	3707		2103
MEANED5511	KEZAR FALLS	43 48.5		0	0	0	335.86	1398
2	YORK OSSIPEE RV	70 52.9	OP	150	1827	5977	56.184	1398
	CENTRAL MAINE POWER CO.	420	-812.6	13.0	1827	5977		1398
MEANED5509	LEDGEMERE DAM	43 39.8		0	0	0	141.30	1279
2	YORK LTLEDSPEFL	70 43.3	OP	5965	771	4067	34.737	1279
	CENTRAL MAINE POWER CO.	152	-273.6	34.0	771	4067		1279
MECNED8539	LEIGHS MILL POND	43 13.1	O	28.0	0	0	112.83	1399
2	YORK LEIGHS MILL P	70 49.9	OP	0	413	1995	56.554	1399
	UNKNOWN	86	-148.4	28.0	413	1995		1399
MEANED8517	OSSIPEE DAM TWO	43 47.8	O	7.0	0	0	272.34	1517
2	YORK OSSIPEE RIVER	70 54.0	OP	0	983	3218	84.608	1517
	UNKNOWN	420	-812.6	7.0	983	3218		1517
MEMNED8528	ROUTE 1 DAM	43 22.5	O	18.0	0	0	125.42	1465
2	YORK MOUSAM RIVER	70 32.6	OP	0	361	1808	69.342	1465
	UNKNOWN	125	-215.8	18.0	361	1808		1465

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (Kw) (Kw) (Kw)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MEANED5500	RT FOUR DM	43 13.6	D	0	0	0	176.40	1346
2	YORK SALM FLS R	70 48.7	DP	528	928	4071	43.331	1346
	GREAT WORKHYD. CO.	252	-382.7	24.0	928	4071		1346
MEGNED8066	SACO REALITY CO.	43 30.0	H	35.0	790	3000	45.246	1041
2	YORK SACO RIVER	70 26.9	DP	0	625	9386	4.8205	1041
	SACO REALITY CO.	1700	-3563.9	35.0	1415	12386		1041
MEGNED8025	SKELTON STATION	43 34.1	H	76.0	16800	104000	1237.4	1418
2	YORK SACO RIVER	70 33.5	DP	0	9575	20811	59.459	1418
	CENTRAL MAINE POWER CO.	1640	-3438.1	76.0	26375	124811		1418
MEGNED8027	WEST BUXTON	43 39.6	H	28.0	6625	29808	178.51	1118
2	YORK SACO RIVER	70 35.9	DP	0	2827	14520	12.293	1118
	CENTRAL MAINE POWER CO.	1572	-3295.5	28.0	9452	44328		1118

MASSACHUSETTS

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MAANED8564	COLUMBIA MILL	42 19.0	O	15.0	0	0	149. 3	1427
2	BERKSHIRE HOUSATONICRIV	73 14.5	OP	0	417	2416	61.662	1427
	KIMBERLY CLARK CORP	215	-404.1	15.0	417	2416		1427
MAANED8568	ECLIPSE DAM UPPER	42 42.2	O	32.0	0	0	91.111	1490
2	BERKSHIRE NORTH BRANCH	73 5.8	OP	0	268	1195	76.202	1490
	CITY OF NORTH ADAMS	39	-96.2	32.0	268	1195		1490
MAMNED0786	GLENDALE	42 16.7		0	0	0	171.99	1332
2	BERKSHIRE HOUSATONIC	73 20.6	OP	570	741	4188	41. 60	1332
	HOUSATONICENERGY CO NSERVATI	260	-488.6	21.0	741	4188		1332
MAANED8563	MILL DAM	42 20.4	O	14.0	0	0	147.47	1457
2	BERKSHIRE HOUSATONICRIV	73 14.5	OP	0	375	2186	67.462	1457
	KIMBERLY CLARK CORP	210	-394.7	14.0	375	2186		1457
MAMNED0787	RISINGDALEPD	42 14.5	S	0	0	0	179. 7	1307
2	BERKSHIRE HOUSATONIC	73 21.4	OP	215	836	4725	37.893	1307
	RISING PAPER CO.	280	-526.2	22.0	836	4725		1307
MACNED8510	SOUTH WATUPPA POND	41 40.2	O	47.0	0	0	81. 98	1460
2	BRISTOL QUEQUECHANRIV	71 8.8	OP	0	269	1187	68.296	1460
	CITY OF FALL RIVER	30	-51.0	47.0	269	1187		1460
MAONED0600	BOOK BINDERY POND	42 34.7	O	20.0	0	0	204.22	1308
2	FRANKLIN MILLER RIVER	72 28.8	OP	0	1012	5354	38.140	1308
	DIAMOND NATIONAL CORP.	390	-651.6	20.0	1012	5354		1308
MACNED8560	CONWAY POWERDAM	42 32.4	O	94.0	0	0	99.123	1400
2	FRANKLIN SOUTH RIVER	72 40.0	OP	0	440	1751	56.599	1400
	MASSACHUSETTS DEPARTMENT OF	26	-42.1	94.0	440	1751		1400
MAGNED8017	DEERFIELD THREE	42 35.9	H	39.0	4800	30000	52.448	1076
2	FRANKLIN DEERFIELD RIV	72 44.3	OP	0	1135	-6400	8.1947	1076
	WESTERN MAELECTRIC	445	-1092.0	39.0	5935	23599		1076

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MAGNED8016	GARDINER FALLS	42 35.3	H	22.0	3580	18725	97,640	1177
2	FRANKLIN DEERFIELD RIV	72 43.8	OP	0	1718	-4297	22,722	1177
	NEW ENGLAND POWER CO.	445	-1092.0	22.0	5298	14427		1177
MAMNED0884	MILLER FALONE	42 34.7		2	0	0	[illegible].15	1486
2	FRANKLIN MILLER RIV	72 28.4	OP	0	498	2655	75. 9	1486
	MILLER FALL PAPER	390	-651.6	10.0	498	2655		1486
MAGNED8012	SHERMAN	42 43.8	H	80.0	7200	27000	265.41	2111
2	FRANKLIN DEERFIELD RIV	72 55.7	OP	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	NEW ENGLAND POWER CO.	236	-579.1	80.0	10219	27824		2108
MAGNED8023	TURNER FALLS-CANAL SYSTEM	42 36.5	H	75.0	19085	53600	239.79	1005
2	FRANKLIN CONNECTICUT R	72 33.0	OP	0	4528	137948	1.7382	1005
	3 POWER PLANTS ALONGCANAL	7862	-13862.6	75.0	23613	191548		1005
MAANED0912	CHICOPEE FALLS	42 9.6	R	0	0	0	250.77	1248
2	HAMPDEN CHICOPEE	72 34.9	OP	2400	1355	8084	31. 20	1248
	CITY OF CHICOPEE	714	-1304.6	18.0	1355	8084		1248
MAMNED0906	CRESCENT MILLS	42 13.3	O	0	0	0	196.92	1267
2	HAMPDEN WESTFIELD	72 51.6	OP	6440	1126	5936	33,169	1267
	TEXON	329	-601.1	25.0	1126	5936		1267
MACNED8554	GRANVILLE RESERVOIR	42 5.3	O	100.0	0	0	45,316	1521
2	HAMPDEN MUNN BROOK	72 50.6	OP	0	118	530	85,479	1521
	CITY OF WESTFIELD	6	-11.6	100.0	118	530		1521
MAGNED8025	HOLYOKE DAM-CANAL SYSTEM	42 12.6	H	52.0	1591	10000	58. 55	1033
2	HAMPDEN CONNECTICUT R	72 36.6	OP	0	1122	13615	4.2639	1033
	13 POWER PLANTS ALONG CANAL	8309	-14650.8	52.0	2713	23615		1033
MAGNED8005	INDIAN ORCHARD	42 9.6	H	35.0	3700	14632	29,327	1046
2	HAMPDEN CHICOPEE RIVE	72 30.0	OP	0	783	5352	5.4789	1046
	WESTERN MAELECTRIC	689	-1258.9	35.0	4483	19984		1046

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MAGNED8004	LUDLOW MANUF. ASSOCIATION	42 10.8	H	51.0	3600	16605	44.978	1063
2	HAMPDEN CHICOPEE RIVE	72 24.5	OP	0	1184	6445	6.9782	1063
	WESTERN MAELECTRIC	677	-880.3	51.0	4784	23050		1063
MAGNED8007	STRATMORE PAPER	42 9.6	H	50.0	2690	7859	18. 87	1014
2	HAMPDEN WESTFIELD RIV	72 49.2	OP	0	391	5986	3. 215	1014
	HAMMERHILLPAPER CO.	336	-613.9	50.0	3081	13845		1014
MAANED8559	THE GORGE	42 7.0	O	45.0	0	0	106.88	1397
2	HAMPDEN LITTLE RIVER	72 51.3	OP	0	491	1903	56.153	1397
	SPRINGFIELD WATER WORKS	52	-102.5	45.0	491	1903		1397
MAGNED8006	WEST SPRINGFIELD 3	42 5.9	H	32.0	1400	4800	16.690	1018
2	HAMPDEN WESTFIELD RIV	72 38.3	OP	0	229	5110	3.2658	1018
	HAMMERHILLPAPER CO.	506	-924.5	32.0	1629	9910		1018
MAGNED8003	WESTERN MAELECTRIC	42 9.6	H	44.0	3200	15000	90.483	1092
2	HAMPDEN CHICOPEE RIVE	72 28.8	OP	0	2343	9911	9.1293	1092
	WESTERN MAELECTRIC	687	-1255.2	44.0	5543	24911		1092
MAGNED8027	WESTFIELD RIVER PAPER	42 10.8	H	25.0	700	2800	12.832	1048
2	HAMPDEN WESTFIELD RIV	72 50.9	OP	0	132	2264	5.6661	1048
	WESTFIELD RIVER PAPER CO.	331	-604.7	25.0	832	5064		1048
MACNED0922	KNIGHTVILLE DM	42 17.5	C	0	0	0	165.80	1329
2	HAMPSHIRE WSTFLD R	72 54.4	OP	49000	962	4051	40.928	1329
	DAEN NED	162	-326.7	30.5	962	4051		1329
MAINED8009	QUABBIN RESERVOIR	42 16.7	H	155.0	1200	4800	14.343	1027
2	HAMPSHIRE SWIFT RIVER	72 20.4	OP	0	165	3752	3.8219	1027
	MDC	186	-184.1	155.0	1365	8552		1027
MACNED8553	TIGHE CARMODY RESERVOIR	42 12.7	O	125.0	0	0	62.429	1414
2	HAMPSHIRE MANHAN RIVER	72 46.5	OP	0	228	1074	58.108	1414
	HOLYOKE WATER WORKS	14	-22.6	125.0	228	1074		1414

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MAMNED0946	WARE IND DAM	42 15.7	D	0	0	0	147.94	1387
2	HAMPSHIRE WARE RIVER	72 14.1	OP	58	577	2866	51.615	1387
	WARE INDUSTRIES INC	167	-267.4	23.0	577	2866		1387
MACNED8519	NEWTON UPPER FALLS	42 18.9	D	15.0	0	0	145.18	1481
2	MIDDLESEX CHARLES RIVER	71 13.9	OP	0	395	1957	74.183	1481
	M.D.C.	211	-274.4	15.0	395	1957		1481
MAMNED0603	NORTH CANAL LOCKS - CANAL SY	42 39.6	D	30.0	0	0	2767.1	1195
2	MIDDLESEX MERRIMACK RIV	71 19.2	OP	0	33584	111880	24.732	1195
	A RETIRED POWER PLANT ALONG	4000	-6468.7	30.0	33584	111880		1195
MAMNED0602	OLD GUARD LOCKS - CANAL SYST	42 39.6	D	22.0	0	0	1897.1	1179
2	MIDDLESEX MERRIMACK RIV	71 19.2	OP	0	24628	82045	23.123	1179
	A RETIRED POWER PLANT ALONG	4000	-6468.7	22.0	24628	82045		1179
MAGNED8024	PAWTUCKET-CANAL SYSTEM	42 39.6	H	40.0	8745	28700	30.316	1000
2	MIDDLESEX MERRIMACK RIV	71 19.2	OP	0	906	41952	0.72263	1000
	4 POWER PLANTS ALONGCANAL	4000	-6468.7	40.0	9651	70652		1000
MAINED8020	PEPPEREL PAPER COMPANY	42 39.6	H	28.0	1280	5600	36.770	1145
2	MIDDLESEX NASHUA RIVER	71 34.2	OP	0	468	2062	17.830	1145
	PEPPEREL PAPER COMPANY	433	-556.8	28.0	1748	7662		1145
MACNED8518	RESERVOIR ONE	42 17.4	D	22.0	0	0	94.972	1494
2	MIDDLESEX SUDBURY RIVER	71 26.4	OP	0	219	1224	77.551	1494
	METROPOLITAN DISTRICT COM	76	-132.1	22.0	219	1224		1494
MACNED8516	SAXONVILLEDAM POND	42 19.3	D	25.0	0	0	103.25	1452
2	MIDDLESEX SUDBURY	71 24.0	OP	0	289	1554	66.403	1452
	UNKNOWN	82	-142.5	25.0	289	1554		1452
MAMNED0601	SWAMP LOCKS - CANAL SYSTEM	42 39.6	D	16.0	0	0	1827.3	1244
2	MIDDLESEX MERRIMACK RIV	71 19.2	OP	0	17911	59669	30.624	1244
	A RETIRED POWER PLANT ALONG	4000	-6468.7	16.0	17911	59669		1244

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE OR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MAANED8505	WATERTOWN DAM	42 21.7	O	13.0	0	0	161.74	1493
2	MIDDLESEX CHARLES RIVER	71 11.2	OP	0	415	2094	77.230	1493
	TOWN OF WATERTOWN	266	-346.0	13.0	415	2094		1493
MAMNED8524	BLACKSTONEDAM	42 0.9	O	8.0	0	0	177.59	1501
2	WORCESTER BLACKSTONERIV	71 32.3	OP	0	398	2219	80. 30	1501
	UNKNOWN	359	-647.2	8.0	398	2219		1501
MAGNED8011	COSGROVE \WACHUSETT AQUADUCT	42 24.0	H	98.0	3200	10000	97.412	2102
2	WORCESTER NASHUA RIVER	71 40.7	OP	0	1316	1027	94.778	2099
	MDC	108	-187.7	98.0	4516	11027		2099
MACNE08530	FISHERVILLE POND	42 10.8	O	20.0	0	0	133.38	1435
2	WORCESTER QUINSIGAMONO	71 41.4	OP	0	423	2102	63.440	1435
	OURA LITE COMPANY	133	-226.6	20.0	423	2102		1435
MAMNED1090	FT DEVONS DAM	42 20.9		0	0	0	156.10	1456
2	WORCESTER NASHUA	71 21.7	OP	56	459	2316	67.386	1456
	NINA MORGAN	255	-331.6	15.0	459	2316		1456
MACNED8548	LAKE ROMUNTA	42 34.5	O	72.0	0	0	85.231	1507
2	WORCESTER WILLOW BROOK	72 16.8	OP	0	262	1042	81.744	1507
	RODNEY HUNT POWER CO	20	-33.6	72.0	262	1042		1507
MACNED8521	LANCASTER MILL POND	42 24.6	D	25.0	0	0	113.90	1404
2	WORCESTER NASHUA RIVER	71 40.5	OP	0	357	1995	57. 69	1404
	LANCASTER MILLS	109	-189.4	25.0	357	1995		1404
MAONED8574	MACTAGGARTS POND	42 35.3	O	98.0	0	0	76.606	1476
2	WORCESTER PHILLIPS BROO	71 50.9	OP	0	246	1058	72.342	1476
	CORCKER PAPER	15	-24.3	98.0	246	1058		1476
MACNED8536	QUINEBAUG RIVER POND	42 3.1	O	17.0	0	0	137.45	1473
2	WORCESTER QUINEBAUG RIV	71 58.9	OP	0	388	1928	71.285	1473
	DUDLEY PAPER CO.	152	-243.4	17.0	388	1928		1473

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HO. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
MACNED8523	SUDBURY RESERVOIR	42 18.6	0	112.0	0	0	67.229	1356
2	WORCESTER STONY BROOK	71 29.6	OP	0	263	1470	45.728	1356
	METROPOLITAN DISTRICT C.	23	-32.8	112.0	263	1470		1356
MAANED1093	TUPPER DAM	42 2.8		0	0	0	186.74	1219
2	WORCESTER BLACKSTONE	71 33.1	OP	460	1278	6897	27. 75	1219
	DART INDUSTRIES	261	-470.5	33.0	1278	6897		1219
MAANED1074	WACHUSETT RES	42 24.1		0	0	0	150.88	1180
2	WORCESTER NASHUA RIV	71 41.2	OP	199500	1068	6517	23.150	1180
	MDC	108	-183.6	114.0	1068	6517		1180

NEW HAMPSHIRE

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHMNED5565	AVERY DAM	43 31.6	O	0	0	0	201. 7	1434
2	BELKNAP WINNEPESAK	71 28.0	OP	2600	587	3204	62.754	1434
	N.H. WATEPRESOURCES BOARD	403	-878.8	11.0	587	3204		1434
NHONED8501	LAKEPORT DAM	43 33.4	O	11.0	0	0	302.14	1505
2	BELKNAP WINNEPESAUKEE	71 28.0	OP	0	1321	3711	81.401	1505
	NH WATER RESOURSES BOARD	363	-536.0	11.0	1321	3711		1505
NHMNED5573	LOCHMERE	43 28.3	OR	0	0	0	203.16	1450
2	BELKNAP WINNIPESAU	71 31.9	OP	33280	558	3070	66.164	1450
	N.H. WATERRESOURCES BOARD	430	-938.1	10.0	558	3070		1450
NH6NED7072	TILTON	43 26.7	H	48.0	0	0	1370.6	2051
2	BELKNAP WINNIPESAUKEE	71 38.7	TS	4500	20000	29600	46.304	2049
		482	-1051.1	92.0	20000	29600		2049
NHMNED5568	WINNIPSKE R 2	43 26.5		0	0	0	212.58	1402
2	BELKNAP WINNPSKEE	71 35.6	OP	200	709	3743	56.785	1402
	TOWN OF TILTON	418	-911.5	12.0	709	3743		1402
NHONED5583	BERRY BAY DAM	43 47.5	O	0	0	0	486.32	1468
2	CARROLL OSSIPEE R	71 3.7	OP	47200	3894	6929	70.180	1468
	CENTRAL MAINE POWER CO.	357	-691.1	15.0	3894	6929		1468
NHGNED8020	GOODRICH FALLS	44 7.8	H	68.0	650	2000	44.839	1285
2	CARROLL ELLIS RIVER	71 11.4	OP	0	508	1260	35.566	1285
	GOODRICH FALLS HYDROELEC. CO	53	-96.5	68.0	1158	3260		1285
NHANED5597	PEQUAWKT D	43 58.6	S	0	0	0	188.79	1453
2	CARROLL PEQUAWKT P	71 7.3	OP	1150	484	2836	66.563	1453
	UNKNOWN	378	-913.6	10.0	484	2836		1453
NHMNED8570	WILDCAT BROOK	44 8.4	D	112.0	0	0	145. 6	1428
2	CARROLL WILDCAT BROOK	71 10.7	OP	0	1046	2348	61.775	1428
	UNKNOWN	21	-33.1	112.0	1046	2348		1428

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHMNE00504	ASHUELOT RIVER 1	42 47.5	O	20.0	0	0	203.67	1284
2	CHESHIRE ASHUELOT RIVE	72 28.8	OP	0	1085	5739	35.490	1284
	WHITE WASHBURN CO.	418	-698.4	20.0	1085	5739		1284
NHMNE05656	ASHUELOT R	42 52.1	O	0	0	0	181.13	1412
2	CHESHIRE ASHUELOT R	72 19.6	OP	110	607	3134	57.778	1412
	HOMESTEAD WOOLEN CO.	318	-531.3	14.0	607	3134		1412
NHMNE05661	ASHUELOT RIV	42 47.2	O	0	0	0	205.36	1275
2	CHESHIRE ASHUELOT R	72 27.4	OP	220	1142	5990	34.283	1275
	ASHELUT PAPER CO.	412	-688.4	21.0	1142	5990		1275
NHMNE05662	ASHUELOT RIV 2	42 47.2	O	0	0	0	202.54	1323
2	CHESHIRE ASHUELOT R	72 26.5	OP	200	964	5059	40. 33	1323
	RUSSEL ONEAL PAPER SERVICE M	406	-678.3	18.0	964	5059		1323
NHMNE05663	ASHUELOT RIV	42 47.2	O	0	0	0	200.17	1352
2	CHESHIRE ASHUELOT R	72 26.5	OP	200	857	4427	45.209	1352
	PUBLIC SERVICE CO. OF N.H.	393	-656.6	16.0	857	4427		1352
NHMNE08527	MINNEWAWA BROOK THREE	42 54.8	O	65.0	0	0	91. 59	1503
2	CHESHIRE MINNEWAWA BRO	72 10.6	OP	0	277	1129	80.596	1503
	UNKNOWN	25	-41.6	65.0	277	1129		1503
NHGNE08016	ANDROSCOGNONE	43 36.5	H	41.0	4800	25000	80.657	1036
2	COOS ANDROSCOGNRIV	70 33.0	OP	0	1879	17918	4.5014	1036
	BROWN NH INC.	1384	-2901.4	41.0	6679	42918		1036
NHCNE05716	ERROL DAM	44 47.2	O	0	0	0	945.67	1369
2	COOS ANDROSCOGN	71 7.5	OP	100000	8720	19018	49.724	1369
	UNION WATER POWER CO.	1095	-2002.9	15.0	8720	19018		1369
NHMNE05718	GROVETON PAPER	44 33.4	O	0	0	0	809.94	1401
2	COOS CONN R	71 33.1	OP	1700	6549	14286	56.692	1401
	GROVETON PAPERS CO.	1026	-1880.4	12.0	6549	14286		1401

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHGNED8006	J. BRODIE SMITH	44 24.0	H	87.0	15000	97608	124.31	1050
2	COOS ANDROSCOGGIN	71 7.1	OP	0	2490	20935	5.9377	1050
	PUBLIC SERVICE CO.	1372	-2578.8	87.0	17490	118543		1050
NHCNED5724	LAKE FRANCIS	45 2.7	O	0	0	0	246.67	1162
2	COOS CONN R	71 22.9	OP	96000	2235	11999	20.556	1162
	N.H. WATERRESOURCES BOARD	165	-395.6	100.0	2235	11999		1162
NHMNED8528	NEW ENGLAND ELECTRICSYSTEM	45 4.9	O	27.0	0	0	147.35	1393
2	COOS CONNECTICUT R	71 17.4	OP	0	706	2733	53.902	1393
	NEW ENGLAND POWER CO.	82	-197.5	27.0	706	2733		1393
NHCNED5715	PONTOOK DAM	44 37.1	R	0	0	0	1012.9	1373
2	COOS ANDROSCOGN	71 15.0	OP	0	9254	20182	50.192	1373
	DIRECTOR,DIVISION OFPARK + R	1245	-2277.3	14.0	9254	20182		1373
NHGNED8002	RIVERSIDE	44 28.2	H	66.0	7600	63000	6.1203	1004
2	COOS ANDROSCOGGIN	71 10.2	OP	0	123	3994	1.5323	1004
	BROWN,NH INC.	1371	-2576.9	66.0	7723	66994		1004
NHMNED0500	SAWMILL DAM	44 28.2	O	17.0	0	0	1278.0	1357
2	COOS ANDROSCOGNRIV	71 10.7	OP	0	13253	27753	46. 51	1357
	BROWN NH INC.	1370	-2575.1	17.0	13253	27753		1357
NHMNED0503	UPPER AMMONOOSUC RIVER	44 35.3	O	11.0	0	0	149.74	1496
2	COOS UPPER AMMONOO	71 32.3	OP	0	329	1912	78.278	1496
	GROVETON PAPER CO	263	-542.7	11.0	329	1912		1496
NHMNED8530	UPPER AMMONOOSUC RIVER TWO	44 21.7	O	13.0	0	0	141.47	1469
2	COOS UPPER AMMONOO	71 36.4	OP	0	342	2011	70.337	1469
	GROVETON PAPER CO.	263	-442.8	13.0	342	2011		1469
NHMNED5818	AMMONOOSC RV 1	44 12.8	O	0	0	0	153.91	1351
2	GRAFTON AMMONOOSUC	71 51.7	OP	425	607	3482	44.201	1351
	PUBLIC SERVICE CO. OF N.H.	288	-484.9	20.0	607	3482		1351

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE OR AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHMNED5827	AMMONOOSUCONE	44 10.0	O	0	0	0	158.57	1382
2	GRAFTON AMMONOOSUC	71 57.7	OP	0	532	3105	51. 59	1382
	DIAMOND WOODWORKING CO.	327	-550.6	16.0	532	3105		1382
NHGNED8013	AYERS ISLAND	43 35.9	H	80.0	8400	37969	314.23	1161
2	GRAFTON PEMIGEWASSET	71 43.1	OP	0	3957	15727	19.979	1161
	PUBLIC SERVICE CO.	746	-1626.8	80.0	12357	53696		1161
NHGNED8010	COMERFORD	44 19.7	H	179.0	140400	307000	2050.2	1321
2	GRAFTON CONNECTICUT R	72 0.0	OP	0	107028	51527	39.788	1321
	NEW ENGLAND POWER CO	1635	-3170.6	179.0	247428	358527		1321
NHGNED8009	FIFTEEN MILE FALLS	44 20.3	H	159.0	140400	251000	1530.3	1202
2	GRAFTON CONNECTICUT R	71 52.8	OP	0	74677	60651	25.231	1202
	NEW ENGLAND POWER CO.	1600	-3102.7	159.0	215077	311651		1202
NHMNED5820	LITTLETON 1	44 17.9	O	0	0	0	150.34	1474
2	GRAFTON AMMONOOSUC	71 44.8	OP	0	457	2099	71.611	1474
	LITTLETON WATER AND LIGHT DE	230	-399.7	15.0	457	2099		1474
NHANED8556	MAD RIVER ONE	43 52.3	O	36.0	0	0	96.233	1467
2	GRAFTON MAD RIVER	71 38.2	OP	0	342	1376	69.901	1467
	USDA FOREST SERVICE	57	-96.1	36.0	342	1376		1467
NHMNED8513	MASCOMA RIVER THREE	43 39.2	OS	16.0	0	0	163.69	1527
2	GRAFTON MASCOMA RIVER	72 13.4	OP	0	567	1825	89.685	1527
	TOWN OF LEBANON	150	-212.9	16.0	567	1825		1527
NHMNED8514	MASCOMA RIVER TEN	43 38.6	O	15.0	0	0	184.22	1513
2	GRAFTON MASCOMA RIVER	72 17.3	OP	0	687	2213	63.240	1513
	TOWN OF LEBANON	194	-275.4	15.0	667	2213		1513
NHMNED8517	MASCOMA RIVER SEVEN	43 39.1	O	19.0	0	0	184.30	1458
2	GRAFTON MASCOMA RIVER	72 15.0	OP	0	844	2716	67.844	1458
	SM DEVELOPMENT CORP.	188	-266.9	19.0	844	2716		1458

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DP.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHMNED8521	MASCOMA RIVER EIGHT	43 39.1	O	15.0	0	0	178. 4	1524
2	GRAFTON MASCOMA RIVER	72 15.0	OP	0	641	2064	86.227	1524
	DANIELS TRANSPORTATION CO.	181	-256.9	15.0	641	2064		1524
NHGNED8017	N E POWER 2	44 15.5	H	30.0	10560	44000	64.486	1035
2	GRAFTON CONN. RIVER	72 3.5	OP	0	1261	14463	4.4584	1035
	N E POWER CO.	2200	-4266.2	30.0	11821	58463		1035
NHMNED8558	NEWFOUND RIVER ELEVEN	43 36.1	O	30.0	0	0	116.22	1426
2	GRAFTON PEMIGEWASSET	71 44.2	OP	0	475	1888	61.538	1426
	HENRY HARRIS	94	-156.8	30.0	475	1888		1426
NHMNED5887	CONTOOCOOKR 2	43 7.1	O	0	0	0	197.65	1311
2	HILLSBORO CONTOOCOOK	71 54.1	OP	0	1055	5140	38.448	1311
	HILLSBOROUGH WOOLEN MILL CO.	358	-618.6	21.0	1055	5140		1311
NHMNED8546	CONTOOCOOKRIVER TWO	42 51.1	O	21.0	0	0	92.581	1526
2	HILLSBORO CONTOOCOOKRIV	71 57.6	OP	0	214	1058	87.500	1526
	NOONE MILLS INC	68	-118.3	21.0	214	1058		1526
NHMNED5881	GREGGS FALLS	43 1.0	O	0	0	0	162.73	1171
2	HILLSBORO PISCATAQUG	71 34.0	OP	4000	1668	7525	21.625	1171
	N.H. WATERRESOURCES BOARD	190	-316.8	59.0	1668	7525		1171
NHMNED5896	JACKSON ML	42 45.7	O	0	0	0	194. 7	1341
2	HILLSBORO NASHUA R	71 28.5	OP	600	933	4536	42.781	1341
	SANDERS ASSOC.INC.	412	-529.8	19.0	933	4536		1341
NHMNED5895	MINES FALLS	42 44.8	O	0	0	0	198.17	1194
2	HILLSBORO NASHUA R	71 30.4	OP	650	1585	8014	24.726	1194
	NASHUA PARK AND RECREATION D	412	-529.8	35.0	1585	8014		1194
NHANED8553	SOUHEGAN RIVER ONE	42 50.3	O	20.0	0	0	113.18	1488
2	HILLSBORO SOUHEGAN RIVE	71 44.2	OP	0	320	1494	75.733	1488
	HILLSBORO MILLS	97	-166.9	20.0	320	1494		1488

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC	ERC NONECONOMIC	ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHMNED8540	SOUHEGAN RIVER	42 49.9	O	20.0	0	0	136.79	1463		
2	HILLSBORO SOUHEGAN RIVE	71 38.8	OP	0	478	1985	68.903		1463	
	TOWN OF MILFORD	138	-230.1	20.0	478	1985				1463
NHGNED8011	AMOSKEAG	43 0.0	H	46.0	16000	82700	310.21	1117		
2	HILLSBOROUGH MERRIMACK RIV	71 26.4	OP	0	7762	25486	12.171		1117	
	PUBLIC SERVICE CO.	2840	-4851.1	46.0	23762	108186				1117
NHGNED8022	CONTOOCOOK3	43 0.0	H	25.0	720	1200	10.353	1038		
2	HILLSBOROUGH CONTOOCOOKRIV	71 55.7	OP	0	111	2252	4.5960		1038	
	MONADNOCK MILLS	192	-320.1	25.0	831	3452				1038
NHMNED8574	CONTOOCOOKFOUR	43 0.0	O	15.0	0	0	149.43	1487		
2	HILLSBOROUGH CONTOOCOOKRIV	71 55.7	OP	0	451	1980	75.457		1487	
	MONADANOCKMILLS	192	-320.1	15.0	451	1980				1487
NHINED8015	JACKMAN RESERVOIR	43 6.5	H	176.0	3200	6000	37.319	1135		
2	HILLSBOROUGH JACKMAN RESER	71 56.9	OP	0	524	2427	15.371		1135	
	PUBLIC SERVICE CO.	66	-117.5	176.0	3724	10427				1135
NHCNED8572	MONADNOCK MILL	43 0.0	O	13.0	0	0	148.74	1528		
2	HILLSBOROUGH CONTOOCOOKRIV	71 55.7	OP	0	378	1687	88.123		1528	
	MONADNOCK MILLS	192	-320.1	13.0	378	1687				1528
NHMNED0507	PISCATAQUOG 1	42 59.4	O	22.0	0	0	167. 2	1374		
2	HILLSBOROUGH PISCATAQUOG R	71 30.0	OP	0	776	3315	50.376		1374	
	NH WATER RES. BOARD	214	-356.8	22.0	776	3315				1374
NHONED0523	STEELE POND	43 4.7	O	84.0	0	0	139.99	1310		
2	HILLSBOROUGH NORTH BRANCH	71 58.1	OP	0	939	3646	38.391		1310	
	NH WATER RES. BOARD	60	-106.1	84.0	939	3646				1310
NHCNED8573	WALERLOOM POND	42 44.4	O	68.0	0	0	84.349	1489		
2	HILLSBOROUGH SOUHEGAN RIVE	71 50.4	OP	0	251	1109	76. 19		1489	
	GREENVILLEMILLS	23	-37.5	68.0	251	1109				1489

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC (SEQUENCE RANK)	ERC NONECONOMIC (SEQUENCE RANK)	ERC COMPOSITE (SEQUENCE RANK)
NHCNED5982	BLACKWATERDAM	43 18.4	C	0	0	0	121.87	1480		
2	MERRIMACK BLACKWATER	71 43.9	OP	46000	357	1661	73.336		1480	
	DAEN NED	128	-211.9	19.0	357	1661				1480
NHMNED8534	BLACKWATERRIVER ONE	43 24.2	O	20.0	0	0	110.58	1519		
2	MERRIMACK BLACKWATERRIV	71 47.3	OP	0	305	1300	85. 17		1519	
	DAVE CHAMBERLAIN	102	-171.0	20.0	305	1300				1519
NHMNED5987	CONTOCOK VALY	43 8.5	R	0	0	0	192.67	1420		
2	MERRIMACK CONTOCOK R	71 52.0	OP	0	631	3195	60.294		1420	
	CONTOOCOOKVALLY PAP ER CO.	374	-646.3	13.0	631	3195				1420
NHMNE00518	CONTOOCOOKRIVER	43 16.1	O	8.0	0	0	231.52	1425		
2	MERRIMACK CONTOOCOOKRIV	71 36.6	OP	0	720	3767	61.451		1425	
	NH WATER RES. BOARD	765	-1259.2	8.0	720	3767				1425
NHMNED0519	CONTOOCOOKRIVER	43 16.1	O	7.0	0	0	212.88	1447		
2	MERRIMACK CONTOOCOOKRIV	71 35.4	OP	0	610	3250	65.486		1447	
	NH WATER RES. BOARD	769	-1265.8	7.0	610	3250				1447
NHMNED0520	CONTOOCOOKRIVER	43 16.1	O	17.0	0	0	240. 0	1266		
2	MERRIMACK CONTOOCOOKRIV	71 35.9	OP	0	1277	7256	33. 73		1266	
	UNKNOWN	765	-1259.2	17.0	1277	7256				1266
NHMNED0521	CONTOOCOOKRIVER	43 9.0	O	12.0	0	0	194.28	1445		
2	MERRIMACK CONTOOCOOKRIV	71 49.2	OP	0	592	2997	64.824		1445	
	UNKNOWN	380	-656.6	12.0	592	2997				1445
NHMNED0522	CONTOOCOOKRIVER 2	43 13.2	O	10.0	0	0	183.12	1492		
2	MERRIMACK CONTOOCOOKRIV	71 43.1	OP	0	456	2388	76.666		1492	
	UNKNOWN	388	-638.6	10.0	456	2388				1492
NHGNED8014	EASTMAN FALLS	43 29.4	H	27.0	3000	17247	74.864	1103		
2	MERRIMACK PEMIGEWASSET	71 39.0	OP	0	1892	7147	10.474		1103	
	PUBLIC SERVICE CO.	1013	-1876.6	27.0	4892	24394				1103

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC	ERC NONECONOMIC	ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHONED0506	GILES POND	43 27.0	O	92.0	0	0	100.20	1394		
2	MERRIMACK SALMON BROOK	71 39.5	OP	0	462	1811	55.308		1394	
	MARTIN A. CRAWLEY	25	-45.3	92.0	462	1811				1394
NHGNED8012	HOOKSETT	43 5.9	H	15.0	1600	10800	97.721	1114		
2	MERRIMACK MERRIMACK RIV	71 26.9	OP	0	939	8126	12. 25		1114	
	PUBLIC SERVICE CO.	2807	-4794.8	15.0	2539	18926				1114
NHCNED5980	HOPKINTON LK	43 11.5	CR	0	0	0	203.50	1331		
2	MERRIMACK CONTOOCOOK	71 44.8	OP	71500	973	4956	41. 59		1331	
	DAEN NED	426	-701.2	18.0	973	4956				1331
NHMNED5998	SEWALLS FALLS	43 15.4	O	0	0	0	1561.0	1365		
2	MERRIMACK MERRIMACK	71 33.1	OP	38	13732	32003	48.776		1365	
	N.H. WATERRESOURCES BOARD	2233	-4136.6	12.0	13732	32003				1365
NHANED5991	SUNCOOK RIV 6	43 9.0	O	0	0	0	163.78	1439		
2	MERRIMACK SUNCOOK R	71 24.4	OP	1000	567	2567	63.787		1439	
	N.H. WATERRESOURCES BOARD	238	-397.7	16.0	567	2567				1439
NHMNED0508	SUNCOOK RIVER 1	43 8.4	O	18.0	0	0	173. 0	1396		
2	MERRIMACK SUNCOOK RIVER	71 27.6	OP	0	699	3093	55.929		1396	
	DOLE-SUNCOOK INC.	252	-420.2	18.0	699	3093				1396
NHMNED0509	SUNCOOK RIVER	43 7.1	O	33.0	0	0	176.40	1253		
2	MERRIMACK SUNCOOK RIVER	71 26.9	OP	0	1215	5527	31.914		1253	
	TEXTRON INC	252	-420.2	33.0	1215	5527				1253
NHMNED0510	SUNCOOK RIVER 3	43 7.1	O	37.0	0	0	176.97	1229		
2	MERRIMACK SUNCOOK RIVER	71 26.4	OP	0	1338	6141	28.814		1229	
	DOLE-SUNCOOK INC.	252	-420.2	37.0	1338	6141				1229
NHMNED8536	SUNCOOK RIVER ONE	43 19.0	O	17.0	0	0	118.16	1531		
2	MERRIMACK SUNCOOK RIVER	71 19.3	OP	0	304	1336	88.415		1531	
	CATHOLIC SISTERS	131	-196.7	17.0	304	1336				1531

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC (SEQUENCE RANK)	ERC NONECONOMIC (SEQUENCE RANK)	ERC COMPOSITE (SEQUENCE RANK)
NHMNED8547	SUNCOOK RIVER THREE	43 18.7	0	21.0	0	0	120.79	1491		
2	MERRIMACK SUNCOOK RIVER	71 20.2	OP	0	379	1579	76.466		1491	
	NH WATER RESOURCES BOARD	120	-180.1	21.0	379	1579				1491
NHMNED8548	SUNCOOK RIVER TWO	43 18.7	0	21.0	0	0	126.84	1479		
2	MERRIMACK SUNCOOK RIVER	71 19.9	OP	0	420	1736	73. 60		1479	
	NH WATER RESOURCES BOARD	131	-196.7	21.0	420	1736				1479
NHMNED0511	WINNIPESAUKE 1	43 27.0	0	17.0	0	0	228.61	1302		
2	MERRIMACK WINNIPESAUKE	71 38.3	OP	0	1166	6093	37.518		1302	
	UNKNOWN	475	-1035.8	17.0	1166	6093				1302
NHMNED0512	WINNIPESAUKE 2	43 27.0	0	17.0	0	0	228.61	1303		
2	MERRIMACK WINNIPESAUKE	71 38.3	OP	0	1166	6093	37.518		1303	
	UNKNOWN	475	-1035.8	17.0	1166	6093				1303
NHMNED0513	WINNIPESAUKE 3	43 27.0	0	25.0	0	0	203.90	1215		
2	MERRIMACK WINNIPESAUKE	71 38.3	OP	0	1295	7714	26.429		1215	
	UNKNOWN	475	-1035.8	25.0	1295	7714				1215
NHMNED0514	WINNIPESAUKE 4	43 27.0	0	16.0	0	0	229.74	1319		
2	MERRIMACK WINNIPESAUKE	71 38.3	OP	0	1121	5799	39.616		1319	
	UNKNOWN	475	-1035.8	16.0	1121	5799				1319
NHMNED0515	WINNIPESAUKE 5	43 27.0	0	17.0	0	0	228.61	1304		
2	MERRIMACK WINNIPESAUKE	71 38.3	OP	0	1166	6093	37.518		1304	
	UNKNOWN	475	-1035.8	17.0	1166	6093				1304
NHMNED0516	WINNIPESAUKE 6	43 27.0	0	17.0	0	0	230.12	1299		
2	MERRIMACK WINNIPESAUKE	71 38.3	OP	0	1180	6170	37.293		1299	
	PUBLIC SERVICE CO.	481	-1048.9	17.0	1180	6170				1299
NHMNED0517	WINNIPESAUKE 8	43 27.0	0	18.0	0	0	222.57	1281		
2	MERRIMACK WINNIPESAUKE	71 38.3	OP	0	1164	6341	35.100		1281	
	UNKNOWN	487	-1063.9	18.0	1164	6341				1281

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHMNED6028	LAMPREY RIVER	43 4.9	0	0	0	0	173.80	1268
2	ROCKINGHAM LAMPREY R	70 56.0	OP	185	1253	5236	33.191	1268
	ESSEX INTERNATIONAL INC.	208	-315.9	36.0	1253	5236		1268
NHMNED8542	MERRIMACK	42 51.4	0	18.0	0	0	147. 5	1459
2	ROCKINGHAM SOUHEGAN RIVE	71 29.8	OP	0	502	2164	67.936	1459
	PENNICHUCKWATER WOR KS	172	-286.8	18.0	502	2164		1459
NHANED8550	SPICKET RIVER WHEELERS	42 48.9	0	80.0	0	0	81. 59	1509
2	ROCKINGHAM SPICKETT RIVE	71 12.1	OP	0	257	981	82.548	1509
	SPICKET RIVER CORP.	23	-26.1	80.0	257	981		1509
NHMNED8510	COCHECO RIVER ONE	43 16.7	0	25.0	0	0	97.114	1511
2	STRAFFORD COCHECO RIVER	70 58.8	OP	0	269	1175	82.639	1511
	RINDGE INDUSTRIES	77	-116.6	25.0	269	1175		1511
NHMNED6059	COCHECO RVFOU	43 12.0	0	0	0	0	163. 2	1301
2	STRAFFORD COCHECO RV	70 52.5	OP	0	1041	4351	37.468	1301
	CITY OF DOVER	183	-277.9	34.0	1041	4351		1301
NHMNED8509	ISINGLASS RIVER THREE	43 14.5	0	30.0	0	0	94.899	1483
2	STRAFFORD ISINGLASS RIV	70 58.9	OP	0	303	1275	74.387	1483
	TOWN OF BARRINGTON	68	-102.5	30.0	303	1275		1483
NHMNED6080	SALMNFALLSRIV2	43 14.2	0	0	0	0	171.21	1205
2	STRAFFORD SALMONFLLR	70 44.1	OP	800	1469	6710	25.514	1205
	TOWN OF ROLLINSFORD	230	-349.3	45.0	1469	6710		1205
NHANED6081	SALMON FALLS R	43 15.3	0	0	0	0	178.17	1269
2	STRAFFORD SALMNFALLR	70 50.6	OP	600	1283	5360	33.239	1269
	CITY OF SOMERSWORTH	219	-332.6	35.0	1283	5360		1269
NHANED6082	SALMON FALLS	43 15.9	0	0	0	0	156.83	1441
2	STRAFFORD SALMNFALLR	70 51.7	OP	550	545	2451	63.981	1441
	PUBLIC SERVICE CO. OF N.H.	219	-332.6	17.0	545	2451		1441

SITE ID NUMBER / ACTV. INV.	PROJECT NAME / PRIMARY CO. -NAME OF STREAM / OWNER	LATITUDE / LONGITUDE / DR.AREA (O M.M) (D M.M) (SQ.MI)	PROJ.PURP. / STATUS / AVE. Q (CFS)	DAM HT / MX.STOR. / PWR. HD. (FT) / (AC FT) (FT)	EXIST.CAP. / INC. CAP. / TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG / INC.ENERGY / TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST / ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC / ERC NONECONOMIC / ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHMNED0525	SALMON FALLS RIVER	43 13.8	0	20.0	0	0	167. 7	1390
2	STRAFFORD SALMON FALLS	70 50.4	OP	0	723	3150	53. 35	1390
	SO. BERWICK MANU. CO.	232	-352.8	20.0	723	3150		1390
NHMNED8505	SALMON FALLS ELEVEN	43 24.7	0	20.0	0	0	113.37	1506
2	STRAFFORD SALMON FALLS	70 59.5	OP	0	322	1390	81.535	1506
	NH WATER RESOURCES BOARD	114	-171.1	20.0	322	1390		1506
NHMNED8506	SALMON FALLS RIVER	43 20.8	0	17.0	0	0	123.87	1520
2	STRAFFORD SALMON FALLS	70 56.4	OP	0	336	1451	85.346	1520
	BOSTON FELT CO.	140	-210.2	17.0	336	1451		1520
NHMNED8512	SALMON FALLS FOUR	43 24.4	0	28.0	0	0	122.13	1422
2	STRAFFORD SALMON FALLS	70 58.9	OP	0	491	2010	60.757	1422
	MILTON LAND CORP.	113	-169.6	28.0	491	2010		1422
NHMNED8567	SALMON FALLS 1	43 24.0	0	26.0	0	0	123.94	1443
2	STRAFFORD SALMON FALLS	70 59.3	OP	0	472	1932	64.129	1443
	S. BERWICKMANU.	117	-175.6	26.0	472	1932		1443
NHONED0524	SALMON FALLS 2	43 24.0	0	99.0	0	0	136.26	1204
2	STRAFFORD SALMON FALLS	70 59.3	OP	0	973	5345	25.489	1204
	UNKNOWN	116	-174.1	99.0	973	5345		1204
NHANED8515	SUGAR RIVER EIGHT	43 22.9	0	12.0	0	0	143.63	1530
2	SULLIVAN SUGAR RIVER	72 20.6	OP	0	326	1625	88.366	1530
	DARTMOUTH WOOLEN MILLS	251	-375.4	12.0	326	1625		1530
NHGNED8018	SUGAR RIVER THREE	43 22.8	H	26.0	800	2000	15.133	1065
2	SULLIVAN SUGAR RIVER	72 20.9	OP	0	160	2055	7.3644	1065
	CLAREMONT PAPER MILL	250	-373.9	26.0	960	4055		1065
NHGNED8019	SUGAR RIVER TEN	43 23.4	H	33.0	500	1000	11.637	1032
2	SULLIVAN SUGAR RIVER	72 22.8	OP	0	111	2770	4.2000	1032
	CAY PAPER CO.	270	-403.8	33.0	611	3770		1032

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NHMNED0501	SUGAR RIVER 1	43 23.4	O	30.0	0	0	93,235	1497
2	SULLIVAN SUGAR RIVER	72 5.9	OP	0	292	1186	78,594	1497
	UNKNOWN	60	-100.1	30.0	292	1186		1497
NHMNED8519	SUGAR RIVER THREE	43 23.8	O	74.0	0	0	119.24	1383
2	SULLIVAN SUGAR RIVER	72 5.4	OP	0	603	2329	51,187	1383
	PUBLIC SERVICE CO	46	-76.7	74.0	603	2329		1383
NHMNED611A	SUGAR RV ONE	43 13.2	O	0	0	0	164.37	1318
2	SULLIVAN SUGAR RV	72 12.9	OP	52	928	4163	39,478	1318
	N.H. PUBLIC WORKS AND HIGHWA	250	-373.9	28.0	928	4163		1318
NH6NED7018	THATCHER	43 19.1	H	55.0	0	0	80,289	2087
2	SULLIVAN SOUTH BRANCH	72 10.4	IS	11990	277	1135	70,718	2084
		34	-56.5	47.0	277	1135		2084

NUMBER OF SITES SATISFYING CONSTRAINTS = 308

COMMAND AND CONSTRAINTS END

RHODE ISLAND

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE OR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
RIMNE08512	ARKWRIGHT MILL	41 43.8	0	20.0	0	0	124. 1	1471
2	KENT NORTH BRANCH	71 32.8	OP	0	364	1746	70.992	1471
	INTERLAKENMILLS	100	-189.0	20.0	364	1746		1471
RIMNE08519	ARTIC	41 42.4	0	24.0	0	0	113.11	1436
2	KENT SOUTH BRANCH	71 31.3	OP	0	340	1781	63.475	1436
	NATCO	72	-146.0	24.0	340	1781		1436
RIONE08510	CENTERVILLE POND	41 41.8	0	20.0	0	0	111.18	1484
2	KENT SOUTH BRANCH	71 31.3	OP	0	289	1493	74.435	1484
	NATCO	72	-145.2	20.0	289	1493		1484
RIMNED8511	HARRIS MILL	41 43.4	0	25.0	0	0	129. 3	1415
2	KENT NORTH BRANCH	71 32.3	OP	0	465	2219	58.131	1415
	VICTOR ELECTRIC	101	-190.9	25.0	465	2219		1415
RICNED1702	NATICK POND	41 43.0	0	0	0	0	146.46	1276
2	KENT PAWTUXET R	71 29.5	OP	600	736	4254	34.424	1276
	ROLANO BUGGIERI	179	-307.5	30.0	736	4254		1276
RIANED8507	QUIONICK UPPER	41 41.6	0	22.0	0	0	109.95	1470
2	KENT SOUTH BRANCH	71 32.5	OP	0	300	1550	70.939	1470
	ESMOND ENTERPRISES	68	-136.9	22.0	300	1550		1470
RIMNED8515	RIVER POINT UPPER	41 42.7	0	30.0	0	0	114.56	1380
2	KENT SOUTH BRANCH	71 31.0	OP	0	432	2250	50.913	1380
	SAYBROOKE MFG.	73	-146.6	30.0	432	2250		1380
RIANED1769	ALBION	41 57.1	D	0	0	0	225. 6	1381
2	PROVIDENCE BLACKSTONE	71 27.1	OP	347	801	4414	50.983	1381
	PSP REALTYCO.	433	-780.6	13.0	801	4414		1381
RIANED1770	ASHTON DAM	41 57.7	0	0	0	0	221.98	1419
2	PROVIDENCE BLCKSTNE	71 23.2	OP	202	660	3704	59.931	1419
	RONCI MFG.CO.	439	-791.4	11.0	660	3704		1419

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE OR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)	
RIANED1773	CENT FALLSDAM	41 53.2	Q	0	0	0	233. 5	1409	
2	PROVIDENCE BLACKSTONE	71 22.8	OP	160	727	4054	57.484	1409	
	BASSET REALTY CO.	477	-859.9	11.0	727	4054			1409
RIANED8506	EAST PROVIDENCE WATER WORKS	41 49.9	Q	25.0	0	0	92.547	1527	
2	PROVIDENCE SEEKONK RIVER	71 20.5	OP	0	228	1054	87.783	1527	
	EAST PROVIDENT WATERWORKS	52	-88.9	25.0	228	1054			1527
RICNED8504	HARRIS POND	42 1.0	Q	34.0	0	0	78.970	1522	
2	PROVIDENCE MILL RIVER	71 30.4	OP	0	198	922	85.611	1522	
	CITY OF WOONSOCKET	33	-57.5	34.0	198	922			1522
RIANED9059	MANVILLE	41 58.3	Q	0	0	0	221.68	1282	
2	PROVIDENCE BLACKSTONE	71 28.1	OP	0	1132	6312	35.117	1282	
	MARGEL COURNOYER	430	-775.2	19.0	1132	6312			1282
RIANED9060	PAWTKET LOWER	41 52.5	Q	0	0	0	231.55	1297	
2	PROVIDENCE BLACKSTONE	71 22.6	OP	0	1110	6232	37.151	1297	
	BLACKSTONEVALLEY EL ECT.	478	-861.7	17.0	1110	6232			1297
RIMNED8505	PAWTUCKET UPPER	41 52.6	Q	7.0	0	0	193.28	1482	
2	PROVIDENCE BLACKSTONERIV	71 22.9	OP	0	470	2604	74.210	1482	
	PAWTUCKET	478	-861.7	7.0	470	2604			1482
RIANED1771	PRATT	41 54.7	Q	15.0	0	0	210.64	1355	
2	PROVIDENCE BLACKSTONE	72 24.4	OP	393	840	4614	45.644	1355	
	J. M. MILLS	444	-811.2	15.0	840	4614			1355
RIMNED1772	VALLY FALLS PD	41 53.7	Q	0	0	0	225.68	1359	
2	PROVIDENCE BLACKSTONE	71 23.3	OP	826	877	4860	46.434	1359	
	BLACKSTONEFALLS ASS OC.	446	-804.0	14.0	877	4860			1359
RIANED1767	WOONSOCK FALLS	42 0.0	Q	0	0	0	213. 0	1206	
2	PROVIDENCE BLACKSTONE	71 31.1	OP	0	1503	8329	25.572	1206	
	CITY WOONSOCKET	369	-665.2	29.0	1503	8329			1206

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
RIMNFD8500	POTTER HILL	41 24.7	0	8.0	0	0	156.90	1533
2	WASHINGTON PAWCATUCK RIV	71 47.8	OP	0	312	1767	88.748	1533
	HELEN COTTRELL	240	-460.0	8.0	312	1767		1533

VERMONT

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VTGNED8014	BELDENS	44 2.9	H	41.0	1600	9600	60.714	1218
2	ADDISON OTTER CREEK	73 10.7	OP	0	1044	2245	27. 38	1218
	VT. MARBLECO.	365	-575.0	41.0	2644	11845		1218
VT6NED7021	HANCOCK	43 56.5	H	50.0	0	0	63.900	2099
2	ADDISON WHITE RIVER	72 50.4	IS	8250	150	744	85.782	2096
		30	-45.0	43.0	150	744		2096
VTGNED8015	HUNTINGTONFALLS	44 4.1	H	175.0	1400	10000	82.613	1067
2	ADDISON OTTER CREEK	73 11.9	OP	0	1022	11201	7.3752	1067
	VT. MARBLECO.	753	-1186.3	175.0	2422	21201		1067
VT6NED7019	HUNTINGTONFALLS	44 3.9	H	25.0	0	0	462.93	2022
2	ADDISON OTTER CREEK	73 14.2	IS	5125	4706	14774	31.333	2022
		749	-1180.0	21.0	4706	14774		2022
VTGNED8018	MIDDLEBURYLOWER	44 1.7	H	28.0	2250	7400	54.331	1083
2	ADDISON OTTER CREEK	73 10.7	OP	0	762	6372	8.5264	1083
	CENTRAL VTPUBLIC SE RVICE CO	630	-992.6	28.0	3012	13772		1083
VTMNED6142	MIDDLEBURYUPP	44 1.1	O	0	0	0	224.93	1316
2	ADDISON OTTER CRK	73 10.0	OP	0	952	5730	39.254	1316
	CENTRAL VT. PUBLIC SERVICE C	630	-992.6	15.0	952	5730		1316
VT6NED7018	NEW HAVEN MILLS	44 5.5	H	67.0	0	0	126.48	2029
2	ADDISON NEW HAVEN RIV	73 6.4	IS	30490	886	3718	34. 11	2029
		85	-156.3	57.0	886	3718		2029
VTINED8020	SILVER LAKE	43 54.0	H	9.0	2200	6400	101.91	2112
2	ADDISON EAST CREEK	73 3.0	OP	0	908	-313	325.43	2109
	CENTRAL VTPUBLIC SE RVICE CO	676	-1065.0	9.0	3108	6086		2109
VTGNED8016	VERGENNES NINE	44 10.2	H	35.0	2400	10000	18.350	1012
2	ADDISON OTTER CREEK	73 15.6	OP	0	299	7270	2.5210	1012
	GREEN MOUNTAIN POWERCO.	873	-1375.4	35.0	2699	17270		1012

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VTGNED8017	WEYBRIDGE	44 4.1	H	31.0	3000	12900	47,576	1081
2	ADDISON OTTER CREEK	73 13.1	OP	0	1135	5626	8.4564	1081
	CENTRAL VTPUBLIC SE RVICE CO	755	-1189.5	31.0	4135	18526		1081
VTMNED8529	MANCHESTERCENTER	43 10.8	O	19.0	0	0	174.87	1360
2	BENNINGTON METTAWEE RIVE	73 3.5	OP	0	700	3748	46.650	1360
	W. KIMBLE	18	-529.0	19.0	700	3748		1360
VTGNED8035	SEARSBURG	42 54.0	H	232.0	4000	24000	33.191	1130
2	BENNINGTON DEERFIELD RIV	72 56.9	OP	0	461	-2389	13.892	1130
	NEW ENGLAND POWER CO.	98	-194.9	232.0	4461	21610		1130
VTMNED6156	TANNING COMP D	42 47.5		0	0	0	191.66	1258
2	BENNINGTON HODSIC RIV	73 15.3	OP	0	1023	5904	32.462	1258
	POWNAL TANN CO.	220	-539.8	24.0	1023	5904		1258
VTANED8510	VERMONT TISSUE	42 54.2	O	16.0	0	0	101.78	1515
2	BENNINGTON WALLOOMSACRIV	73 13.5	OP	0	198	1205	84.403	1515
	VERMONT TISSUE CO	95	-188.9	16.0	198	1205		1515
VT6NED7011	E. ST. JOHNSBURY	44 26.3	H	90.0	0	0	142.28	2019
2	CALEDONIA MOOSE RIVER	71 56.7	IS	61200	863	4720	30.138	2019
		117	-203.3	77.0	863	4720		2019
VT6NED7012	FISH HATCHERY	44 25.5	H	130.0	0	0	82.522	2047
2	CALEDONIA SLEEPERS RIVE	72 2.0	IS	20800	387	1864	44.259	2045
		41	-57.2	111.0	387	1864		2045
VTGNED8029	GREAT FALLS	44 30.0	H	61.0	1200	7700	93.595	2104
2	CALEDONIA PASSUMPSICRIV	72 0.0	OP	0	823	757	123.49	2101
	VILLAGE OFLYNDONVIL LE	210	-364.9	61.0	2023	8457		2101
VTCNED8515	HARDWICK LAKE	44 30.0	O	20.0	0	0	124.33	1502
2	CALEDONIA LAMOILLE RIVE	72 22.2	OP	0	365	1545	80.431	1502
	VILLAGE OFHARDWICK	118	-205.0	20.0	365	1545		1502

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VT6NED7016	JOES BROOK		44 22.2	H	100.0	0	0	122.48	2069
2	CALEDONIA	JOES BROOK	72 4.9	IS	7500	663	2319	52.806	2066
			49	-68.4	85.0	663	2319		2066
VT6NED7010	LYNDON CENTER		44 34.9	H	65.0	0	0	92.835	2039
2	CALEDONIA	MILLER RUN	72 4.9	IS	12350	416	2343	39.608	2038
			52	-102.6	55.0	416	2343		2038
VT6NED7013	MILE 1		44 20.5	H	100.0	0	0	125.68	2056
2	CALEDONIA	JOES BROOK	72 3.0	IS	6000	703	2583	48.647	2054
			57	-79.6	85.0	703	2583		2054
VT6NED7014	MILE 2		44 19.1	H	67.0	0	0	92.478	2079
2	CALEDONIA	HOLLOW BROOK	72 7.0	IS	6533	426	1494	61.871	2076
			47	-65.6	57.0	426	1494		2076
VTGNED8042	PASSUMPSIC		44 22.8	H	22.0	700	4100	7.8275	1090
2	CALEDONIA	PASSUMPSICRIV	72 1.8	OP	0	76	885	8.8414	1090
	CENTRAL VTPUB.	SER. CO.	424	-713.9	22.0	776	4985		1090
VTGNED8030	WEST DANVILLE		44 24.6	H	180.0	1000	2500	48.464	2109
2	CALEDONIA	JOES BROOK	72 11.9	OP	0	574	174	277.75	2106
	GREEN MOUNTAIN	PAPERCO.	18	-25.1	180.0	1574	2674		2106
VTMNED6177	EAST RYGATE		44 12.4		0	0	0	1845.3	1518
2	CALENDONIA	CONN RIVER	72 3.4	OP	0	14981	21707	85. 10	1518
	CPM PAPER CO.		2215	-4295.3	8.0	14981	21707		1518
VTANED6187	AMERICAN WOOL		44 29.5		0	0	0	687.30	1280
2	CHITTENDEN	WINOOSKI	73 10.9	OP	0	6909	19638	34.998	1280
	UNKNOWN		1100	-1797.2	20.0	6909	19638		1280
VT6NED7005	BROWN RIVER		44 36.2	H	50.0	0	0	133.36	2037
2	CHITTENDEN	BROWNS RIVER	73 0.7	IS	23750	787	3445	38.704	2036
			75	-164.4	43.0	787	3445		2036

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VTGNED8008	CLARKS FALLS	44 38.4	H	44.0	3000	13000	34. 87	1029
2	CHITTENDEN LAMOILLE RIVE	73 6.6	OP	0	910	8535	3.9935	1029
	CENTRAL VTPUBLIC SE RVICE CO	690	-960.4	44.0	3910	21535		1029
VTGNED8025	GORGE EIGHTEEN	44 29.4	H	34.0	3000	15000	114. 7	1104
2	CHITTENDEN WINOOSKI RIVE	73 10.2	OP	0	2689	10857	10.507	1104
	GREEN MOUNTAIN PAPERCO.	1080	-1764.5	34.0	5689	25857		1104
VTGNED8024	GORGE NINETEEN	44 28.8	H	69.0	7200	39000	345.64	1252
2	CHITTENDEN WINOOSKI RIVE	73 7.1	OP	0	3560	10876	31.777	1252
	GREEN MOUNTAIN PAPERCO.	1040	-1699.1	69.0	10760	49876		1252
VT6NED7006	HUNTINGTON	44 21.9	H	100.0	0	0	127.47	2030
2	CHITTENDEN HUNTINGTONRIV	73 59.0	IS	26250	729	3747	34. 14	2030
		60	-110.1	85.0	729	3747		2030
VTGNED8009	MILTON FALLS	44 38.4	H	95.0	6000	35000	142.44	1115
2	CHITTENDEN LAMOILLE RIVE	73 7.1	OP	0	2624	11826	12. 44	1115
	CENTRAL VTPUBLIC SE RVICE CO	690	-960.4	95.0	8624	46826		1115
VTGNED8002	GILMAN	44 24.6	H	27.0	3390	15000	43. 64	1015
2	ESSEX CONNECTICUT R	71 43.1	OP	0	1042	14110	3. 520	1015
	GEORGIA PACIFIC CO.	1538	-2982.5	27.0	4432	29110		1015
VT6NED7004	MILE 12	44 27.4	H	95.0	0	0	140. 8	2027
2	ESSEX MOOSE RIVER	71 52.1	IS	43700	848	4128	33.931	2027
		86	-149.4	81.0	848	4128		2027
VT6NED7003	STONE DAM	44 46.6	H	180.0	0	0	732.30	2032
2	ESSEX NULHEGAN RIVE	71 40.1	IS	504000	8728	20432	35.839	2032
		114	-206.2	153.0	8728	20432		2032
VTMNED6500	EAST HIGHGATE	44 55.8	O	11.0	0	0	267.84	1362
2	FRANKLIN MISSISQUOIRIV	72 59.3	DP	0	950	5656	47.352	1362
	UNKNOWN	810	-1473.3	11.0	950	5656		1362

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VTGNED8038	ENOSBURG FALLS 2	44 54.0	H	23.0	750	3930	44,776	1119
2	FRANKLIN MISSISQUOIRIV	72 48.5	OP	0	465	3567	12,550	1119
	UNKNOWN	596	-1175.4	23.0	1215	7497		1119
VTGNED8013	FAIRFAX FALLS	44 39.0	H	85.0	2880	16000	84,518	1084
2	FRANKLIN LAMOILLE RIVE	72 59.3	OP	0	1086	9873	8,5602	1084
	CENTRAL VTPUBLIC SE RVICE CO	529	-962.2	85.0	3966	25873		1084
VTGNED8006	HIGHGATE FALLS	44 55.8	H	62.0	4600	21000	247.90	1125
2	FRANKLIN MISSISQUOIRIV	73 3.0	OP	0	3937	18675	13,274	1125
	VILLAGE OFSWANTON, VT	820	-1491.5	62.0	8537	39675		1125
VT6NED7001	SHELDON RESERVOIR	44 52.5	H	35.0	0	0	141.10	2060
2	FRANKLIN BLACK CREEK	72 56.5	IS	5430	676	2865	49,244	2058
		117	-244.8	30.0	676	2865		2058
VTGNED8007	SHELDON SPRINGS	44 54.6	H	79.0	1750	7000	19,110	1008
2	FRANKLIN MISSISQUOI	72 58.1	OP	0	201	9763	1.9572	1008
	STANDARD PACKAGE CORP.	806	-1466.0	79.0	1951	16763		1008
VTMNFD6199	SWANTON DAM	44 55.2	O	0	0	0	504.17	1462
2	FRANKLIN MISSISQU R	73 7.6	OP	0	2795	7343	68,652	1462
	VILLAGE SWANTON	847	-1179.0	10.0	2795	7343		1462
VTGNED8011	CADYS FALLS	44 34.1	H	40.0	1300	3500	15,523	1030
2	LAMOILLE LAMOILLE RIVE	72 36.6	OP	0	243	3753	4.1355	1030
	VILLAGE OFMORRISVIL LE	250	-430.4	40.0	1543	7253		1030
VT6NED7007	JOHNSON	44 37.6	H	70.0	0	0	680. 5	2035
2	LAMOILLE LAMOILLE RIVE	72 40.7	IS	42350	6278	18730	36,308	2034
		345	-594.0	60.0	6278	18730		2034
VT6NED7008	WILD BRANCH	44 33.9	H	90.0	0	0	93,251	2088
2	LAMOILLE WILD BRANCH	72 29.0	IS	20250	335	1258	74,112	2085
		30	-41.9	77.0	335	1258		2085

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VTGNED8040	WOLCOTT DAM	44 32.3	H	56.0	800	2469	21.866	1095
2	LAMOILLE LAMOILLE RIVE	72 26.4	OP	0	349	2337	9.3537	1095
	UNKNOWN	130	-225.9	56.0	1149	4806		1095
VTMNED8509	BOLTONVILLE DAM	44 10.1	O	30.0	0	0	120.24	1430
2	ORANGE WELLS RIVER	72 5.3	OP	0	481	1924	62.480	1430
	GREEN MNT.POWER CO.	94	-163.3	30.0	481	1924		1430
VT6NED7022	BOLTONVILLE #1	44 9.2	H	65.0	0	0	125.66	2036
2	ORANGE WELLS RIVER	72 4.4	IS	12025	844	3396	36.999	2035
		90	-156.4	55.0	844	3396		2035
VTMNED6222	BRADFORD	43 59.5	O	0	0	0	120.82	1232
2	ORANGE WAITS RIV	72 7.6	OP	25	698	4169	28.980	1232
	CENTRAL VT.P.S.CO.	153	-217.2	50.0	698	4169		1232
VT6NED7023	CASSVILLE	44 0.0	H	165.0	0	0	445.27	2018
2	ORANGE WAITS RIVER	72 10.0	IS	70950	4786	14989	29.705	2018
		138	-195.9	140.0	4786	14989		2018
VT6NED7025	COPPER FLAT	43 50.0	H	60.0	0	0	83.647	2089
2	ORANGE WEST BRANCH	72 19.8	IS	3750	306	1092	76.579	2086
		39	-54.4	51.0	306	1092		2086
VT6NED7024	PIERMONT	43 57.3	H	24.0	0	0	1639.5	2015
2	ORANGE CONN. RIVER	72 5.9	IS	85200	19579	61939	26.470	2015
		3104	-5506.2	20.0	19579	61939		2015
VTANED6220	UNION VILAG DM	43 46.3	C	0	0	0	115.20	1262
2	ORANGE OMPOMPAN R	72 15.4	OP	38000	615	3527	32.655	1262
	DAEN NED	126	-178.8	49.0	615	3527		1262
VTGNED8039	BAKERS FALLS	44 53.4	H	28.0	600	1200	14.573	1097
2	ORLEANS MISSISQUOIRIV	72 24.0	OP	0	148	1521	9.5805	1097
	CITIZENS UNION 8	97	-175.4	28.0	748	2721		1097

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VT6NED7002	JAY BRANCHRESERVOIR	44 57.2	H	140.0	0	0	875.70	2055
2	ORLEANS JAY BRANCH	72 25.6	IS	101500	10808	18089	48.408	2053
		132	-238.7	119.0	10808	18089		2053
VTGNED8043	LUBBER LAKE	44 54.0	H	57.0	800	4000	18.369	1127
2	ORLEANS CLYDE RIVER	72 3.5	OP	0	290	1379	13.316	1127
	UNKNOWN	108	-195.3	57.0	1090	5379		1127
VTGNED8031	NEWPORT	44 55.8	H	140.0	4000	14000	107.64	1154
2	ORLEANS CLYDE RIVER	72 10.7	OP	0	1403	5637	19. 95	1154
	CITIZENS UTILITIES CO.	140	-253.2	140.0	5403	19637		1154
VTGNED8032	NEWPORT TWO	44 56.4	H	55.0	1600	5000	27. 33	1101
2	ORLEANS CLYDE RIVER	72 10.7	OP	0	522	2714	9.9587	1101
	CITIZENS UTILITIES CO.	140	-253.2	55.0	2122	7714		1101
VTMNED8514	NORTH TROYDAM	45 0.0	O	1.0	0	0	119.24	1475
2	ORLEANS MISSISQUOIRIV	72 24.1	OP	0	277	1651	72.218	1475
	JAY TROY DEVELOPMENT	137	-247.8	16.0	277	1651		1475
VTGNED8033	PENSIONER POND	44 53.4	H	70.0	1400	4000	63. 99	1146
2	ORLEANS CLYDE RIVER	72 3.5	OP	0	641	3533	17.858	1146
	BARTON VILLAGE EXEC.	108	-195.3	70.0	2041	7533		1146
VTGNED8037	CARVERS FALLS	43 37.8	H	155.0	1560	5215	31.506	1043
2	RUTLAND POULTNEY RIVE	73 18.5	OP	0	382	6204	5. 784	1043
	UNKNOWN	185	-244.5	155.0	1942	11419		1043
VT6NED7036	EAST CLARENDON	43 31.2	H	67.0	0	0	109. 4	2020
2	RUTLAND MILL RIVER	72 55.5	IS	12000	622	3558	30.643	2020
		66	-125.7	57.0	622	3558		2020
VTMNED8531	NEEDHAMS MILL	43 42.0	O	19.0	0	0	192.34	1336
2	RUTLAND HUBBARDT RIVE	73 16.8	OP	0	855	4581	41.982	1336
	A. GRAHAM CAREY	22	-646.5	19.0	855	4581		1336

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
VTANED8519	NESHOBE	43 47.4	O	63.0	0	0	757.85	1278
2	RUTLAND NESHOBE RIVER	73 4.8	OP	0	7975	21841	34.698	1278
	CENTRAL VT. PUBLIC SERVICE	21	-617.2	63.0	7975	21841		1278
VT6NED7034	NORTH PAWLET	43 22.4	H	65.0	0	0	123.46	2041
2	RUTLAND METTAWEE RIVE	72 13.8	IS	8130	812	3047	40.506	2039
		74	-130.8	55.0	812	3047		2039
VT6NED7033	PAWLET	43 20.1	H	93.0	0	0	137.21	2017
2	RUTLAND METTAWEE RIVE	73 10.6	IS	54400	800	4647	29.526	2017
		63	-120.0	79.0	800	4647		2017
VTGNED8023	PITTSFORD	43 43.2	H	481.0	3600	8000	197.54	2114
2	RUTLAND EAST CREEK	72 55.2	OP	0	3070	-278	708.68	2111
	CENTRAL VTPUBLIC SE RVICE CO	17	-25.5	481.0	6670	7721		2111
VTMNED8525	RIPLEY MILLS	43 35.9	O	10.0	0	0	163.46	1499
2	RUTLAND OTTER CREEK	72 59.5	OP	0	339	2056	79.477	1499
	RUTLAND PLYWOOD, CO.	307	-553.9	10.0	339	2056		1499
VT6NED7035	WALLINGFORD	43 27.5	H	47.0	0	0	115. 4	2065
2	RUTLAND OTTER CREEK	72 58.8	IS	20210	536	2250	51.119	2062
		96	-126.8	40.0	536	2250		2062
VTMNED6269	BOLTON FALLS	44 21.4	O	0	0	0	279.95	1116
2	WASHINGTON WINOOSKI R	72 48.7	OP	0	3813	23131	12.102	1116
	GREEN MT. POWER CO.	850	-1388.7	50.0	3813	23131		1116
VTMNED8522	DANIELS MILL	44 17.4	O	35.0	0	0	123. 2	1431
2	WASHINGTON NORTH BRANCH	72 34.3	OP	0	538	1967	62.535	1431
	UNKNOWN	70	-135.8	35.0	538	1967		1431
VT6NED7017	E. MONTPELIER	44 16.1	H	30.0	0	0	157.56	2052
2	WASHINGTON WINOOSKI RIVE	72 28.5	IS	11550	736	3391	46.459	2050
		183	-336.6	26.0	736	3391		2050

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE OR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HO. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
VTGNED8026	MIDDLESEX TWO	44 17.9	H	52.0	3200	15000	28.448	1107
2	WASHINGTON WINDOSKI RIVE	72 41.9	OP	0	738	2442	11.647	1107
	GREEN MOUNTAIN PAPERCO.	531	-787.4	52.0	3938	17442		1107
VTMNED8512	MONTPELIERTHRFE	44 14.6	D	8.0	0	0	156.10	1529
2	WASHINGTON WINDOSKI RIVE	72 31.0	OP	0	309	1770	88.148	1529
	GREEN MNT.POWER CO	438	-649.5	8.0	309	1770		1529
VTMNED9014	MONTPELR FOUR	44 14.2	D	0	0	0	160.36	1358
2	WASHINGTON WINDOSKI R	72 31.5	OP	0	736	3475	46.145	1358
	GREEN MT. POWER CO.	201	-369.7	25.0	736	3475		1358
VTMNE06279	MORETOWN EIGHT	44 17.3		0	0	0	147.33	1348
2	WASHINGTON MAD RIVER	72 42.4	OP	0	793	3344	44. 53	1348
	RICHARD HUNGERFORD	130	-239.1	34.0	793	3344		1348
VTONE08523	NORTHFIELDMILL	44 9.4	D	25.0	0	0	99.587	1536
2	WASHINGTON DOG RIVER	72 38.7	OP	0	267	1112	89.484	1536
	UNKNOWN	62	-120.3	25.0	267	1112		1536
VTINED8028	WATERBURY RESERVOIR	44 22.8	H	148.0	5520	17000	204.99	2115
2	WASHINGTON LITTLE RIVER	72 46.1	OP	0	2759	-183	1116.0	2112
	GREEN MOUNTAIN PAPERCO.	109	-200.5	148.0	8279	16816		2112
VTANED6290	BALL MOUNTAIN	43 6.3	C	0	0	0	160.73	1181
2	WINDHAM WEST RIVER	72 46.5	OP	54600	1201	6930	23.192	1181
	DAEN NED	172	-387.3	44.2	1201	6930		1181
VTGNE08004	BELLOWS FALLS	43 8.4	H	63.0	40800	215000	960. 6	1144
2	WINDHAM CONNECTICUT R	72 26.9	OP	0	17429	55367	17.339	1144
	NEW ENGLAND POWER CO.	5414	-9305.2	63.0	58229	270367		1144
VT6NED7042	BROCKWAY MILLS	43 12.3	H	130.0	0	0	130.30	2013
2	WINDHAM WILLIAMS RIVE	72 31.9	IS	107900	852	5103	25.535	2013
		101	-178.6	111.0	852	5103		2013

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VT6NED7043	BUNDY BROOK	43 8.4	H	50.0	0	0	121.96	2061
2	WINDHAM SAXTONS RIVER	72 29.5	IS	3000	636	2414	50.503	2059
		76	-134.3	43.0	636	2414		2059
VTINED8036	HARRIMAN	42 47.3	H	390.0	33600	102000	94.603	1201
2	WINDHAM DEERFIELD RIV	72 55.2	OP	0	5241	3754	25.194	1201
	NEW ENGLAND POWER CO.	184	-451.5	390.0	38841	105754		1201
VT6NED7047	ND 10	42 56.2	H	80.0	0	0	133.91	2058
2	WINDHAM EAST BRANCH	72 56.9	IS	16000	655	2741	48.846	2056
		40	-98.7	68.0	655	2741		2056
VT6NED7045	RAWSONVILLE	43 9.1	H	80.0	0	0	129.78	2075
2	WINDHAM WINDHALL RIVE	72 49.8	IS	10000	611	2286	56.757	2072
		45	-79.5	68.0	611	2286		2072
VTCNED6294	SOMERSET RES	42 58.0	D	0	0	0	86.715	1290
2	WINDHAM DEERFELD R	72 56.9	OP	0	421	2357	36.777	1290
	NEW ENGLAND POWER CO.	30	-74.0	104.0	421	2357		1290
VTANED6291	TOWNSHEND DAM	43 2.9	CR	0	0	0	195.51	1324
2	WINDHAM WEST RIVER	72 42.1	OP	3360	1119	4861	40.220	1324
	DAEN-NED	278	-567.3	25.2	1119	4861		1324
VTGNED8005	VERNON	42 46.1	H	36.0	24400	41000	1505.7	1102
2	WINDHAM CONNECTICUT R	72 30.6	OP	0	15805	146499	10.278	1102
	NEW ENGLAND POWER CO.	6266	-11048.5	36.0	40205	187499		1102
VTANED6295	W DUMMERSTON	42 58.0	D	26.0	0	0	206.65	1259
2	WINDHAM WEST RIVER	72 37.0	OP	0	1285	6361	32.486	1259
	CENTRAL VT. PUBLIC SERVICE C	410	-836.7	26.0	1285	6361		1259
VT6NED7044	W. LONDONDERRY	43 12.7	H	50.0	0	0	93.438	2082
2	WINDHAM WEST RIVER	72 49.5	IS	3750	351	1351	69.140	2082
		43	-76.0	43.0	351	1351		2082

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VTGNED8034	CAVENDISH	43 22.8	H	120.0	1440	6100	23.317	1172
2	WINDSOR BLACK RIVER	72 35.9	OP	0	270	1068	21.820	1172
	CENTRAL VTPUBLIC SE RVICE CO	82	-150.4	120.0	1710	7168		1172
VTMNED6331	COMTU FALLS	43 17.1	O	0	0	0	164.94	1325
2	WINDSOR BLACKRIVER	72 30.1	OP	0	946	4083	40.391	1325
	JATD MEG. CO.	191	-350.5	30.0	946	4083		1325
VTCNED8501	DEWEYS MILLS POND	43 38.7	O	15.0	0	0	147.11	1478
2	WINDSOR OTTAUQUECHRIV	72 24.1	OP	0	406	2016	72.946	1478
	QUECHEE LAKES CORP	207	-372.0	15.0	406	2016		1478
VTMNED6315	DEWEYS MILLS	43 31.1	O	0	0	0	169.83	1234
2	WINDSOR OTTAUQUECH	72 28.0	OP	0	1262	5788	29.340	1234
	UNKNOWN	207	-372.0	40.0	1262	5788		1234
VTMNED6317	EMERY MILLS	43 38.6	O	0	0	0	167.11	1309
2	WINDSOR OTTAUQUECH	72 25.2	OP	0	971	4371	38.233	1309
	QUECHEE LAKES CORP.	205	-368.4	30.0	971	4371		1309
VT6NED7028	GAYSVILLE	43 46.5	H	110.0	0	0	1161.8	2053
2	WINDSOR WHITE RIVER	72 42.8	IS	85800	16539	24372	47.672	2051
		226	-407.8	94.0	16539	24372		2051
VTANED6332	GILMAN DAM	43 18.3	O	30.0	0	0	164.94	1326
2	WINDSOR BLACKRIVER	72 31.0	OP	0	946	4083	40.391	1326
	VT FIBERS CORP.	191	-350.5	30.0	946	4083		1326
VTMNED6318	HAMPSON	43 35.5	O	0	0	0	166. 2	1347
2	WINDSOR OTTAUQUECH	72 20.9	OP	0	796	3796	43.733	1347
	ROGER LAMSON	225	-404.4	25.0	796	3796		1347
VT6NED7040	HAWKS MOUNTAIN	43 23.2	H	190.0	0	0	552.90	2023
2	WINDSOR BLACK RIVER	72 33.3	IS	105405	6335	17117	32.301	2023
		111	-203.7	162.0	6335	17117		2023

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VT6NED7039	LUDLOW	43 24.3	H	35.0	0	0	98,789	2094
2	WINDSOR BLACK RIVER	72 42.4	IS	4900	313	1223	80,776	2091
		56	-99.0	30.0	313	1223		2091
VTCNED8505	MILL POND	43 28.6	C	40.0	0	0	92,975	1477
2	WINDSOR MILL BROOK	72 23.7	OP	0	333	1279	72,683	1477
	EDWARD BATTISON	43	-77.4	40.0	333	1279		1477
VTANED6313	NO HARTLAND DM	43 36.3	C	0	0	0	169,20	1327
2	WINDSDR OTTAUQUECH	72 21.6	OP	71800	894	4165	40,621	1327
	DAEN NED	220	-395.4	27.1	894	4165		1327
VTANED6314	NO SPRNGFELD D	43 20.2	CR	0	0	0	142,89	1438
2	WINDSDR BLACK RIV	72 30.7	OP	505000	495	2241	63,765	1438
	DAEN NED	158	-289.9	20.4	495	2241		1438
VT6NED7032	QUECHEE	43 38.6	H	20.0	0	0	210,68	2092
2	WINDSOR OTTAUQUECHEE	72 26.5	IS	900	923	2661	79,165	2089
		198	-281.1	17.0	923	2661		2089
VT6NED7030	RANDOLPH	43 53.2	H	50.0	0	0	101,19	2038
2	WINDSOR THIRD BRANCH	72 38.5	IS	16750	420	2556	39,584	2037
		109	-154.7	43.0	420	2556		2037
VT6NED7041	REEDVILLE	43 15.7	H	67.0	0	0	76,290	2086
2	WINDSOR MIDDLE BRANCH	72 39.3	IS	3820	271	1090	69,943	2083
		27	-44.9	57.0	271	1090		2083
VT6NED7037	RIVERSIDE	43 36.1	H	70.0	0	0	111,30	2068
2	WINDSOR OTTAUQUECHEE	72 44.3	IS	4900	360	2109	52,772	2065
		38	-72.4	60.0	360	2109		2065
VT6NED7026	ROCHESTER	43 52.7	H	50.0	0	0	108,21	2067
2	WINDSOR WHITE RIVER	72 48.5	IS	10500	490	2059	52,540	2064
		75	-119.0	43.0	490	2059		2064

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VTCNED8502	SLACK	43 17.4	O	18.0	0	0	149.75	1449
2	WINDSOR BLACK RIVER	72 28.0	OP	0	486	2270	65.946	1449
	STERLING ENTERPRISE INC	190	-348.7	18.0	486	2270		1449
VTGNED8044	TAFTSVILLEDAM	43 37.8	H	19.0	500	2000	33. 69	1370
2	WINDSOR OTTAUQUECHEE	72 28.1	OP	0	257	664	49.791	1370
	CENTRAL VT. PUB. SER. CO.	190	-269.7	19.0	757	2664		1370
VT6NED7027	WEST BR. WHITE RIVER	43 51.2	H	70.0	0	0	114.68	2095
2	WINDSOR WEST BRANCH	72 49.4	IS	7350	383	1414	81.103	2092
		44	-61.4	60.0	383	1414		2092
VT6NED7038	WEST WOODSTOCK	43 36.3	H	105.0	0	0	281.10	2026
2	WINDSOR OTTAUQUECHEE	72 33.4	IS	37280	2483	8305	33.847	2026
		123	-174.6	89.0	2483	8305		2026
VTGNED8003	WILDER	43 40.2	H	51.0	32400	69500	807.29	1077
2	WINDSOR CONNECTICUT R	72 18.0	OP	0	16259	97058	8.3176	1077
	NEW ENGLAND POWER CO.	3375	-5987.0	51.0	48659	166558		1077

NUMBER OF SITES SATISFYING CONSTRAINTS = 655 (NEW ENGLAND)

COMMAND AND CONSTRAINTS END

NEW YORK

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NYGNAN0039	GREEN ISLAND	42 45.0	H	16.0	6000	28400	1258.7	1152
2	ALBANY HUDSON RIVER	73 41.0	OP	0	11487	66262	18.997	1152
		8100	-13574.5	15.0	17487	94662		1152
NY7NCB0001	PORTAGE	42 34.1	H	110.0	0	0	6739.1	2021
2	ALLEGANY GENESEE RIVER	78 2.8	IS	283000	51143	218941	30.780	2021
		985	1400.0	439.0	51143	218941		2021
NYCNAB0025	WHITNEY POINT	42 20.1	CR	95.0	0	0	267.48	1379
2	BROOME OTSELIC RIVER	75 58.0	OP	86440	1954	5254	50.911	1379
	DAENNAB	255	471.0	28.3	1954	5254		1379
NYANAN0059	ALICE FALLS	44 30.9		48.0	0	0	423.96	1174
2	CLINTON AUSABLE RIVER	73 27.2	OP	0	6604	19218	22. 60	1174
		469	-652.8	48.0	6604	19218		1174
NYHNAN0041	CADYVILLE CONCRETE DAM	44 41.8		45.0	2400	15000	464.13	1186
2	CLINTON SARANAC	73 37.5		2295	6190	19544	23.747	1186
	NEW YORK STATE ELECTRIC + GA	576	-801.7	75.0	8590	34544		1186
NYCNAN0045	HIGH FALLSDAM	44 37.5	H	60.0	0	0	506.20	1209
2	CLINTON SARANAC RIVER	73 45.6	OP	1610	7392	19513	25.941	1209
	EASTERN NYPOWER COR P	495	-789.3	47.0	7392	19513		1209
NYGNAN0049	KENT FALLS	44 42.6	H	48.0	5600	37500	1055.6	1216
2	CLINTON SARANAC	73 37.5	OP	50	33431	39788	26.530	1216
	NEY YORK ST EL G CORP	576	-801.7	152.0	39031	77288		1216
NYGNAN0048	MILL C	44 42.0	H	35.0	2250	12000	431.54	1193
2	CLINTON SARANAC	73 36.6	OP	20	4763	17497	24.663	1193
	NEY YORK ST EL G CORP	575	-800.3	65.0	7013	29497		1193
NYGNAN0042	PLATTSBURGNO 1	44 40.9		44.0	2400	10000	450.18	1198
2	CLINTON SARANAC	73 28.0		0	8930	17954	25. 73	1198
	GEORGIA PACIFIC CORP	597	-1061.1	43.0	11330	27954		1198

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NYGNAN0046	PLATTSBURG	44 40.8		20.0	600	2600	61.480	1123
2	CLINTON SARANAC	73 28.1	OP	50	524	4709	13. 55	1123
	IMPERIAL PAPER CO	576	-801.7	20.0	1124	7309		1123
NYGNAN0050	PLATTSBURGNO 2	44 40.2	H	28.0	850	5000	250.21	1230
2	CLINTON SARANAC	73 29.7	OP	0	3662	8661	28.889	1230
	GEORGIA PACIFIC CORP	596	-829.6	27.0	4512	13661		1230
NYDNAN0054	TREEDWELLSMILL DAM	44 40.0		30.0	0	0	431.44	1251
2	CLINTON SARANAC RIVER	73 30.0		0	4512	13661	31.581	1251
	GEORGIA PACIFIC CORP	596	-829.6	27.0	4512	13661		1251
NYHNAN0172	STUYVESANTFALLS	42 22.0	H	13.5	2800	11700	446.71	1288
2	COLUMBIA KINDERHOOKCRE	73 43.9	OP	114	5102	12406	36. 7	1288
	NIAGARA MOHAWK CORP.	325	-434.7	103.0	7902	24106		1288
NYCNAP0017	CANNONSVILLE DAM	42 3.7	SO	175.0	0	0	1156.7	1163
2	DELAWARE W BR DELAWARE	75 22.5	OP	450000	19009	56071	20.630	1163
	CITY OF NEW YORK	453	801.0	148.1	19009	56071		1163
NYCNAP0016	PEPACTON (DOWNSVILLE)	42 4.6	SR	204.0	0	0	1174.3	1238
2	DELAWARE E BR DELAWARE	74 58.0	OP	609740	21870	39529	29.708	1238
	N Y CITY	371	692.0	178.5	21870	39529		1238
NYANAN0058	GROVEVILLEMILLS	41 30.7	H	30.0	0	0	276.11	1333
2	DUTCHESS FISHKILL CREE	74 56.7	OP	14	2255	6696	41.233	1333
	BEACON PIECE + DYE	270	-377.9	32.0	2255	6696		1333
NYGNAN0056	WAPPINGERSFALLS	41 34.9	H,R	24.0	1300	7500	277.46	1377
2	DUTCHESS WAPPINGER CRE	73 56.0	OP	123	3071	5478	50.649	1377
	BN+A REALTY CORP.	197	-275.7	85.0	4371	12978		1377
NYGNCB0016	SPRINGVILLE	42 28.8	H	32.0	500	2000	10. 26	1059
2	ERIE CATTARAUGUS C	78 42.1	OP	0	83	1495	6.7053	1059
	VILLAGE OFSPRINGVIL LE	220	310.0	30.0	583	3495		1059

SITE ID NUMBER / ACTV. INV.	PROJECT NAME / PRIMARY CO. -NAME OF STREAM / OWNER	LATITUDE / LONGITUDE / DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. / STATUS / AVE. Q (CFS)	DAM HT / MX.STOR. / PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. / INC. CAP. / TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG. / INC.ENERGY / TOT.ENERGY (MWH) (MWH) (MWH)	ANNUL. COST / ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC / ERC NONECONOMIC / ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NYCNAN0070	CHAIN LAKES	43 36.9	S,P	90.0	0	0	611.73	1240
2	ESSEX CEDAR RIVER	74 32.7	OP	0	6815	20545	29.774	1240
		160	-358.4	90.0	6815	20545		1240
NYCNAN0068	CHERRY PATCH	44 17.9		70.0	0	0	171.13	1231
2	ESSEX WEST BR. AUSA	73 54.3	OP	0	1029	5906	28.973	1231
		177	-282.2	70.0	1029	5906		1231
NYANAN0067	CLINTONVILLE	44 27.0		40.0	0	0	372. 6	1191
2	ESSEX AUSABLE RIVER	73 35.0	OP	0	5013	15179	24.511	1191
		447	-622.2	40.0	5013	15179		1191
NYDNAN0071	J J ROGERSDAM	44 26.6	FC	37.0	0	0	1245.9	1300
2	ESSEX AUSABLE RIVER	73 41.9	OP	56	15867	33296	37.420	1300
	JJ ROGERS + CO	400	-637.8	92.0	15867	33296		1300
NYANAN0069	KETTLE MOUNTAIN	43 47.9	R,S,H	36.0	0	0	521.72	1192
2	ESSEX HUDSON	74 5.9	OP	0	6390	21257	24.542	1192
		641	-1274.1	30.0	6390	21257		1192
NYGNAN0063	ROME DAM	44 26.6		37.0	1250	4700	76. 99	1375
2	ESSEX WEST BRANCH A	73 41.9	DP	0	968	1507	50.492	1375
	J+J ROGERSCO.	237	-377.9	32.0	2218	6207		1375
NYDNAN0072	TICONDEROGA NO 3	43 50.9		28.0	0	0	658. 0	1256
2	ESSEX TICONDEROGA C	73 25.9	OP	0	6827	20406	32.244	1256
	INTERNATIONAL PAPER CO	183	-313.6	134.0	6827	20406		1256
NYANAN0066	UNDERWOOD	44 4.9		22.0	0	0	479.79	1305
2	ESSEX SARANAC	73 39.9	OP	0	4571	12718	37.724	1305
	IMPERIAL PAPER	599	-943.7	22.0	4571	12718		1305
NYDNAN0073	WADHAM NO 1	44 22.0		48.0	0	0	219.88	1328
2	ESSEX BOUQUET RIVER	73 18.0	OP	0	2043	5394	40.759	1328
		134	-213.6	48.0	2043	5394		1328

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NYCNCB0022	CHASM POWER CO DAM	44 55.8	H	38.0	0	0	240.52	1128
2	FRANKLIN CHATEUGAY RIV	74 6.7	IS	69	2159	17408	13.816	1128
	NYS ELEC GAS	118	150.0	280.0	2159	17408		1128
NYBNCB0029	CHATEAUGAYMILL	44 54.4	H	0	0	0	231.77	1187
2	FRANKLIN CHATEAUGAYRIV	74 5.0	IS	0	1227	9752	23.765	1187
	NEW YORK STATE ELEC + GA	114	150.0	150.0	1227	9752		1187
NYGNCB0026	MOGANSBURG	44 58.4	H	10.0	700	3743	25.404	1133
2	FRANKLIN ST REGIS RIVE	74 39.8	OP	0	142	1681	15.105	1133
	NIAGARA MOHAWK POWERCOR	842	1090.0	10.2	842	5424		1133
NYHNAN0082	INGHAMS	43 5.9	H	122.0	6400	28000	790.67	1255
2	FULTON EAST CANADA C	74 41.9	OP	50	20570	24603	32.136	1255
	NIAGARA MOHAWK POWERCORP	276	-663.8	125.0	26970	52603		1255
NYDNAN0078	IRVING POND DAM	43 9.8	S	30.0	0	0	444.47	1330
2	FULTON TR TO CANADA	74 28.7	OP	2140	4800	10831	41. 35	1330
	NEW YORK POWER AND LIGHT	23	-675.9	27.0	4800	10831		1330
NYDNAN0077	PECKS LAKEDAM	43 6.1	H	45.0	0	0	417.11	1265
2	FULTON PECK CREEK	74 26.0	OP	18260	5794	12641	32.995	1265
	MOHAWK HYDRO-ELECTRIC CO	18	-529.0	40.0	5794	12641		1265
NYDNAN0086	CAIRO	42 17.7	H	16.0	0	0	368.39	1298
2	GREENE CATSKILL CREE	74 1.0	OP	60	4812	9902	37.201	1298
	CHG + E	227	-462.3	40.0	4812	9902		1298
NYDNAN0088	INDIAN LAKE STONE DAM	43 45.3	R	47.0	0	0	223.32	1335
2	HAMILTON INDIAN RIVER	74 16.5	OP	58200	1890	5345	41.778	1335
	INDIAN RIVER CO	8	-235.1	41.0	1890	5345		1335
NYANAN0092	PISECO LAKE	43 31.9	S	32.7	0	0	263.95	1296
2	HAMILTON WEST BR SACAN	74 31.0	OP	0	2129	7113	37.107	1296
		149	-333.7	32.8	2129	7113		1296

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NYGNAN0102	DOLGEVILLE	43 5.9	H	51.0	320	1200	331.79	1147
2	HERKIMER EAST CANADA C	74 46.3	OP	0	6419	18399	18. 32	1147
	VILLAGE OFDOLGEVILL E	261	-627.7	51.0	6739	19599		1147
NYANAN0098	KYSER LAKEDAM	43 3.7	H,R	125.0	0	0	1119.9	1185
2	HERKIMER EAST CANADA C	74 46.1	OP	3076	15599	47227	23,714	1185
	NIAGARA MOHAWK	278	-668.6	116.0	15599	47227		1185
NYGNAN0101	LITTLE FALLS	43 0.0	-	52.0	150	1300	158.33	1197
2	HERKIMER W. CANADA CRE	74 52.0		0	1035	6327	25. 24	1197
		375	-901.9	19.0	1185	7627		1197
NYJNCB0039	MOSHIER	43 53.2	HS	93.0	8000	40940	102. 7	1112
2	HERKIMER BEAVER RIVER	75 5.9	OP	7339	1197	8534	11,960	1112
	NIAGARA MOHAWK POWERCO	182	230.0	213.0	9197	49474		1112
NY4NAN0095	PROSPECT	43 16.9		52.0	0	0	2430.5	1283
2	HERKIMER WEST CANADA C	75 9.0		0	21459	69129	35,159	1283
		375	-895.9	138.0	21459	69129		1283
NYINAN0100	PROSPECT DAM	43 16.9	H	52.0	17325	74700	532.56	2108
2	HERKIMER WEST CANADA C	75 9.4	OP	3214	21636	2562	207.85	2105
	NIAGARA MOHAWK POWERCORP	375	-895.9	137.5	38961	77262		2108
NYCNCB0036	STILLWATERRESERVOIR DAM	43 53.8	S	0	0	0	181.24	1235
2	HERKIMER BEAVER RIVER	75 3.1	IS	0	1013	6162	29,410	1235
	STATE OF NEW YORK	178	230.0	30.0	1013	6162		1235
NYGNAN0099	TRENTON FALLS	43 17.9	H	60.0	23600	132700	1183.5	1437
2	HERKIMER WEST CANADA C	75 11.9	OP	165	71248	18638	63,503	1437
	NIAGARA MOHAWK CORP	376	-898.3	266.0	94848	151338		1437
NYDNAN0104	WILMURT	43 21.9		100.0	0	0	1102.9	1272
2	HERKIMER WEST CANADA C	74 54.3	OP	0	14129	32788	33,639	1272
		226	-539.9	100.0	14129	32788		1272

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NYGNC80055	BLACK RIVER POWER DAM	44 0.1	H	20.0	6000	44800	181.16	1173
2	JEFFERSON BLACK RIVER	75 48.4	OP	128	2049	8268	21.909	1173
	NIAGARA MOHAWK POWERCOR	1856	3850.0	34.0	8049	53068		1173
NYYNC80044	BROWNVILLEDAM	44 0.0	H	30.0	0	0	3276.2	1371
2	JEFFERSON BLACK RIVER	75 58.9	IS	30	16116	65785	49.801	1371
	PREMOIO CORP.	1913	4000.0	29.0	16116	65785		1371
NYGNC80064	CROWN ZELLERBACH CORP DAM	43 58.8	H	32.0	1125	5000	46.747	1040
2	JEFFERSON BLACK RIVER	75 37.1	OP	0	559	9738	4.8003	1040
	CROWN ZELLERBACM CORP	1806	3750.0	30.0	1684	14738		1040
NYGNC80056	DEXTER	44 0.3	H	25.0	1740	7000	31.159	1026
2	JEFFERSON BLACK RIVER	76 2.4	OP	700	242	8200	3.7996	1026
	DEXTER HYDRO-ELECT CORP	1917	4000.0	12.0	1982	15200		1026
NYGNC80066	DIAMOND ISLAND	43 58.6	H	12.0	1200	3100	56.708	1054
2	JEFFERSON BLACK RIVER	75 53.2	OP	0	415	9289	6.1045	1054
	NIAGARA MOHAWK POWERCOR	1875	3900.0	10.0	1615	12389		1054
NYONC80049	FELTS MILLS DEVEL DAM	44 1.3	H	75.0	0	0	422.44	1082
2	JEFFERSON BLACK RIVER	75 45.7	IS	8495	6315	49931	8.4604	1082
	NIAGARA MOHAWK POWERCOR	1851	3850.0	44.0	6315	49931		1082
NYCNC80045	GLEN PARK MILL A SITE	43 59.9	H	33.0	0	0	368. 8	1073
2	JEFFERSON BLACK RIVER	75 56.1	IS	50	5475	46005	8. 9	1073
	NIAGARA MOHAWK POWERCOR	1878	3900.0	50.0	5475	46005		1073
NYCNC80046	GLEN PARK MILL C	43 58.6	H	33.0	0	0	367.82	1074
2	JEFFERSON BLACK RIVER	75 52.4	IS	50	5469	45956	8. 37	1074
	NIAGARA MOHAWK POWERCOR	1876	3900.0	50.0	5469	45956		1074
NYCNC80054	GLEN PARK MILL B	43 58.6	H	33.0	0	0	371.24	1072
2	JEFFERSON BLACK RIVER	75 53.5	IS	50	5545	46593	7.9677	1072
	NIAGARA MOHAWK POWERCOR	1902	4000.0	50.0	5545	46593		1072

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NYMNCB0048	GREAT BENDDAM	44 2.1	H	23.0	0	0	515.25	1168
2	JEFFERSON BLACK RIVER	75 43.1	IS	255	3607	24200	21.290	1168
	SHERMAN PAPER CO	1836	3800.0	16.0	3607	24200		1168
NYGNCB0058	HERRINGS	44 1.3	H	25.0	5400	25840	275.97	1175
2	JEFFERSON BLACK RIVER	75 39.0	OP	670	2294	12187	22.643	1175
	NIAGARA MOHAWK POWERCOR	1810	3800.0	19.5	7694	38027		1175
NYHNCB0060	KAMARGO	44 0.7	H	17.0	5400	29150	88.409	1060
2	JEFFERSON BLACK RIVER	75 47.7	OP	360	1048	13183	6.7062	1060
	NIAGARA MOHAWK POWERCORP	1855	3850.0	27.0	6448	42333		1060
NYCNCB0047	NYNONAME 23	43 59.0	S	10.0	0	0	423.79	1263
2	JEFFERSON BLACK RIVER	75 51.7	IS	1308	1837	12964	32.687	1263
	CITY OF WATERTOWN	07MV172 DQ&13300J0			9.05	1837	11964)8	1269
		F1					)	00000000000000
NYHNCB0061	SEWALLS ISLAND	43 58.6	H	13.0	2000	14489	81.473	1120
2	JEFFERSON BLACK RIVER	75 53.6	OP	50	723	6451	12.628	1120
	NIAGARA MOHAWK POWERCOR	1875	3900.0	17.0	2723	20940		1120
NYMNCB0051	TANNERY ISLAND DAM	43 58.6	H	15.0	0	0	418.54	1210
2	JEFFERSON BLACK RIVER	75 37.0	IS	50	2141	16096	26. 2	1210
	ISLAND PAPER CO	1797	3700.0	13.0	2141	16096		1210
NYINCB0053	THERESA #1	44 13.0	H	34.5	1615	6523	63.861	1087
2	JEFFERSON INDIAN RIVER	75 47.7	OP	145	552	7308	8.7380	1087
	NIAGARA MOHAWK POWERCOR	323	420.0	66.5	2167	13831		1087
NYGNCB0057	WATERTOWN MUN MAIN DIVER DAM	43 58.6	H	14.0	5400	33000	86.657	1091
2	JEFFERSON BLACK RIVER	75 52.5	OP	50	1054	9551	9. 727	1091
	WATERTOWN MUNICIPAL ELEC	1874	3900.0	27.0	6454	42551		1091

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NYCNCB0050	WEST END DAM	43 58.8	H	0	0	0	443.82	1190		
2	JEFFERSON BLACK RIVER	75 37.4	IS	0	2474	18155	24.445		1190	
	WEST END PAPER CO	1800	3750.0	14.0	2474	18155				1190
NYANCB0075	BEAVER FALLS DS	43 53.0	H	17.0	0	0	223.20	1250		
2	LEWIS BEAVER RIVER	75 25.7	OP	50	1057	7069	31.574		1250	
	BEAVER FALLS POWER CO.	324	600.0	20.0	1057	7069				1250
NYGNCB0076	DENLEY DAM	43 32.7	H	33.0	600	3300	23.828	1093		
2	LEWIS BLACK RIVER	75 19.3	OP	50	201	2597	9.1729		1093	
	CATALOO ELECTRIC SERVICE	398	515.0	22.0	801	5897				1093
NYJNCB0041	EAGLE FALLS	43 54.2	H	21.0	6050	31770	109.74	1134		
2	LEWIS BEAVER RIVER	75 11.8	OP	668	1220	7186	15.271		1134	
	NIAGARA MOHAWK POWERCOR	224	290.0	136.0	7270	38956				1134
NYJNCB0040	ELMER	43 55.6	H	20.0	1500	9707	19.685	1149		
2	LEWIS BEAVER RIVER	75 17.3	OP	345	283	1081	18.196		1149	
	NIAGARA MOHAWK POWERCOR	250	320.0	37.0	1783	10788				1149
NY7NCB0084	FOWLERSVILLE	43 37.3	H	60.0	0	0	3266.3	2040		
2	LEWIS MOOSE RIVER	75 16.4	IS	0	18157	81186	40.232		2114	
	NEW YORK STATE	422	540.0	195.0	18157	81186				2114
NYGNCB0074	HARRISVILLE	44 8.8	H	0	520	1700	21.688	1071		
2	LEWIS W BR OSWEGATC	75 18.9	IS	0	205	2747	7.8925		1071	
	HARRISVILLE PAPER CORP	189	500.0	34.0	725	4447				1071
NYMNCB0069	LYONSDALE DAM	43 36.9	H	38.0	0	0	235.60	1159		
2	LEWIS MOOSE RIVER	75 18.2	IS	475	1933	11821	19.929		1159	
	BURROWS PAPER CO	426	590.0	37.0	1933	11821				1159
NYGNCB0082	MILL B	43 36.7	H	40.0	1100	5300	34.288	1079		
2	LEWIS MOOSE RIVER	75 19.8	OP	0	403	4111	8.3397		1079	
	GEORGIA PACIFIC CORP	431	560.0	30.0	1503	9411				1079

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NYGNCB0079	MILL NO 3	43 36.5	H	70.0	4400	21100	64.794	1022
2	LEWIS BLACK RIVER	75 21.4	OP	0	741	17810	3.0380	1022
	GEORGIA PACIFIC CORP	871	960.0	69.0	5141	33910		1022
NYGNCB0081	MILL NO 5	43 36.9	H	52.0	2000	9600	27.350	1039
2	LEWIS MOOSE RIVER	75 19.6	OP	0	477	5903	4.6327	1039
	GEORGIA PACIFIC CORP	426	550.0	50.0	2477	15503		1039
NY4NCB0073	MOOSE RIVER	43 36.1	H	50.0	0	.0	2451.1	2044
2	LEWIS MOOSE RIVER	75 9.4	IS	0	20010	67734	36.186	2113
		368	470.0	140.0	20010	67734		2113
NYGNCB0080	PORT LEYDEN	43 34.9	H	0	625	3000	18.928	1061
2	LEWIS BLACK RIVER	75 20.4	OP	0	157	2756	6.8659	1061
	CATALDO ELECTRIC SERVICE	407	525.0	21.0	782	5756		1061
NYJNCB0037	TAYLORVILLE DAM	43 55.6	H	21.0	4500	25275	50.978	1099
2	LEWIS BEAVER RIVER	75 18.1	OP	1091	532	5171	9.8574	1099
	NIAGARA MOHAWK POWERCOR	251	320.0	104.0	5032	30446		1099
NYCNCB0088	MOUNT MORRIS	42 44.0	C	215.0	0	0	312.14	1137
2	LIVINGSTON GENESEE RIVER	77 54.4	IS	435000	2668	19825	15.744	1137
	DAEN NCB	1070	1200.0	101.9	2668	19825		1137
NYGNCB0087	STATION 160	42 44.2	H	30.0	340	2900	42.116	1233
2	LIVINGSTON GENESEE R	77 52.8	OP	50	266	1438	29.272	1233
	ROCHESTER GAS + EL CORP	1071	1520.0	20.0	606	4338		1233
NYANCB0090	NEW YORK STATE BARGECANAL DA	43 9.2	NH	15.0	0	0	483.64	1249
2	MONROE GENESEE RIVER	77 36.6	IS	50	2813	15562	31.77	1249
	NEW YORK STATE	2460	2730.0	14.0	2813	15562		1249
NYMNCB0092	STATION "26	44 35.9	HN	6.0	3000	16000	54.936	1034
2	MONROE GENESEE RIVER	77 36.7	OP	761	779	7978	4.3790	1034
	ROCHESTER GAS-ELEC CORP	2460	2730.0	25.0	3779	23978		1034

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NYHNCB0093	STATION #2	43 9.8	H	6.0	6500	51000	114.82	1086
2	MONROE GENESSEE RIVE	77 37.0	OP	107	1888	13178	8.7127	1086 1086
	ROCHESTER GAS + ELECCOR	2460	2730.0	91.0	8388	64178		
NYHNAN0173	BEAROSLEE FALLS	43 1.0	H	63.0	20000	49600	368.63	2101
2	MONTGOMERY EAST CANADA C	74 44.7	OP	0	16953	4005	92. 34	2098 2101
	NIAGARA MOHAWK POWERCORP.	288	-535.7	158.5	36953	53605		
NY4NCB0096	LOWER NIAGARA RIVER DEVELOPM	43 8.0	H	110.0	0	0	33787	2000
2	NIAGARA NIAGARA RIVER	79 3.0	IS	20000	408131	3575235	9.4505	2000 2000
		263460	204000.0	80.0	408131	3575235		
NYLNCB0097	ROBERT MOSES-NIAGARA	43 8.4	H	58.0	1953900	13000000	2170.1	1007
2	NIAGARA NIAGARA RIVER	79 2.4	OP	60000	193717	-1158159	1.8738	1007 1007
	POWER AUTH-STATE OF NY	263460	204000.0	314.0	2147617	11841840		
NYONAN0105	DELTA DAM	43 17.9	S.N	100.0	0	0	608. 4	1254
2	ONEIDA MOHAWK RIVER	75 24.0	OP	63738	3884	18964	32. 61	1254 1254
	NYS DOT	140	-347.5	100.0	3884	18964		
NY6NCB0099	FISH CREEK#3	43 23.8	H	110.0	0	0	2163.3	2057
2	ONEIDA EAST BRANCH-F	75 33.1	IS	0	20288	44321	48.809	2055 2055
		109	310.0	240.0	20288	44321		
NY6NCB0101	FISH CREEK#1	43 19.5	H	70.0	0	0	2135.5	2044
2	ONEIDA EAST BRANCH F	75 35.6	IS	0	16678	49644	43. 15	2042 2042
		172	490.0	190.0	16678	49644		
NY6NCB0102	HAWKINSVILLE	43 30.3	O	160.0	0	0	6556.1	1005
2	ONEIDA BLACK RIVER	75 17.3	IS	242000	19669	52376	125.17	1002 1002
		265	340.0	139.0	19669	52376		
NY6NCB0100	NO 2	43 20.7	H	90.0	0	0	2189.6	2072
2	ONEIDA EAST BRANCH F	75 35.0	IS	0	17879	40286	54.352	2069 2069
		150	430.0	160.0	17879	40286		

SITE ID NUMBER ACTV. INV.	PRJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENERGY INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NYGNCB0111	BALDWINSVILLE	43 9.4	H	13.0	640	3648	4,125	1052
2	ONONDAGA SENECA RIVER	76 20.1	OP	0	73	2344	. 240	1052 1052
	NIAGARA MOHAWK POWERCOR	3139	3320.0	8.0	713	5992		
NYANAN0109	N Y NO NAME-45	41 30.0	H	40.0	0	0	348.66	1271
2	ORANGE NEVERSINK RIV	74 38.6	OP	1092	4439	10372	33,614	1271 1271
	OAKLAND POWER CO	302	865.0	40.0	4439	10372		
NYCNAN0112	NO NAME #66	41 33.5	H	50.0	0	0	436.31	1211
2	ORANGE WALLKILL RIVE	74 11.7	OP	255	5802	16700	26,126	1211 1211
	RUSSEL LEWIS	556	-856.3	36.0	5802	16700		
NYINCB0114	GLENWOOD	43 14.2	H	60.0	1500	6870	23,286	1131
2	ORLEANS OAK ORCHARD C	78 23.3	OP	1675	433	-1629	14,286	1131 1131
	NIAGARA MOHAWK POWERCOR	143	200.0	59.0	1933	5240		
NYHNCB0124	GRANBY	43 19.1	NM	17.0	3052	18660	45. 5	1016
2	OSWEGO OSWEGO RIVER	76 25.2	OP	16	972	14557	3, 915	1016 1016
	NIAGARA MOHAWK POWERCORP	5018	5870.0	24.5	4024	33217		
NYGNCB0119	HIGH DAM	43 26.6	NM	29.0	7600	50000	141.90	1113
2	OSWEGO OSWEGO RIVER	76 29.7	OP	314	2562	11857	11,967	1113 1113
	NIAGARA MOHAWK POWERCOR	5097	5960.0	21.0	10162	61857		
NYGNCB0120	LOWER FULTON DAM	43 19.3	NM	17.0	1250	7200	42,276	1055
2	OSWEGO OSWEGO RIVER	76 25.2	OP	16	374	6886	6,1388	1055 1055
	NIAGARA MOHAWK POWERCOR	5018	5870.0	17.5	1624	14086		
NYGNCB0121	OSWEGO FALLS	43 18.9	NM	10.0	8756	39000	411.14	1156
2	OSWEGO OSWEGO RIVER	76 24.8	OP	870	3872	21383	19,227	1156 1156
	NIAGARA MOHAWK POWERCOR	5018	5870.0	16.5	12628	60383		
NYINCB0116	SALMON R LOWER RES DAM AT AL	43 31.5	H	51.0	7500	22710	360.69	2110
2	OSWEGO SALMON RIVER	75 58.3	OP	1825	2849	-719	501.20	2110 2110
	NIAGARA MOHAWK POWERCOR	198	260.0	65.0	10349	21990		

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NYGNCB0118	VARICK	43 26.8	HN	12.0	8800	44190	48,410	1019
2	OSWEGO OSWEGO RIVER	76 30.0	OP	50	879	14721	3,2883	1019
	NIAGARA MOHAWK POWERCOR	5097	5960.0	20.0	9679	58911		1019
NYCNAB0031	EAST SIONEY	42 19.5	CR	128.5	0	0	193.32	1344
2	OTSEGO OULCOUT CR	75 13.4	OP	58300	1698	4491	43. 45	1344
	OAENNAB	102	173.0	49.5	1698	4491		1344
NYONAN0119	CROTON FALLS DAM	41 21.5	S	112.0	0	0	477.90	1264
2	PUTNAM WEST CROTON R	73 39.8	OP	43000	4565	14552	32,839	1264
	CITY OF NEW YORK	168	-235.4	112.0	4565	14552		1264
NYONAN0126	HOOSIC FALLS	42 54.0		30.0	0	0	409.93	1292
2	RENSSELAER HOOSIC	73 22.0		32	4393	11139	36,800	1292
		339	-630.6	30.0	4393	11139		1292
NYGNAN0128	JOHNSONVILLE	42 55.0	H	38.0	4800	12000	331.62	1176
2	RENSSELAER HOOSIC	73 30.0	OP	0	6059	14620	22,681	1176
	NIAGRA MOHAWK CORP.	604	-1123.6	40.0	10859	26620		1176
NYGNAN0176	BAKERS FALLS	43 17.9	H	23.0	2250	9000	35. 88	1009
2	SARATOGA HUDSON	73 35.0	OP	0	708	16901	2. 761	1009
	NIAGARA MOHAWK CORP.	2810	-699.4	58.0	2958	25901		1009
NYANAN0139	CONKLINGVILLE DAM \EJ WEST'	43 19.1	CNSHO	95.0	0	0	931.96	1212
2	SARATOGA SACANOAGA	73 55.2	OP	690000	14097	35655	26,138	1212
	HUDSON RV BLK RV REGOIS	1044	-2011.4	35.0	14097	35655		1212
NYBNAN0136	CONKLINGVILLE DAM	43 19.1	O,H,R	96.0	0	0	2601.0	1199
2	SARATOGA SACANOAGA RIV	73 55.2	OP	181000	33731	103664	25. 90	1199
	HUDSON RIVER REG DIST.	1055	-2077.8	80.0	33731	103664		1199
NYGNAN0179	CURTIS	43 15.0	H	24.0	4700	22000	1097.4	1207
2	SARATOGA HUDSON	73 50.0	OP	0	14570	42740	25,676	1207
	INTERNATIONAL PAPER CO.	2755	-4881.3	24.0	19270	64740		1207

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NYGNAN0184	FEEDER DAM	43 21.9		17.0	6000	28000	973.53	1237
2	SARATOGA HUDSON	73 39.9		0	12099	32804	29,676	1237
	NYS DOT + NIAGARA MOHAWK	2700	-4783.9	23.0	18099	60804		1237
NYANAN0181	FORT EDWARD	43 15.9		38.0	0	0	1145.7	1122
2	SARATOGA HUDSON	73 33.0		0	19072	89709	12,771	1122
	NIAGARA MOHAWK	2815	-4987.6	38.0	19072	89709		1122
NYGNAN0178	MECHANICVILLE	42 53.0	S	18.0	4500	31000	1331.8	1248
2	SARATOGA HUDSON	73 41.0		0	13582	43053	30,934	1248
	SARATOGA BOARD MILL CORP.	4500	-7498.5	18.0	18082	74053		1248
NYGNAN0183	MECHANICVILLE	42 55.0	H	17.5	4500	39420	1582.1	1343
2	SARATOGA HUDSDN	73 39.9		0	16347	36813	42,977	1343
	NY STATE-NIAGARA MOHAWK	4572	-7618.5	17.5	20847	76233		1343
NYGNAN0182	MOREAU	43 16.0	H	23.0	4800	42000	115.32	1096
2	SARATOGA HUDSON	73 35.9	OP	0	1500	12096	9.5341	1096
	NIAGARA MOHAWK CORP.	2812	-1274.1	66.5	6300	54096		1096
NYDNAN0137	NO NAME #15	43 14.8	H	50.0	0	0	2561.5	1188
2	SARATOGA UPPER HUDSON	73 49.2	OP	15	43672	106193	24.121	1188
	WARREN CURTIC MFG CO	2760	-4890.2	36.0	43672	106193		1188
NYHNAN0180	PALMER FALLS	43 15.0	H	40.0	3200	30000	1461.7	1143
2	SARATOGA HUDSON	73 48.9	OP	45	20293	85510	17. 94	1143
	INTERNATIONAL PAPER CO.	1664	-2948.3	85.0	23493	115510		1143
NYGNAN0187	SCHUYLERVILLE	43 5.9	H	40.0	1200	7600	51.204	1189
2	SARATOGA FISH CREEK	73 34.8	OP	0	402	2098	24.403	1189
	NIAGARA MOHAWK CORP.	252	-283.2	60.0	1602	9698		1189
NYGNAN0185	SOUTH GLENFALLS	43 17.9	H	10.0	3800	27000	2421.7	1170
2	SARATOGA HUDSON	73 39.0	OP	0	52030	113215	21.390	1170
	NIAGARA MOHAWK POWERCORP.	2807	-4973.5	47.0	55830	140215		1170

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NYHNAN0186	STEWARTS BRIDGE	43 17.9	H	112.0	30000	118000	256.30	1221
2	SARATOGA SACANDAGA	73 52.0	OP	0	8626	9348	27.416	1221
	NIAGARA MOHAWK	1054	-1994.7	100.0	38626	127348		1221
NYANAN0175	STILLWATER	42 56.0		9.0	0	0	637.92	1220
2	SARATOGA HUDSON	73 39.1	OP	0	3753	23328	27.345	1220
		3782	-6302.1	9.0	3753	23328		1220
NYANAN0177	STILLWATER	42 56.0		14.0	0	0	767.25	1167
2	SARATOGA HUDSON RIVER	73 39.0		50	5804	36077	21.266	1167
		3760	-6265.4	14.0	5804	36077		1167
NYANAN0174	WATERFORD	42 47.9		14.0	0	0	754. 3	1157
2	SARATOGA HUDSON R	73 41.0		0	5711	39022	19.322	1157
		4570	-7615.1	14.0	5711	39022		1157
NYANAN0190	WATERFORD	42 47.9		14.0	0	0	746.88	1155
2	SARATOGA HUDSON RIVER	73 41.9		0	5660	38994	19.153	1155
		4620	-7698.5	14.0	5660	38994		1155
NYHNAN0191	CRESCENT	42 47.9	N,H	39.0	5600	39000	1771.2	1273
2	SCHENECTADY MOHAWK RIVER	73 48.0	OP	2100	25998	52370	33.821	1273
		3456	-5779.1	28.0	31598	91370		1273
NYGNAN0055	VISCHER FERRY	42 47.9	N,H	38.0	5600	35000	752.49	1150
2	SCHENECTADY MOHAWK RIVER	73 48.9	OP	2600	11222	41017	18.345	1150
	NYSDOT	3400	-5685.4	29.2	16822	76017		1150
NYINC80125	SENECA FALLS	42 54.8	H	68.0	8000	14800	41.771	1020
2	SENECA SENECA RIVER	76 47.3	OP	********	1143	12567	3.3236	1020
	NY STATE ELEC + GAS CORP	778	910.0	50.0	9143	27367		1020

SITE ID NUMBER ACTV. INV.	PROJECT NAME / PRIMARY CO. / NAME OF STREAM / OWNER	LATITUDE / LONGITUDE / DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. / STATUS / AVE. O (CF)	DAM HT / MX STOR. / PWR. HD. (FT) (FT)	EXIST.CAP. / NO. / TOT CAP. (KW) (KW) (KW)	EXIST.ENRG / INC.ENERGY / TOT.E EN (MWH) (MWH) (MWH)	ANUL. COST / ENERGY COST (1000 $) $/MWH	ECONOMIC RANK (SEQUENCE RANK)	NONECONOMIC CRC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK)
NYJNCB0126	WATERLOO	42 54.0	H	33.0	1920	4,2,	26 561	1064	
2	SENECA SENECA RIVER	76 51.7	OP	107456	257	7957	7,2171	1064	1064
	NY STATE ELEC + GAS CORP	708	790,0	17.0	2177	8077			1064
NYJNCB0153	BLAKE FALLS	44 30.3	H	80.0	14400	60579	110,69	1121	
2	ST LAWRENCE RAQUETTE RIVE	74 45.0	OP	3900	1816	8712	12,705	1121	1121
	NIAGARA MOHAWK POWERCOR	907	1600,0	68.0	16216	69291			1121
NYJNCB0156	BROWNS FALLS	44 12.8	H	65.0	15000	53030	48,957	1056	
2	ST LAWRENCE OSWEGATCHIE-E	75 2.2	OP	2215	1861	7752	6,3153	1056	1056
	NIAGARA MOHAWK POWERCOR	178	230,0	270,0	16861	60782			1056
NYCNCB0155	CARRY FALLS DEVELOPMENT	44 26.0	H	76.0	0	0	74[illegible], 7	1124	
2	ST LAWRENCE RAQUETTE RIVE	74 44.8	IS	114400	8029	56573	13,117	1124	1124
	NIAGARA MOHAWK POWERCOR	877	1500,0	75.0	8029	56573			1124
NYJNCB0149	COLTON	44 33.3	H	27.0	30000	191690	154,25	1013	
2	ST LAWRENCE RAQUETTE RIVE	74 56.3	OP	620	6464	57233	2,6952	1013	1013
	NIAGARA MOHAWK POWERCOR	981	1800,0	285,0	36464	248923			1013
NYHNCB0127	DEXTER ELEC CORP DAM	44 30.9	H	25.0	1200	9000	55,253	1136	
2	ST LAWRENCE GRASS RIVER	75 11.3	OP	47	470	3568	15,483	1136	1136
	DEXTER HYDRO ELEC CORP	335	610,0	75.0	1670	12568			1136
NYGNCB0159	EEL WEIR	44 38.2	H	27.0	2700	11607	96,862	1138	
2	ST LAWRENCE OSWEGATCHIE R	75 29.5	OP	136	1098	6129	15,803	1138	1138
	NIAGARA MOHAWK POWERCOR	1590	2200,0	13.0	3798	17736			1138
NYHNCB0172	EMERYVILLE	44 17.7	H	10.0	1320	8000	17,703	1028	
2	ST LAWRENCE OSWEGATCHIE	75 21.8	OP	470	219	4627	3,8254	1028	1028
	HAMPSHIRE PAPER CO INC	650	1000,0	32.0	1539	12627			1028
NYJNCB0151	FIVE FALLSDEVELOPME NT	44 31.7	H	55.0	22500	74562	64,576	1042	
2	ST LAWRENCE RAQUETTE RIVE	74 50.5	OP	657	2364	12930	4,9942	1042	1042
	NIAGARA MOHAWK POWERCOR	932	1700,0	103,0	24864	107492			1042

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NYINCB0157	FLAT ROCK	44 13.2	H	70.0	6000	17680	131.57	1442
2	ST LAWRENCE OSWEGATCHIE-E	75 4.3	OP	3388	2042	.2052	64.118	1442
	NIAGARA MOHAWK POWERCOR	262	340.0	58.0	8042	19732		1142
NYSNCB0168	FORT JACKSON	44 42.4	H	60.0	0	0	3141.2	2045
2	ST LAWRENCE E. BR. ST.REG	74 43.1	IS	0	23746	72178	43.521	2043
		302	390.0	240.0	23746	72178		2043
NYGNCB0173	FOWLER	44 18.1	H	24.0	900	6700	18.606	1089
2	ST LAWRENCE OSWEGATCHIE R	75 25.6	OP	0	174	2115	8.7966	1089
	DEXTER ELECTRIC CORP	660	1000.0	22.0	1074	8815		1089
NYHNCB0174	HAILESBORO	44 18.7	H	20.0	1490	9500	43. 33	1066
2	ST LAWRENCE OSWEGATCHIE R	75 26.5	OP	0	515	5834	7.3752	1066
	DEXTER HYDRO ELECTRIC	660	1000.0	30.0	2005	15334		1066
NYJNCB0148	HANNAWA	44 36.7	H	40.0	7200	49440	75.737	1049
2	ST LAWRENCE RAQUETTE RIVE	74 58.4	OP	690	1210	12954	5.8464	1049
	NIAGARA MOHAWK POWERCOR	993	1850.0	81.0	8410	62394		1049
NYGNCB0132	HEUVELTON DAM	44 36.9	H	16.5	1040	5891	65.200	1139
2	ST LAWRENCE OSWEGATCHIE R	75 24.3	OP	405	532	4098	15.909	1139
	NIAGARA MOHAWK POWERCOR	995	1600.0	15.5	1572	9989		1139
NYCNCB0161	JACKSON FALLS	44 30.1	H	35.0	0	0	207.28	1225
2	ST LAWRENCE GRASS RIVER	75 10.1	IS	103305	1319	7453	27.809	1225
		329	600.0	30.0	1319	7453		1225
NYSNCB0165	MOOSEHEAD RAPIDS	44 18.7	H	35.0	0	0	3033.1	2115
2	ST LAWRENCE RAQUETTE RIVE	74 41.9	IS	0	11998	59627	50.868	2059
		784	1300.0	85.0	11998	59627		2059
NYHNCB0176	NATURAL DAM	44 20.1	H	12.0	1200	6000	33.655	1051
2	ST LAWRENCE OSWEGATCHIE R	75 30.3	OP	0	315	5586	6. 247	1051
	GROVETON PAPERS CO	748	1200.0	20.0	1515	11586		1051

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. D (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC (SEQUENCE RANK)	ERC NONECONOMIC (SEQUENCE RANK)	ERC COMPOSITE (SEQUENCE RANK)
NYHNCB0136	NEWTON FALLS-LOWER	44 12.6	SH	0	680	3000	12.277	1070		
2	ST LAWRENCE OSWEGATCHIE R	74 59.9	OP	0	103	1606	7.6427		1070	
	NEWTON FALLS PAPER CO	170	486.0	24.0	783	4606				1070
NY5NCB0167	NICHOLVILLE	44 41.6	H	100.0	0	0	3352.4	2050		
2	ST LAWRENCE E. BR. ST.REG	74 38.7	IS	0	24807	72985	45.933		2048	
		280	360.0	260.0	24807	72985				2048
NYHNCB0145	NORFOLK	44 48.1	H	20.0	4500	28420	45.181	1044		
2	ST LAWRENCE RAQUETTE RIVE	74 59.5	OP	25	854	8536	5.2927		1044	
	NIAGARA MOHAWK POWERCOR	1066	1050.0	42.0	5354	36956				1044
NYHNCB0131	OSWEGATCHIE DAM	44 41.4	CH	12.0	0	0	400.80	1286		
2	ST LAWRENCE OSWEGATCHIE R	75 29.6	IS	160	1772	11257	35.604		1286	
	CITY OF OGDENSBURG	1580	2200.0	11.0	1772	11257				1286
NYGNCB0175	PLANT NO 7	44 18.5	H	16.0	0	0	278.10	1314		
2	ST LAWRENCE OSWEGATCHIE	75 26.1	IS	0	1239	7142	38.937		1314	
	INTERNATIONAL TALC CO IN	660	1000.0	15.0	1239	7142				1314
NYHNCB0146	RAYMONDVILLE	44 50.1	H	17.0	2000	12725	23. 51	1045		
2	ST LAWRENCE RAQUETTE RIVE	74 58.8	OP	264	239	4210	5.4753		1045	
	NIAGARA MOHAWK POWERCOR	1077	1060.0	22.0	2239	16935				1045
NYHNCB0158	SOUTH EDWARDS	44 15.9	H	47.0	2680	19570	43.263	1164		
2	ST LAWRENCE OSWEGATCHIE	75 11.4	OP	851	489	2097	20.630		1164	
	NIAGARA MOHAWK POWERCOR	277	600.0	85.0	3169	21667				1164
NYHNCB0147	SUGAR ISLAND	44 37.8	H	37.0	4800	32765	154.32	1100		
2	ST LAWRENCE RAQUETTE RIVE	74 58.4	OP	55	1703	15573	9.9093		1100	
	NIAGARA MOHAWK POWERCOR	994	1850.0	63.0	6503	48338				1100
NYGNCB0140	UNIONVILLE	44 42.8	H	17.0	1380	10900	22.466	1184		
2	ST LAWRENCE RAQUETTE RIVE	74 59.8	OP	400	188	958	23.428		1184	
	POTSDAM PAPER CO	1037	1950.0	16.0	1568	11858				1184

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. *NAME OF STREAM OWNER	LATITUDE LONGITUDE OR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG ANUL. COST INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)
NYINC80177	YALEVILLE	44 45.9	H	0	725	3582	44,548	1109
2	ST LAWRENCE RAQUETTE RIVE	75 0.0	OP	0	250	3811	11,686	1109
	NIAGARA MOHAWK POWERCOR	1040	1950.0	10.0	975	7393		1109
NYHNC80160	KEUKA HYDRO	42 29.6	H	7.0	1892	22000	0	1376
2	STEUBEN KEUKA LAKE	77 7.1	OP	545	0	0	0	1376
	NYS GAS ELECTRIC	45	86.0	379.6	1892	22000		1376
NYCNAP0031	NEVERSINK RESERVOIR DAM	41 49.5	SO	195.0	0	0	347.95	1293
2	SULLIVAN NEVERSINK	74 38.3	OP	140000	3311	9394	37. 37	1293
	CITY OF N Y	93	266.0	174.1	3311	9394		1293
NYPNC80182	REEBE LAKEDAM	42 27.0	H	26.0	0	0	166.27	1214
2	TOMPKINS FALL CREEK	76 28.8	IS	63	982	6324	26,289	1214
	CORNELL UNIVERSITY	120	180.0	143.0	982	6324		1214
NYANAN0145	ASHOKON DAM	41 54.0	S	252.0	0	0	1047.8	1151
2	ULSTER ESOPUS CREEK	74 11.9	OP	512500	19663	56620	18,506	1151
	NEW YORK CITY	257	-425.4	252.0	19663	56620		1151
NYCNAN0154	CANTINE	42 4.3		38.0	0	0	331.17	1294
2	ULSTER ESOPUS CREEK	74 56.9		0	3763	8934	37. 68	1294
		175	-407.0	38.0	3763	8934		1294
NYGNAN0149	OASHVILLE	41 47.9		40.0	4800	18000	344.82	1429
2	ULSTER WALLKILL	74 5.9	OP	50	5617	5564	61.973	1429
	CENTRAL HUDSON GAS +ELEC. CO	766	-1179.7	34.0	10417	23564		1429
NYDNAN0151	GARDINER	41 41.0	S	38.0	0	0	740.70	1241
2	ULSTER WALL KILL RIV	74 10.2	OP	0	11245	24669	30. 25	1241
		711	-1095.0	38.0	11245	24669		1241
NYANAN0147	MERRIMAM DAM	41 47.9	S	195.0	0	0	670.94	1228
2	ULSTER RONDOUT CREEK	74 25.5	OP	154000	7294	23357	28.725	1228
	CITY OF NEW YORK	95	-247.8	175.0	7294	23357		1228

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. -NAME OF STREAM OWNER	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PRDJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC ERC NONECONOMIC ERC COMPOSITE (SEQUENCE RANK) (SEQUENCE RANK) (SEQUENCE RANK)	
NYGNAN0148	STURGEON POOL	41 47.9	H	115.0	14400	52000	306.29	1142	
2	ULSTER WALLKILL	74 5.9	OP	2000	10179	18740	16.343	1142	
	CENTRAL HUDSON GAS AND ELECT	785	-1208.9	108.0	24579	70740			1142
NYHNAN0159	GLEN FALLS	43 18.9		48.0	9840	46000	775.71	1339	
2	WARREN HUDSON	73 41.9	OP	0	10216	18209	42.598	1339	
		2807	-4973.5	23.0	20056	64209			1339
NYCNAN0155	SCHROON RIVER PULP +PAPER DA	43 28.0	H	31.0	0	0	454. 9	1247	
2	WARREN SCHROON RIVER	73 48.0	OP	52	4599	14691	30.908	1247	
	WARRENSBURG BD + PAPER C	554	-1101.2	24.0	4599	14691			1247
NYINAN0156	SHERMAN ISLAND DAM	43 16.1	H	60.0	28800	150000	2767.2	2103	
2	WARREN HUDSDN RIVER	73 43.1	OP	9300	42447	28934	95.637	2100	
	NIAGARA MOHAWK POWERCO.	2806	-4971.7	60.0	71247	178934			2103
NYGNAN0158	SPIER FALLS	43 14.0	H	150.0	44400	214000	2016.6	1500	
2	WARREN HUDSON RIVER	73 45.3	OP	0	41307	25361	79.515	1500	
	NIAGARA MOHAWK POWERCORP.	2779	-4463.5	84.0	85707	239361			1500
NYCNAN0160	TROUT BROOK	43 45.0	S,R	85.0	0	0	342.44	1270	
2	WARREN TROUT BROOK	73 54.0	OP	0	2847	10198	33.577	1270	
		91	-203.8	83.0	2847	10198			1270
NYHNAN0197	CARVERS FALLS	43 32.3	H	35.0	1800	8300	278.73	1340	
2	WASHINGTON POULTNEY	73 18.4	OP	18	3148	6518	42.764	1340	
	CENTRAL VT. PUBLIC SERV. COR	186	-245.8	115.0	4948	14818			1340
NY4NAN0194	FENIMORE DAM	43 17.9		80.0	0	0	10227	1338	
2	WASHINGTON HUDSON	73 35.0		0	98808	240261	42.567	1338	
		2810	-4978.8	80.0	98808	240261			1338
NYGNAN0198	GREENWICH	43 8.0		15.0	750	4900	1189.9	1203	
2	WASHINGTON BATTENKILL	73 24.0		0	20357	46841	25.403	1203	
	STEVENS + THOMPSON PAPER CO.	443	-824.1	106.0	21107	51741			1203

SITE ID NUMBER ACTV. INV.	PROJECT NAME PRIMARY CO. OWNER	NAME OF STREAM	LATITUDE LONGITUDE DR.AREA (D M.M) (D M.M) (SQ.MI)	PROJ.PURP. STATUS AVE. Q (CFS)	DAM HT MX.STOR. PWR. HD. (FT) (AC FT) (FT)	EXIST.CAP. INC. CAP. TOT. CAP. (KW) (KW) (KW)	EXIST.ENRG INC.ENERGY TOT.ENERGY (MWH) (MWH) (MWH)	ANUL. COST ENERGY COST (1000 $) ($/MWH)	ERC ECONOMIC (SEQUENCE RANK)	ERC NONECONOMIC (SEQUENCE RANK)	ERC COMPOSITE (SEQUENCE RANK)
NYGNAN0196	MIDDLE FALLS		43 5.9		17.0	1040	5900	13.403	1023		
2	WASHINGTON	BATTEN KILL	73 31.5		0	222	3665	3.6568		1023	
	NIAGARA MOHAWK CORP.		436	-272.4	55.0	1262	9565				1023
NYANAN0164	NEW CROTONRESERVOIR DAM		41 12.0	S	174.0	0	0	1130.3	1224		
2	WESTCHESTER	CROTON	73 54.0	DP	72990	16837	40833	27.682		1224	
	NEW YORK CITY		375	-525.6	131.0	16837	40833				1224

NUMBER OF SITES SATISFYING CONSTRAINTS = 172 (NEW YORK)

COMMAND AND CONSTRAINTS END

NPCC STUDY AREA

SITE LOCATION MAPS

FOR

CONNECTICUT

MAINE

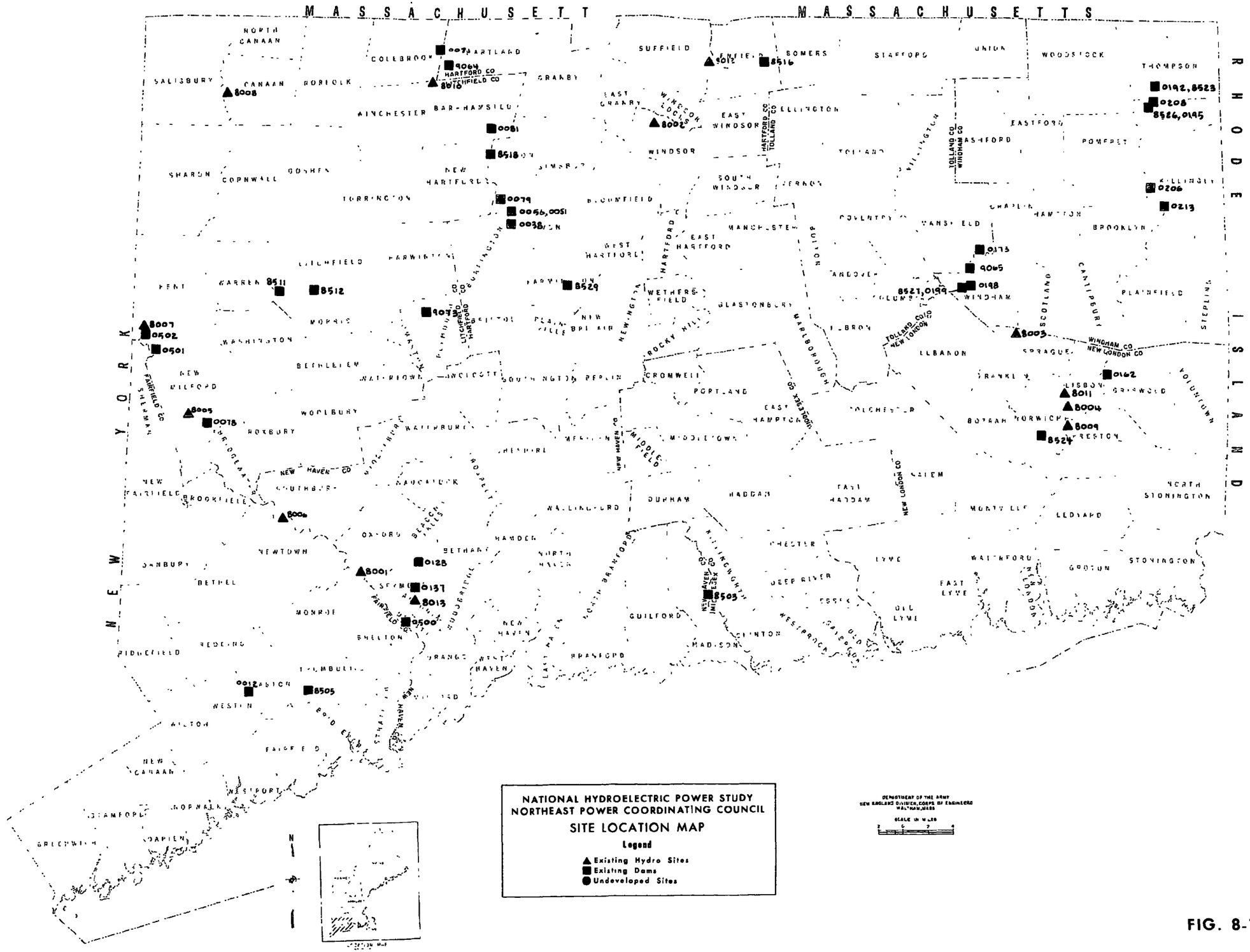
MASSACHUSETTS

NEW HAMPSHIRE

RHODE ISLAND

VERMONT

NEW YORK


MASSACHUSETT
MASSACHUSETTS
RHODE ISLAND
NEW YORK
NATIONAL HYDROELECTRIC POWER STUDY
NORTHEAST POWER COORDINATING COUNCIL
SITE LOCATION MAP
Legend
Existing Hydro Sites
Existing Dams
Undeveloped Sites
DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS
SCALE IN MILES
NORTH CANAAN
SALISBURY
CANAAN
NORFOLK
COLEBROOK
HARTLAND
HARTFORD CO
LITCHFIELD CO
GRANBY
SUFFIELD
ENFIELD
SOMERS
STAFFORD
UNION
WOODSTOCK
THOMPSON
WINCHESTER
BARKHAMSTED
EAST GRANBY
WINDSOR LOCKS
EAST WINDSOR
ELLINGTON
TOLLAND CO
WINDHAM CO
EASTFORD
ASHFORD
POMFRET
KILLINGLY
SHARON
CORNWALL
GOSHEN
NEW HARTFORD
WINDSOR
TOLLAND
WILLINGTON
SOUTH WINDSOR
VERNON
TORRINGTON
BLOOMFIELD
CHAPLIN
HAMPTON
BROOKLYN
MANCHESTER
EAST HARTFORD
COVENTRY
MANSFIELD
LITCHFIELD
HARWINTON
WEST HARTFORD
BOLTON
ANDOVER
KENT
WARREN
NEW BRITAIN
WETHERSFIELD
GLASTONBURY
COLUMBIA
WINDHAM
SCOTLAND
CANTERBURY
PLAINFIELD
STERLING
MORRIS
WASHINGTON
BRISTOL
PLAINVILLE
ROCKY HILL
MARLBOROUGH
HEBRON
TOLLAND CO
NEW LONDON CO
BETHLEHEM
WATERTOWN
WINCHESTER
SOUTHINGTON
BERLIN
CROMWELL
PORTLAND
ELLINGTON
SPRAGUE
WINDHAM CO
NEW LONDON CO
NEW MILFORD
FAIRFIELD CO
SHERMAN
WOODBURY
ROXBURY
WATERBURY
CHESHIRE
MIDDLETOWN
EAST HAMPTON
COLCHESTER
FRANKLIN
LISBON
GRISWOLD
VOLUNTOWN
BOZRAH
NORWICH
PRESTON
NEW HAVEN CO
NEW FAIRFIELD
BROOKFIELD
SOUTHBURY
NAUGATUCK
WALLINGFORD
DURHAM
HADDAM
EAST HADDAM
SALEM
MONTVILLE
LEDYARD
NORTH STONINGTON
DANBURY
NEWTOWN
OXFORD
BEACON FALLS
BETHANY
HAMDEN
NORTH HAVEN
CHESTER
LYME
WATERFORD
GROTON
STONINGTON
BETHEL
SEYMOUR
DEEP RIVER
ESSEX
EAST LYME
NEW LONDON
MONROE
SHELTON
NEW HAVEN
GUILFORD
OLD LYME
RIDGEFIELD
REDDING
ORANGE
WEST HAVEN
BRANFORD
MADISON
CLINTON
TRUMBULL
EASTON
WESTON
MILFORD
FAIRFIELD
NEW CANAAN
WESTPORT
STAMFORD
NORWALK
GREENWICH
DARIEN
LOCATION MAP
0007
9064
8010
8008
0081
8518
0079
0056,0051
0038
8511
8512
9033
8529
8007
0502
0501
8005
0078
8006
8001
0128
0137
8013
0500
0012
8505
8012
8516
8002
0192,8523
0208
8526,0195
0206
0213
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8003
0162
8011
8004
8009
8524
8503

FIG. 8-1

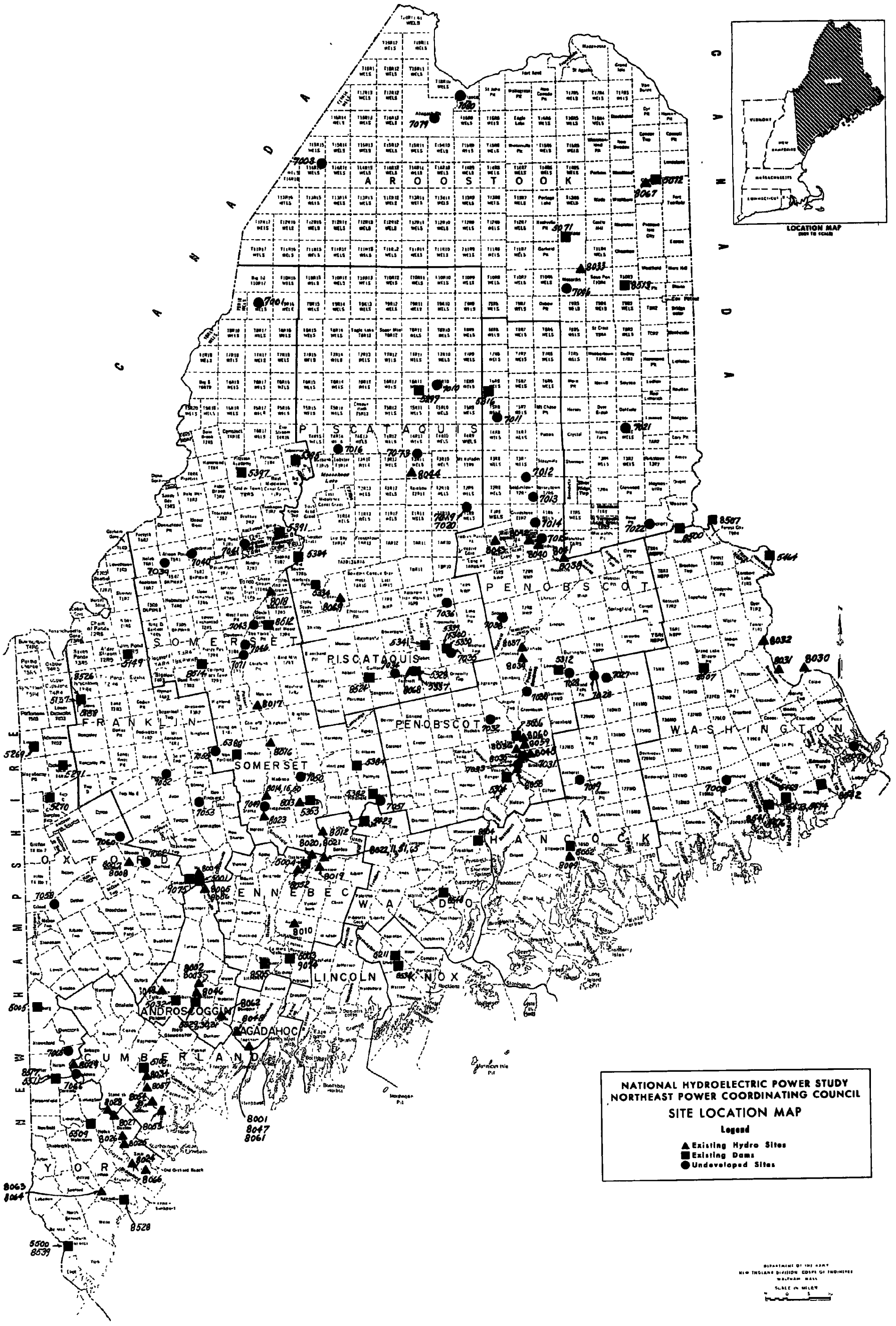

CANADA
CANADA
AROOSTOOK
PISCATAQUIS
PENOBSCOT
SOMERSET
PISCATAQUIS
PENOBSCOT
WASHINGTON
FRANKLIN
SOMERSET
HANCOCK
OXFORD
KENNEBEC
WALDO
LINCOLN
KNOX
ANDROSCOGGIN
SAGADAHOC
CUMBERLAND
YORK
NEW HAMPSHIRE
LOCATION MAP
NATIONAL HYDROELECTRIC POWER STUDY
NORTHEAST POWER COORDINATING COUNCIL
SITE LOCATION MAP
Legend
Existing Hydro Sites
Existing Dams
Undeveloped Sites

FIG. 8-2

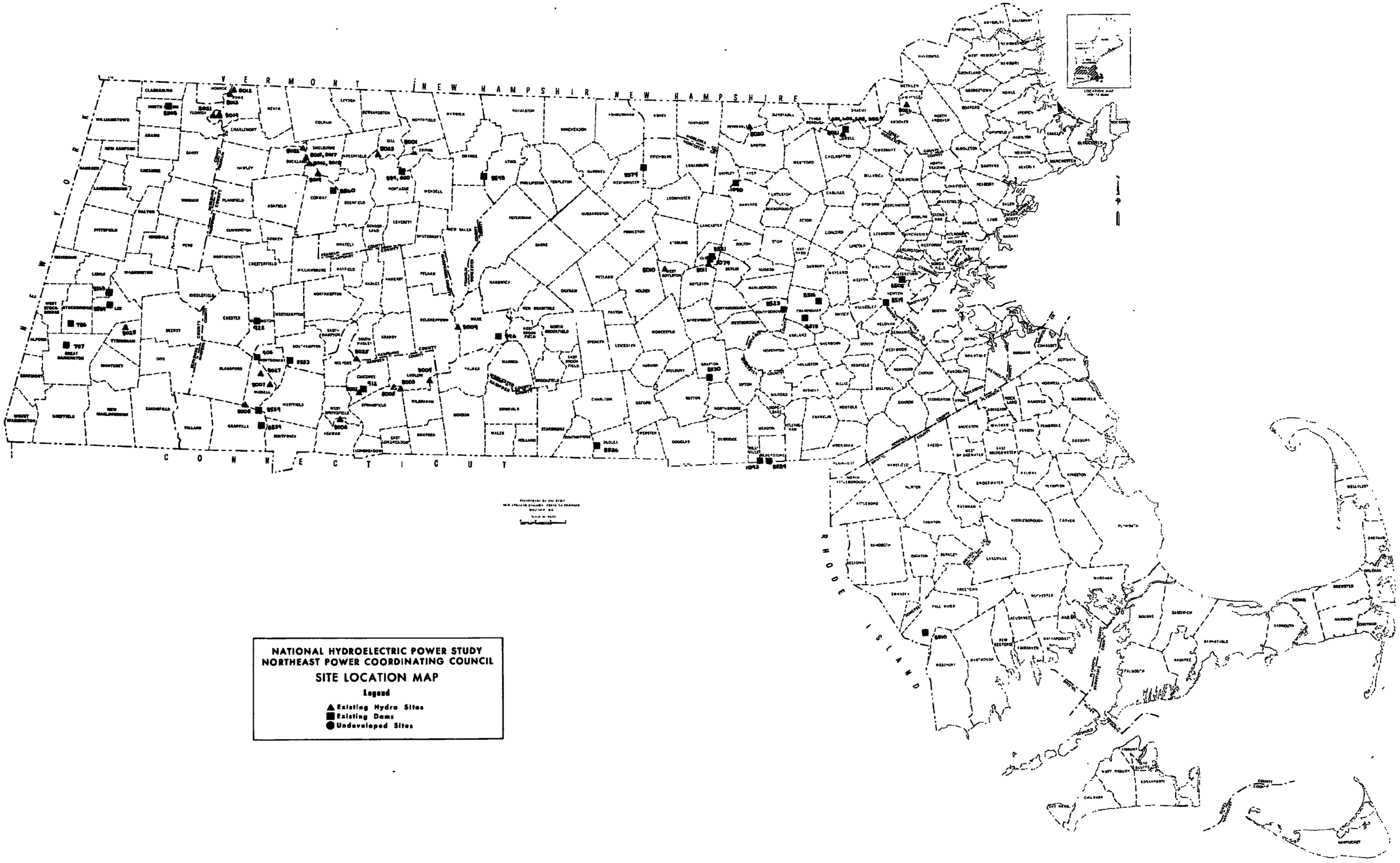

NATIONAL HYDROELECTRIC POWER STUDY
NORTHEAST POWER COORDINATING COUNCIL
SITE LOCATION MAP
Legend
Existing Hydro Sites
Existing Dams
Undeveloped Sites
VERMONT
NEW HAMPSHIRE
NEW YORK
CONNECTICUT
RHODE ISLAND

FIG. 8-3

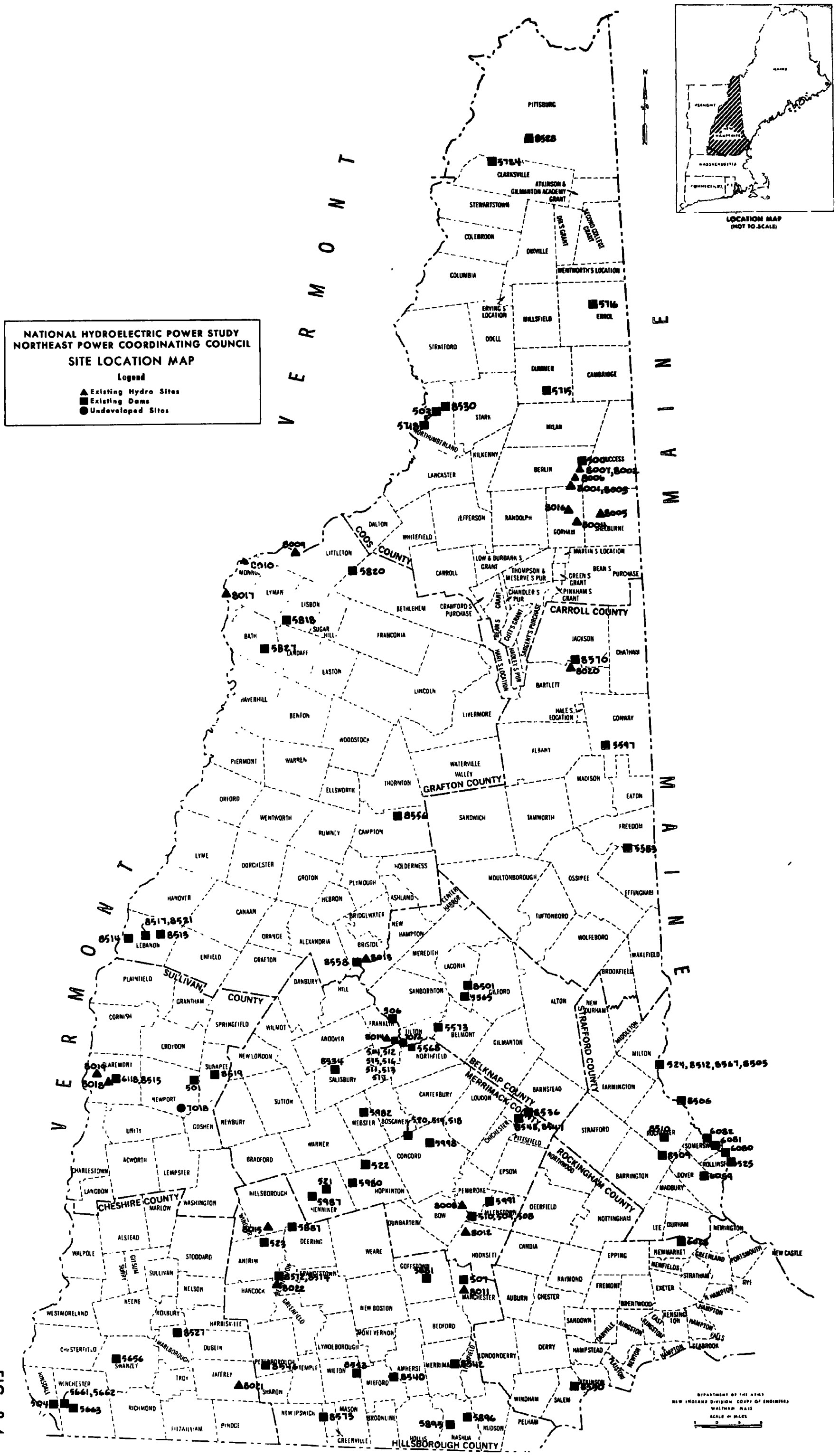

NATIONAL HYDROELECTRIC POWER STUDY
NORTHEAST POWER COORDINATING COUNCIL
SITE LOCATION MAP
Legend
Existing Hydro Sites
Existing Dams
Undeveloped Sites
VERMONT
MAINE
LOCATION MAP
(NOT TO SCALE)
COOS COUNTY
CARROLL COUNTY
GRAFTON COUNTY
SULLIVAN COUNTY
CHESHIRE COUNTY
HILLSBOROUGH COUNTY
BELKNAP COUNTY
MERRIMACK COUNTY
STRAFFORD COUNTY
ROCKINGHAM COUNTY
PITTSBURG
CLARKSVILLE
STEWARTSTOWN
COLEBROOK
COLUMBIA
DIXVILLE
WENTWORTH'S LOCATION
ERROL
STRATFORD
ODELL
DUMMER
CAMBRIDGE
STARK
MILAN
NORTHUMBERLAND
KILKENNY
LANCASTER
BERLIN
JEFFERSON
RANDOLPH
GORHAM
SHELBURNE
DALTON
WHITEFIELD
LITTLETON
CARROLL
BETHLEHEM
CRAWFORD'S PURCHASE
FRANCONIA
LYMAN
LISBON
BATH
LANDAFF
EASTON
HAVERHILL
BENTON
LINCOLN
LIVERMORE
JACKSON
CHATHAM
BARTLETT
CONWAY
ALBANY
MADISON
EATON
FREEDOM
WATERVILLE VALLEY
THORNTON
ELLSWORTH
ORFORD
WENTWORTH
RUMNEY
CAMPTON
SANDWICH
TAMWORTH
PIERMONT
WARREN
WOODSTOCK
LYME
DORCHESTER
GROTON
PLYMOUTH
HOLDERNESS
MOULTONBOROUGH
OSSIPEE
EFFINGHAM
HANOVER
CANAAN
ORANGE
ALEXANDRIA
BRISTOL
HEBRON
ASHLAND
BRIDGEWATER
NEW HAMPTON
CENTER HARBOR
TUFTONBORO
WOLFEBORO
WAKEFIELD
ENFIELD
GRAFTON
DANBURY
HILL
MEREDITH
LACONIA
BROOKFIELD
PLAINFIELD
GRANTHAM
SANBORNTON
GILFORD
ALTON
NEW DURHAM
MIDDLETON
MILTON
CORNISH
SPRINGFIELD
WILMOT
ANDOVER
FRANKLIN
TILTON
BELMONT
GILMANTON
CROYDON
NEW LONDON
NORTHFIELD
CLAREMONT
SUNAPEE
SALISBURY
FARMINGTON
NEWPORT
SUTTON
CANTERBURY
LOUDON
BARNSTEAD
UNITY
GOSHEN
NEWBURY
WEBSTER
BOSCAWEN
STRAFFORD
ROCHESTER
SOMERSWORTH
ROLLINSFORD
DOVER
ACWORTH
WARNER
BRADFORD
CONCORD
PITTSFIELD
NORTHWOOD
CHARLESTOWN
LEMPSTER
EPSOM
BARRINGTON
MADBURY
LANGDON
HOPKINTON
PEMBROKE
WASHINGTON
MARLOW
HILLSBOROUGH
HENNIKER
BOW
DEERFIELD
NOTTINGHAM
LEE
DURHAM
NEWINGTON
ALSTEAD
DUNBARTON
DEERING
WEARE
CANDIA
HOOKSETT
EPPING
NEWMARKET
NEW CASTLE
WALPOLE
STODDARD
ANTRIM
GOFFSTOWN
NEWFIELDS
STRATHAM
RYE
SULLIVAN
NELSON
HANCOCK
FRANCESTOWN
MANCHESTER
AUBURN
CHESTER
RAYMOND
FREMONT
EXETER
KEENE
NEW BOSTON
BRENTWOOD
WESTMORELAND
ROXBURY
HARRISVILLE
BEDFORD
SANDOWN
KENSINGTON
HAMPTON
HAMPTON FALLS
SEABROOK
CHESTERFIELD
DUBLIN
MONT VERNON
LYNDEBOROUGH
DERRY
HAMPSTEAD
LONDONDERRY
SWANZEY
TROY
JAFFREY
PETERBOROUGH
TEMPLE
WILTON
AMHERST
MERRIMACK
WINCHESTER
SHARON
MILFORD
ATKINSON
WINDHAM
SALEM
RICHMOND
NEW IPSWICH
MASON
BROOKLINE
HOLLIS
NASHUA
HUDSON
PELHAM
FITZWILLIAM
PINDGE
GREENVILLE
DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION CORPS OF ENGINEERS
WALTHAM MASS
SCALE OF MILES

FIG. 8-4

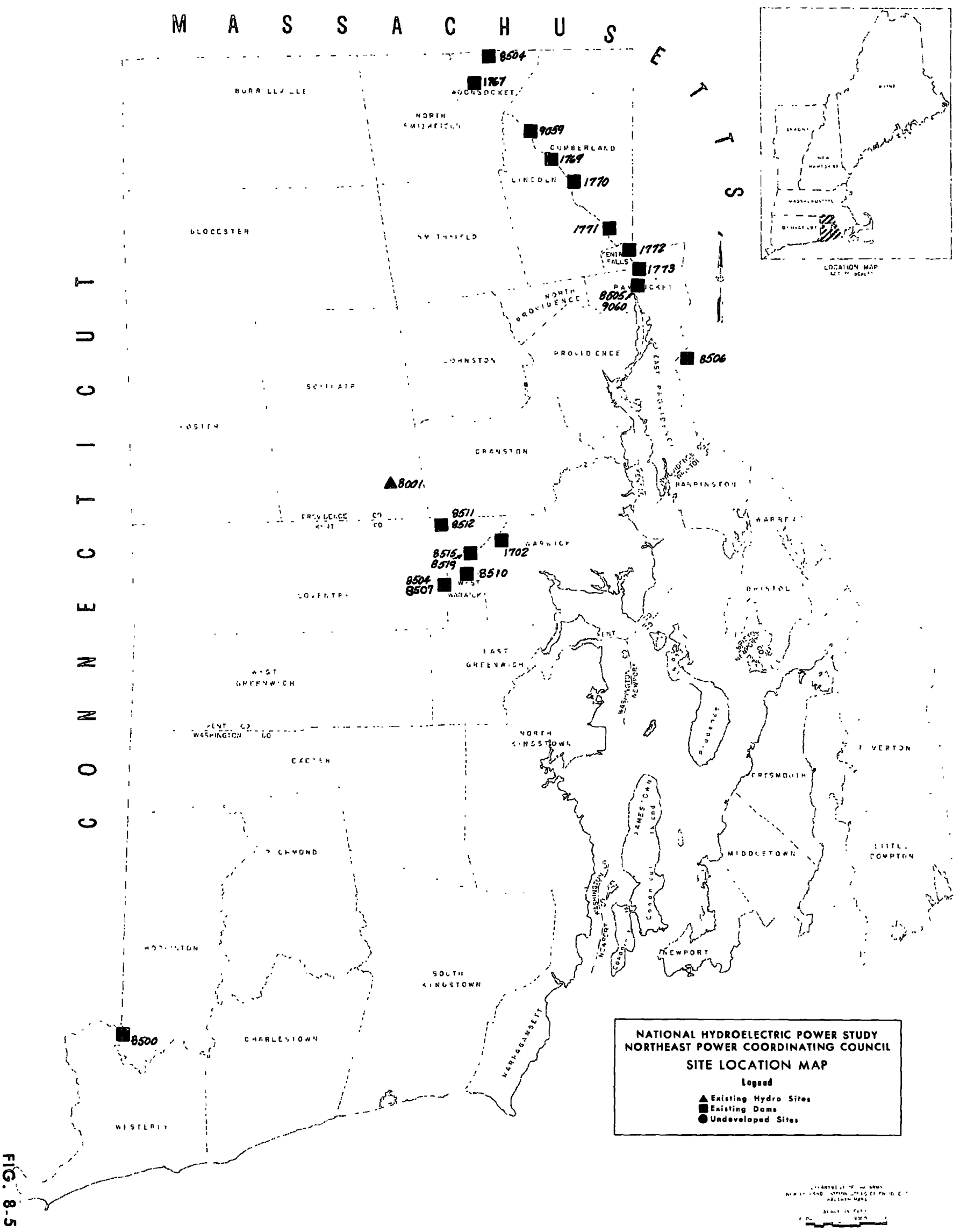

MASSACHUSETTS
CONNECTICUT
8504
1767
BURRILLVILLE
NORTH SMITHFIELD
9059
CUMBERLAND
1769
LINCOLN
1770
GLOCESTER
SMITHFIELD
1771
1772
1773
NORTH PROVIDENCE
8505
9060
PROVIDENCE
JOHNSTON
8506
SCITUATE
CRANSTON
8001
8511
8512
1702
WARWICK
8515
8519
8510
8504
8507
COVENTRY
WEST GREENWICH
EAST GREENWICH
NORTH KINGSTOWN
EXETER
CHARLESTOWN
SOUTH KINGSTOWN
NARRAGANSETT
8500
WESTERLY
BRISTOL
TIVERTON
PORTSMOUTH
MIDDLETOWN
LITTLE COMPTON
NEWPORT
JAMESTOWN
LOCATION MAP
NATIONAL HYDROELECTRIC POWER STUDY
NORTHEAST POWER COORDINATING COUNCIL
SITE LOCATION MAP
Legend
Existing Hydro Sites
Existing Dams
Undeveloped Sites

FIG. 8-5

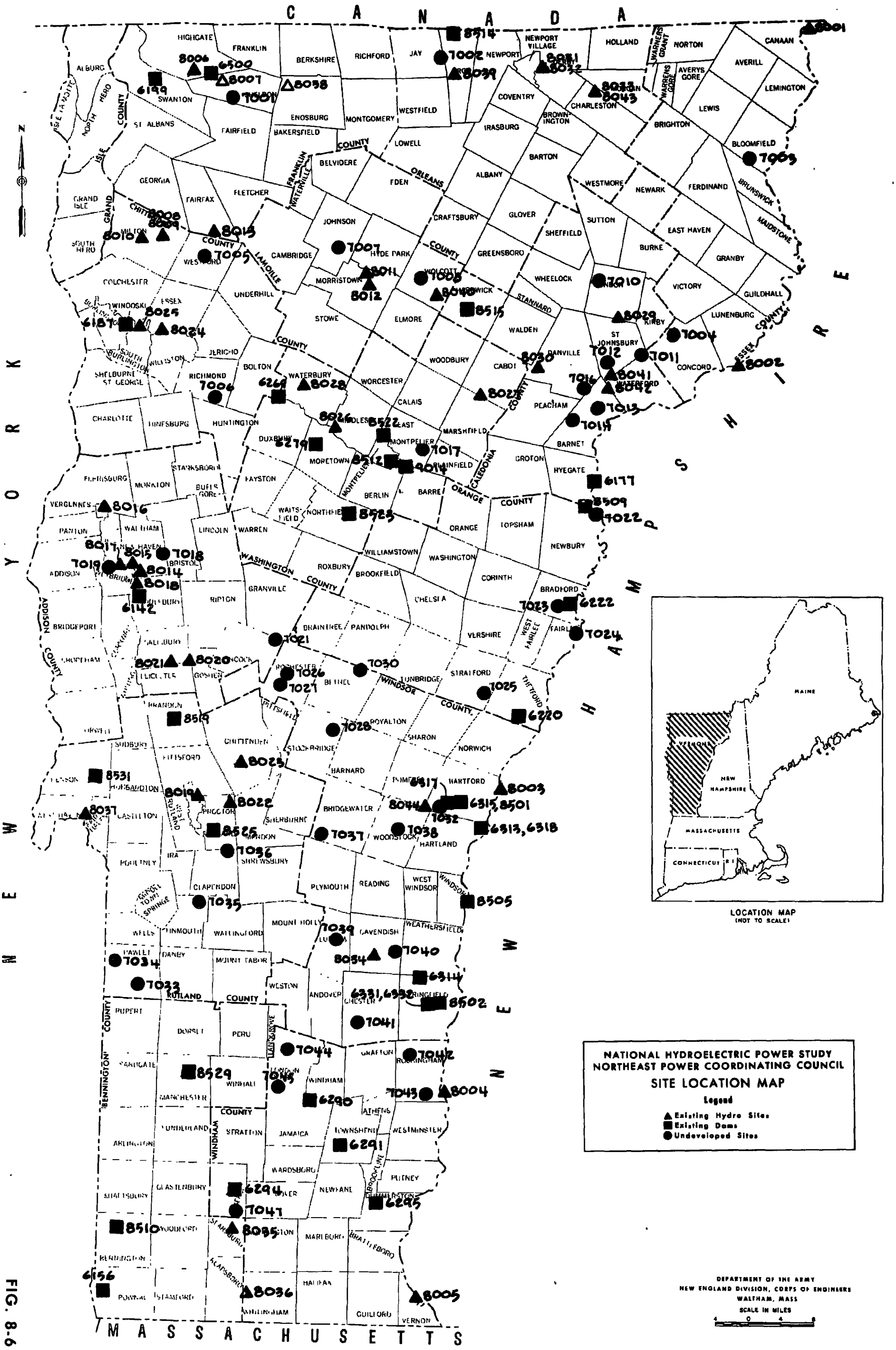
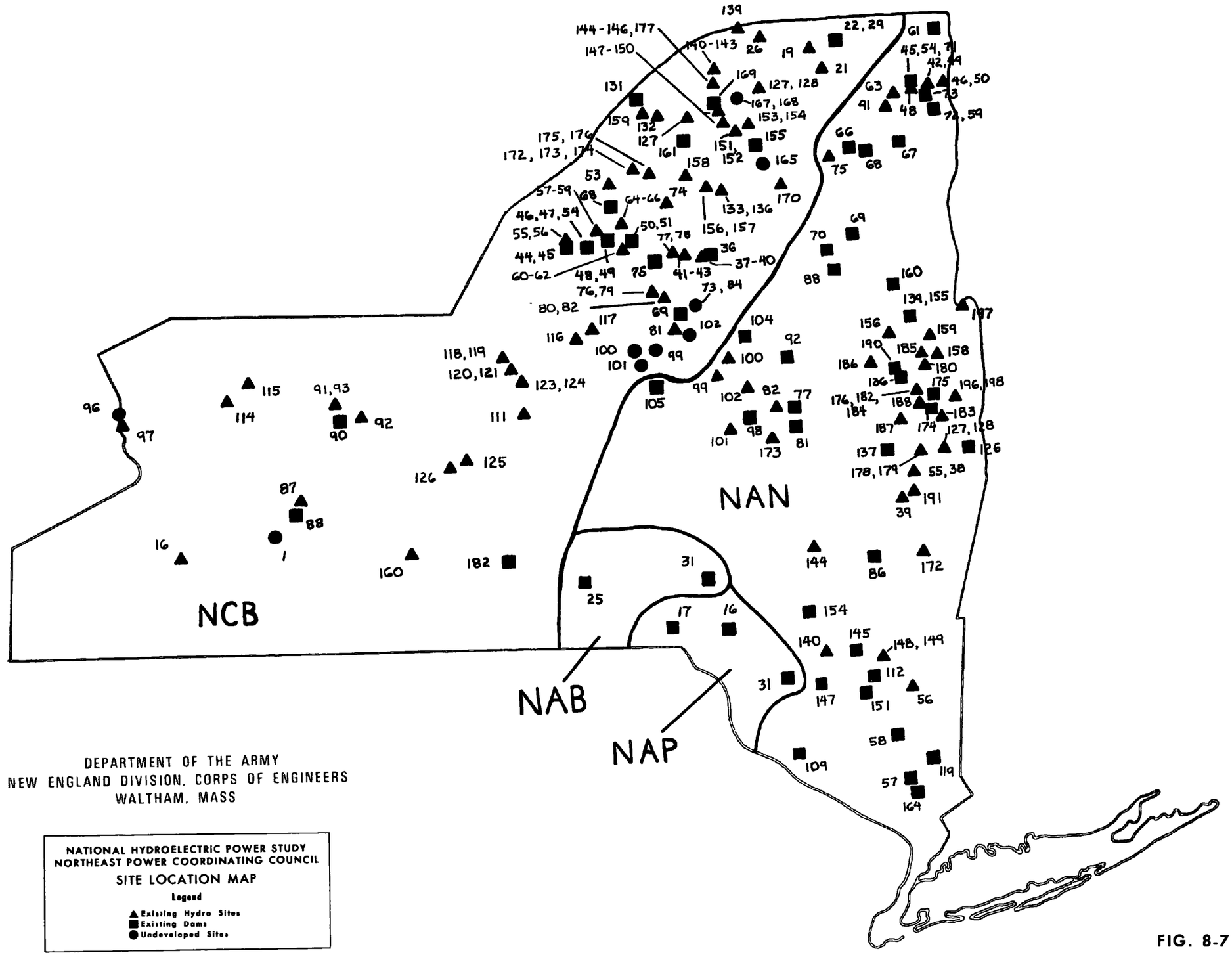

CANADA
NEW YORK
NEW HAMPSHIRE
MAINE
MASSACHUSETTS
LOCATION MAP
(NOT TO SCALE)
NATIONAL HYDROELECTRIC POWER STUDY
NORTHEAST POWER COORDINATING COUNCIL
SITE LOCATION MAP
Legend
Existing Hydro Sites
Existing Dams
Undeveloped Sites
DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS
SCALE IN MILES

FIG. 8-6



DEPARTMENT OF THE ARMY
NEW ENGLAND DIVISION, CORPS OF ENGINEERS
WALTHAM, MASS

NATIONAL HYDROELECTRIC POWER STUDY
NORTHEAST POWER COORDINATING COUNCIL
SITE LOCATION MAP

Legend

▲ Existing Hydro Sites
■ Existing Dams
● Undeveloped Sites

FIG. 8-7

CHAPTER 9

SUMMARY

Hydropower, in this reports NPCC study area (New England and New York, only), accounts for 16.6% (conventional and pumped storage) of the total net electrical energy generated by member utilities.[1] In New England, hydropower accounts for 7% of the total net electrical energy generated in New England while in New York the corresponding number is 23.1%. In terms of capacity and energy, this report indicates that hydropower currently represents 6,721,463 KW of capacity and 28,440,563 MWH of energy in the NPCC study area. In New England, these figures are 3,034,343 KW and 7,212,718 MWH, respectively. In New York, the corresponding figures are 3,687,120 KW and 21,227,845 MWH.

As shown by the results of this study, an additional 4,825,639 KW of capacity and 16,703,204 MW of energy could be harnessed by the development of new hydropower at existing dams and undeveloped sites, and the expansion of existing hydropower dams, within the NPCC study area. In New England 2,827,520 KW of capacity and 7,581,712 MWH of energy could be harnessed. In New York, 1,998,119 KW of capacity and 9,121,492 MWH of energy could be harnessed.

If all this additional hydropower was to be developed and put on line immediately, a highly optimistic approach, hydropower in the NPCC study area could contribute 27.1% of the total net electrical energy generated by member utilities -- an increase of 10.5%. In New England the increase would be 7.7% while in New York it would be 11.8%.

It is important to realize this analysis is highly idealistic. Hydropower development still faces many obstacles in the NPCC study area. As identified by this report, some of these major obstacles are the lack of Federal construction financing available, the U.S. Fish and Wildlife Service Minimum Stream Flow Policy and anadromous fish restoration.

In conclusion, hydropower in the NPCC study area represents an attractive renewable source of energy that could help the New England-New York region reduce its dependence on energy that is controlled by foreign interests. However, it should be noted that hydropower represents only a small portion of the energy picture in this area and as such is not the answer, but one of many answers.

---

[1] 1979 Summary of Projected Peak Load, Generating Capability, and Fossil Fuel Requirements for the Regional Reliability Councils of NERC

CHAPTER 10

SITE SPECIFIC COMMENTS

Site specific comments received on or before 24 October 1980 have been included in this section of the report. These comments were a direct result of the transmittal of this report in its draft form on 1 October 1980. The report was entitled "National Hydroelectric Power Study - Northeast Power Coordinating Council."

New England Power Service

New England Power Service Company
20 Turnpike Road
Westborough, Massachusetts 01581
Tel (617) 366-9011

1 October 1980

Division Engineer
UNITED STATES ARMY CORPS OF ENGINEERS
424 Trapelo Road
Waltham, Massachusetts 02254

Attention: NEDPL-HSB

Dear Sir:

The recently published inventory of potential hydro power sites in the northeast region developed by the Corps as part of the National Hydroelectric Power Study identifies ten of New England Power Company's presently operating hydro facilities, eight generating stations at which it is indicated capacity might be expanded, and two storage reservoirs where generation might be added.

Complying with the opportunity to submit statements for the record, New England Power comments as follows:

- Three of the generating stations listed contain large storage impoundments enabling full utilization of the river potential through proper scheduling and economic dispatching of the runoff at each of these sites. The historical record indicates that only minimal spill has occurred. Therefore, additional capacity is neither justified nor practical.

  These locations are:

  NHGNED 8009 - Fifteen Mile (Moore) - Connecticut River
  NHGNED 8010 - Comerford - Connecticut River
  VTGNED 8036 - Harriman - Connecticut River

- As a requirement of the granting of long term licenses by the FERC, studies were recently completed relative to the feasibility of providing additional capacity at three other generating stations listed in the inventory.

  These locations are:

  VTGNED 8003 - Wilder - Connecticut River
  VTGNED 8004 - Bellows Falls - Connecticut River
  VTGNED 8005 - Vernon - Connecticut River

- Our studies indicate generally that additional capacity at these facilities when evaluated by conventional utility financing is not economically feasible in comparison with the energy cost of current replacement generation.

The following tabulation provides the appropriate information from the most economical of the schemes evaluated:

Site	Incremental Capacity kW	Incremental Energy mWh	Energy Cost Mills/kWh
Wilder	5,000	7,285	319
Bellows Falls	45,000	46,420	172
Vernon	13,000	43,000	82

- Increasing the capacity at the remaining two generating stations mentioned is neither justified due to the low capacity factor at Sherman Station nor practical due to restrictive civil construction cost requirements to enlarge the waterway (3.5 mile long, 8' diameter wood stave pipe line) at our Searsburg Station.

  These stations are further identified as follows:

  MAGNED 8012 - Sherman - Deerfield River
  VTGNED 8035 - Searsburg - Deerfield River

- Generation could be developed at the two storage reservoirs mentioned since none now exists at these sites. As your analysis indicates these would be of limited capacity because of the relatively small drainage areas involved. Due to this fact and the remoteness of the sites, no studies have been made of this minimal potential.

  These locations are:

  VTCNED - Somerset - Deerfield River
  NHMNED - New England (1st Connecticut Lake) - Connecticut River

It is evident that the conclusions reached by the Corps' study in the evaluation of potential hydro power at eight of our operating plants is not confirmed by New England Power's in-house studies. Although it is generally understood that a study of this magnitude which encompasses a large number of sites cannot be site specific, the publication of the report if not properly qualified, can indicate more hydro potential than is actually practicable. We therefore are furnishing this data for incorporation in your report. If this is not possible, we would appreciate receiving your comments and having an opportunity to discuss these matters further with you.

Very truly yours,
NEW ENGLAND POWER ~~SERVICE~~ COMPANY

Louis D. Pierce
Chief Civil Engineer

POWER AUTHORITY OF THE STATE OF NEW YORK
10 COLUMBUS CIRCLE NEW YORK, N. Y. 10019
(212) 397-6200

TRUSTEES
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ROBERT I. MILLONZI
FREDERICK R. CLARK

GEORGE T. BERRY
PRESIDENT & CHIEF OPERATING OFFICER
JOHN W. BOSTON
EXECUTIVE VICE PRESIDENT & DIRECTOR OF POWER OPERATIONS
JOSEPH R. SCHMIEDER
EXECUTIVE VICE PRESIDENT & CHIEF ENGINEER
LEROY W. SINCLAIR
SENIOR VICE PRESIDENT & CHIEF FINANCIAL OFFICER
THOMAS R. FREY
SENIOR VICE PRESIDENT & GENERAL COUNSEL

October 21, 1980

Deaprtment of the Army
New England Division, Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

Attention: NEDPL-H

Subject: Comments on the September 4, 1980 Conference and Regional Public Meeting on the National Hydroelectric Power Study

Gentlemen:

The Power Authority of the State of New York has reviewed the Northeast Power Coordinating Council Regional Report, Volume XV of the National Hydroelectric Power Study. In your letter of September 24, 1980 you requested that written statements regarding the study should be submitted by October 24, 1980 for inclusion with the record of the public meeting. We are forwarding to you our comments as stated herein so that they may be included in the record of the meeting.

The Power Authority of the State of New York is greatly concerned with the development of hydroelectric power within the State because we recognize the great value of a pollution-free source of energy which can reduce our dependence on imported oil and are working toward that purpose. As a result, we are familiar with some of the proposed developments which appear in your computer lists. We believe these lists portray such grossly overoptimistic prospects for hydroelectric energy development in New York that a general loss of credibility may result. Patent errors appear to have been made by your computer in at least two particular calculations. In the paragraphs which follow we will give you specific observations on the shortcomings of your computer printouts. We are particularly concerned because a news article in The New York Times on September 4, 1980, summarizing your conclusions indicated that 3,000 megawatts of new capacity could be developed. Our quick review shows that at least 1,700 megawatts of this new

capacity is not physically realizable. The article erroneously suggests that massive hydroelectric resources could be economically developed. Specific comments are as follows:

1. On page 16 of the attachment to the Public Information Brochure there is a listing for the Blenheim project which shows an incremental capacity of 294 megawatts on a drainage of 314 square miles with a gross head of 857 feet. The listing shows that this plant would produce 286,000 megawatt-hours of energy each year. We know of no such site. The only possibility for developing power of this magnitude in that area would be from the addition of a pumped storage plant which is not a net producer of energy.

2. On page 18 of the Public Information Brochure there is a listing for expansion of the Niagara Project which shows that an additional 194 megawatts could be developed; that to do so would reduce the energy output by 1,158,000 megawatt-hours and that the cost of the energy would be 1.87 mills. The backup data for this listing is shown on the draft report "National Hydroelectric Power Study" at page 8-146. In view of the fact that this listing shows a storage capacity of 60,000 acre feet, we assume that the plan includes expansion of the Niagara Project utilizing the existing pumped storage project. It would, of course, be physically possible at great expense to add more units to the existing pump-generating plant. Such expansion would result, as the report indicates, in a decrease in the total energy available. The cost of the energy in mills per kWh shown in the main report has obviously been developed by the expedient of dividing the annual project's charges by the energy production. Had the energy production been exactly zero, this would have lead to an infinite cost for the energy. The person assembling this report simply ignored the fact that such project would be consuming rather than producing energy, dropping the minus sign before executing the division, and got an answer that is completely illogical but resulted in an energy cost being quoted that is the lowest of all those considered for New York.

3. On page 19 of the Brochure there is a listing for development of the Lower Niagara River. The data for this listing also appears on page 8-76 of the report. However, between page 8-76 and page 8-31, the source of the Brochure figure, some additional calculations were apparently made which resulted in increasing the amount of capacity and energy by a factor of three. The amount of capacity and energy shown in the Brochure would be approximately correct if the entire Niagara River flow were to pass through a power plant on the Lower Niagara River having a gross head of 80 feet. Of course, under present

operating conditions, with a large portion of the total river flow diverted to the Moses and Beck plants, the flow in the Lower Niagara River is normally either 50,000 or 100,000 cfs, not the 204,000 average river flow. Accordingly, the figures given to the press are wrong by approximately a factor of three. Both sets of figures completely disregard the international boundary and treaty arrangements between the United States and Canada regarding sharing of the Niagara River water for power purposes.

These three errors account for more than half of the potential capacity shown for New York. We have not examined the smaller sites tabulated, however, these too are suspect. For example, the Brochure on page 16 identifies a project on Esopus Creek that would have an incremental capacity of 19,663 kilowatts and utilize a head of 252 feet. This apparently would be accomplished by using the Ashokan Reservoir and the steep gradient immediately downstream. Ashokan is a water supply reservoir with almost all of the water being directed through a tunnel in which the Power Authority is now installing a power plant. However, the flow and head available are very substantially less than shown in your report. Flow in the stream is limited to periods of flood and would not be appropriate for power development.

We request that you include our comments in the published record of the meeting and that you assign experienced senior hydroelectric engineers to review all of the computer printouts so that misconceptions similar to those identified above can be corrected.

Very truly yours,

J. R. Schmieder
Executive Vice President
and Chief Engineer

JRS/am

NORTHEAST UTILITIES
THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

P O BOX 270
HARTFORD, CONNECTICUT 06101
(203) 666-6911

October 24, 1980

Department of the Army
New England Division
Corps of Engineers
424 Trapelo Road
Waltham, Massachusetts 02154

Attention: NEDPL-H Memorandum

Gentlemen:

COMMENTS ON DRAFT REPORT ON
NATIONAL HYDROELECTRIC POWER STUDY
NORTHEAST POWER COORDINATING COUNCIL

Northeast Utilities provides retail and wholesale electric service to more than 1,000,000 customers in Connecticut and Western Massachusetts through its operating subsidiaries, The Connecticut Light and Power Company, The Hartford Electric Light Company, Western Massachusetts Electric Company, and Holyoke Water Power Company.

We are very interested in your draft regional report on hydroelectric potential. Currently, we own and operate approximately 1,250 MW of hydroelectric capacity and are studying and/or planning a number of additional sites. Your excellent survey of hydropower potential for the Northeast Region will assist our company to reach its goal of developing new hydroelectric capacity and reducing our dependence on foreign oil.

We have reviewed the data on potential sites located in Connecticut and Massachusetts contained in Tables 8-7, 8-8, 8-9, and 8-10 of your report. Several of these sites are owned by our company and some of the data, as shown, is not accurate. We offer the following accurate data on these sites that we own so that the appropriate revisions can be made to your report.

CONNECTICUT SITES

Site ID CTGNED8007, Bulls Bridge
CTMNED0502, Spooner
CTYNED0501, CT No Name 13

These three dams are project works of our Bulls Bridge Development, FERC Project No. 2576. Bulls Bridge and Spooner Dams impound the project reservoir.

CT No Name 13 is not a power dam but a forebay dike at the end of the project's two-mile long power canal. The project powerhouse is just below the forebay dike and the project gross head is 110 feet.

The attached enclosure 1 is a copy of the USGS map of this project and the location of these dams is shown.

The current capacity of the Bulls Bridge Project is 8,400 KW. If incremental capacity were to be developed at the Bulls Bridge Project, it would be done on a project basis. Individual power development at the Spooner or Bulls Bridge Dam would not be economically feasible.

For potential incremental capacity calculations, only one site should be identified, CTGNED8007 (Bulls Bridge). Spooner Dam and CTYNED0501 (CT No Name) should be removed from the inventory.

Site ID CTGNED8003, CT No Name

This site should be identified as the Scotland Project (FERC Project No. 2662).

Site ID CTGNED8009, CT No Name

This site should be identified as the Tunnel Project.

Site ID CTLNED8005, Candlewood

This site should be identified as the Rocky River Project (FERC Project No. 2676), a pumped storage project. Its gross head is 232 feet rather than 200 feet.

Site ID CTINED8006, Shepaug Dam

The gross head for this site is 97 feet and not 139 feet.

Site ID CTGNED8008, Great Falls "Falls Village"

	Data In Report	Correct Data	
Dam Height	30 feet	15 feet	
Existing Capacity	9,000 KW	10,200 KW	
Gross Head	30 feet	90 feet	(powerhouse located below the end of the power canal)

Site ID CTONED0500, Lake Housatonic

The Derby Dam, which impounds Lake Housatonic, is owned by the Shelton Canal Company, a wholly owned subsidiary of The Connecticut Light and Power Company, not the Hull Dye and Print Works. It is presently a diversion dam and should be classified as "B," not "O." It impounds a part of the Housatonic River with the impoundment known as Lake Housatonic. The Derby Project provides water for industrial process and cooling water through canals on both sides of the river. The dam has a gross head of 26 feet, not the 35 feet indicated in the report.

The Derby Project is currently being actively evaluated for hydroelectric development under a preliminary permit, FERC Project No. 2996. The project would be a basic run-of-river hydroelectric with a possible installed capacity of 7,500 KW.

Site ID CTGNED8010, Robertsville Dam

The gross head available at this site is 55 feet, not 15 feet. The existing capacity is 600 KW, not 500 KW.

Site ID CTMNED0078, CT No Name 14

This dam can be identified as the Robertson Bleachery Dam and is located at river mile 42.3 on the Housatonic River in New Milford, Connecticut. It lies between the Shepaug and Rocky River Projects, both part of FERC Project No. 2576. The Shepaug Project dam is at river mile 30.0 and the Rocky River powerhouse is located at river mile 44.1. The Shepaug Project impoundment, Lake Lillinonah has a normal water surface elevation of 198 feet MSL which is also the normal tailwater elevation of the Rocky River Project. The crest elevation of the Robertson Bleachery Dam is slightly less than 198 feet MSL and thus inundated by water making it unusable for power generation. The company has adequate flowage rights to allow flooding of this dam.

MASSACHUSETTS

Site ID MAGNED8002, Mungerville

This is our Dwight Project and the project name should be revised.

Site ID MALNED8001, Northfield

This is our Northfield Mountain Pumped Storage Site. The actual gross head is about 810 feet. The figure shown, 1,005 feet, is the elevation of the upper reservoir dam.

Site ID MAGNED8004, Ludlow Manufacturing Association

This is our Red Bridge Project and the project name should be revised.

Site ID MAGNED8003, Western Massachusetts Electric

This is our Putts Bridge Project and the project name should be revised.

Site ID MAGNED8025, Holyoke Dam Canal System

Your report indicates an existing capacity at Holyoke Dam of 1.591 MW. This figure is not correct.

At Holyoke Dam, we have installed an existing 16.8 MW unit and a second 15 MW unit has been proposed for installation. Additionally, the canal system has 19.1 MW of existing installed capacity of which 12.4 MW is owned by our company.

Site ID MAGNED8015, Deerfield
MAGNED8017, Deerfield
MAGNED8016, Gardners Falls
MAGNED8018, Gardners Falls

Sites MAGNED8015 and MAGNED8017 are part of one project owned by the New England Power Company. Evidently, MAGNED8017 is the project's forebay dike. Similarly, sites MAGNED8016 and MAGNED8018 consist of a single project, Gardners Falls (FERC No. 2334) owned by our company and should be combined into one site for any potential capacity study. The attached enclosure 2 shows the relative location of these sites.

Additionally, we have discovered the following minor errors in the text of the report.

1. Page 3-17, paragraph 3.2.4: A reference is made to our company, "Northeast Utilities of Vermont." Northeast Utilities operates in Connecticut and Western Massachusetts. The "of Vermont" should be deleted.

2. Page 5-7: The table numbers referred to on this page are not correct.

3. Page 8-1, first paragraph, fifth line: The word "days" should be deleted.

4. Page 8-4, end of Section 8.3: Change displaced to displayed.

5. Page 8-15: The definitions of Tot. Energy and Annul. Cost have been repeated.

We appreciate having the opportunity to review the draft regional report and comment on it. Should you have any questions or require further information, please contact our Mr. Ronald Osella, Licensing Engineer, at (203) 666-6911, extension 5448.

Very truly yours,

NORTHEAST UTILITIES SERVICE COMPANY

W. G. Counsil
Senior Vice President

Enclosures

cc: Mr. W. W. Lindsay, Director
Office of Electric Power Regulation
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D. C. 20426

Mr. James D. Hebson, Regional Engineer
New York Regional Office
Federal Energy Regulatory Commission
26 Federal Plaza
New York, New York 10007

Mr. John R. Ehrenfeld, Chairman
New England River Basins Commission
141 Milk Street, 3rd Floor
Boston, Massachusetts 02109

Col. Max. B. Schieder, District Engineer
U.S. Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, Massachusetts 02154

Mr. Jake Horn
Office of Policy and Management
80 Washington Street
Hartford, Connecticut 06115

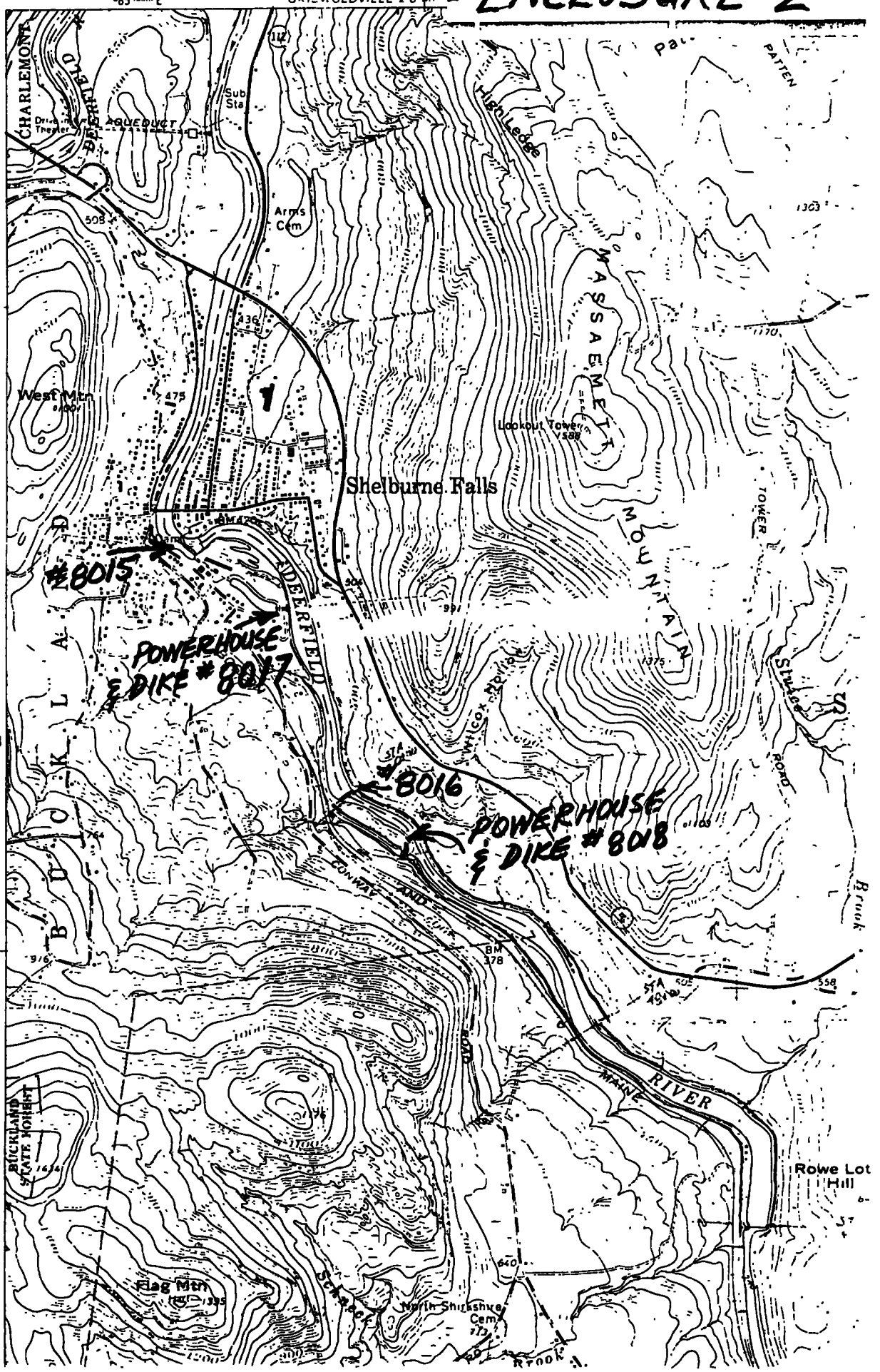
Mr. Joseph S. Fitzpatrick, Director
Office of Energy Resources
73 Tremont Street
Boston, Massachusetts 02108

ENCLOSURE 1

Tamarack Swamp
Birch Hill
Spooner Brook Mtn
Golf Course
Spooner
BULLS BRIDGE DAM
BULLS BRIDGE #8007
Bulls Bridge
SPOONER DAM #0502
Housatonic River
POWER CANAL
NEW MILFORD
FOREBAY DIKE #0501
POWER HOUSE
Gaging Sta
Gardner
Terrible Hill
Housatonic River
SHERMAN
Gaylordsville

GEOLOGICAL SURVEY

ENCLOSURE 2



FEDERAL ENERGY REGULATORY COMMISSION
NEW YORK REGIONAL OFFICE
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10007

October 21, 1980

Colonel Max B. Scheider, Division Engineer
New England Division
Corps of Engineers
424 Trapelo Raod
Waltham, MA 02154

Re: Planning Status Report
Water Resources Appraisal for
Hydroelectric Licensing
Kennebec River Basin, Maine

Dear Colonel Scheider:

We are pleased to furnish you a copy of the referenced Planning Status Report. This updated study identifies the existing and possible future development of hydroelectric power and related water and land resources in the subject Basin. The original report, issued in 1964, as well as the subject report, was initiated by the New York Regional Office of the Federal Energy Regulatory Commission (FERC).

This document represents one of a series of water resources staff planning reports prepared by the FERC staff. Their function is to aid the Commission in considering matters relating to licensing, relicensing, or recommendation for Federal takeover of hydroelectric projects.

Identified are 16 potential conventional hydroelectric projects, having a total installed capacity of about 445 megawatts, and four pumped storage sites, with a total installed capacity of 13,170 megawatts, that could be developed in the Kennebec River Basin. There are currently 17 hydroelectric power projects in the Basin, totaling 216 megawatts of capacity.

Please contact this office, if you desire additional copies.

Sincerely,

James D. Hebson

James D. Hebson
Regional Engineer

Enclosure:

Table 4

Potential Hydroelectric Projects
Kennebec River Basin

Project	Map No.	River	River Mile	Drainage Area (sq mi)	Gross Head (ft)	Potential Capacity (kW)	Storage Capacity Usable for Power (1,000 ac-ft)
			Conventional				
Big Sandy (Norridgewock)	8	Sandy	3	619	15	10,000	-
Shawmut	11	Kennebec	68	4,200	24	3,500	-
Anson	14	Kennebec	96	3,230	24	1,500	-
Moosehead Lake 1/	18	Kennebec	163	1,242	64	24,000	2/
Cold Stream	19	Kennebec	145	1,416	195	90,000	Pondage
The Forks	20	Kennebec	138	1,691	110	48,000	Pondage
Grand Falls	21	Dead	14	769	-	-	226.9
Pierce Pond Div.	22	Pierce Pond Stream	3/	788	690	180,000	10.0
North Anson	23	Kennebec	105	2,797	29	10,000	Pondage
Madison 4/	24	Kennebec	94	3,230	22	18,000	Pondage
Madison Development (Lower Abenaki)	24A	Kennebec	94	-	23	8,600	-
Greenleaf	25	Sandy	9	513	120	10,000	100.0
Somerset	26	Sandy	8	-	-	22,500	-
Carrabassett	27	Carrabassett	NA	-	-	12,000	-
North Anson (Dev.)	28	Carrabassett	NA	-	-	5,500	-
American Tissue	29	Cobbosseecontee	1	-	-	900	-
					Total	444,500	
			Pumped Storage				
Pleasant Ridge	30	Kennebec	122	-	-	1,900,000	-
Site Leo	31	Kennebec	127	-	-	1,450,000	-
Robinson Pond	32	Kennebec	126.5	-	-	7,930,000	-
Bingham No. 3	33	Kennebec	124	-	939	1,890,000	19.0
					Total	13,170,000	

1/ Would replace existing storage structure.
2/ No additional storage capacity. The existing 544,000 acre-feet of usable storage capacity would be used for power.
3/ Flow pumped from Dead River to Pierce Pond Stream via canal.
4/ Would inundate Abenaki Project No. 2364.

GLOSSARY

Abbreviations

British thermal units	Btu	kilowatt	kW
dollars	$	kilowatt-hours	kWhr
gigawatt	GW	megawatt	MW
gigawatt-hours	GWhr	megawatt-hours	MWhr

AVERAGE LOAD-the hypothetical constant load over a specified time period that would produce the same energy as the actual load would produce for the same period.

BENEFIT-COST RATIO (B/C)-the ratio of the present value of the benefit stream to the present value of the project cost stream computed for comparable price level assumptions.

BENEFITS (ECONOMIC)-the increase in economic value produced by a project, typically represented as a time stream of value produced by the generation of hydroelectric power.

BRITISH THERMAL UNIT (Btu)-the quantity of heat energy required to raise the temperature of 1 pound of water degree Fahrenheit, at sea level.

BUS-an electrical conductor which serves as a common connection for two or more electrical circuits. A bus may be in the form of rigid bars, either circular or rectangular in cross sections, or in form of stranded-conductor overhead cables held under tension.

BUSBAR-an electrical conductor in the form of rigid bars, located in switchyard or powerplants, serving as a common connection for two or more electrical circuits.

CAPACITY-the maximum power output or load for which a turbine-generator, station, or system is rated.

CAPACITY VALUE-that part of the market value of electric power which is assigned to dependable capacity.

COSTS (ECONOMIC)-the stream of value required to produce the project output. In hydro projects this is often limited to the management and construction cost required to develop the powerplant, and the administration, operations, maintenance and replacement costs required to continue the powerplant in service.

CRITICAL STREAMFLOW-the amount of streamflow available for hydroelectric power generation during the most adverse streamflow period.

DEMAND-see LOAD.

DEPENDABLE CAPACITY-the load carrying ability of a hydropower plant under adverse hydrologic conditions for the time interval and period specified of a particular system load.

DIVERSION-the removal of streamflow from its normal water source such as diverting flow from a river for purposes such as power generation or irrigation.

DRAFT TUBE-that section of the turbine water passage which extends from the discharge side of the turbine runner to the downstream extremity of the powerhouse structure.

ENERGY-the capacity for performing work. The electrical energy term generally used is kilowatt-hours and represents power (kilowatts) operating for some time period (hours).

ENERGY VALUE-that part of the market value of electric power which is assigned to energy generated.

FEASIBILITY STUDY-an investigation performed to formulate a hydropower project and definitively assess its desirability for implementation.

FEDERAL ENERGY REGULATORY COMMISSION (FERC)-an agency in the Department of Energy which licenses non-Federal hydropower projects and regulates interstate transfer of electric energy. Formerly the Federal Power Commission (FPC).

FIRM ENERGY-the energy generation ability of a hydropower plant under adverse hydrologic conditions for the time interval and period specified of a particular system load.

FORCED OUTAGE-the shutting down of a generating unit for emergency reasons.

FORCED OUTAGE RATE-the percent of scheduled generating time a unit is unable to generate because of forced outages due to mechanical, electrical or another failure.

FOREBAY-this generally refers to the reservoir area located immediately upstream of a dam or powerhouse.

FOSSIL FUELS-refers to coal, oil, and natural gas.

GENERATOR-a machine which converts mechanical energy into electric energy.

GIGAWATT (GW)-one million kilowatts.

HEAD, GROSS (H)-the difference in elevation between the headwater surface above and the tailwater surface below a hydroelectric powerplant, under specified conditions.

HORSEPOWER-mechanical energy equivalent to 550 ft. lbs. per second of work.

HYDROELECTRIC PLANT OR HYDROPOWER PLANT-an electric power plant in which the turbine-generators are driven by falling water.

IMPOUNDMENTS-bodies of water created by erecting a barrier to flow such as dams and diversion structures.

INSTALLED CAPACITY-the total of the capacities shown on the nameplates of the generating units in a hydropower plant.

INTAKE STRUCTURE-a concrete structure arranged to control the flow of water from a reservoir to the ultimate point of use. This structure usually contains either intake gates, or large valves, for regulating the rate of flow and for shutoff purposes.

KILOWATT (kW)-one thousand watts.

KILOWATT-HOUR (kWh)-the amount of electrical energy involved with a one kilowatt demand over a period of one hour. It is equivalent to 3,413 Btu of heat energy.

LOAD-the amount of power needed to be delivered at a given point on an electric system.

LOAD CURVE-a curve showing power (kilowatts) supplied, plotted against time of occurrence, and illustrating the varying magnitude of the load during the period covered.

LOAD FACTOR-the ratio of the average load during a designated period to the peak or maximum load occurring in that period.

LOW HEAD HYDROPOWER-hydropower that operates with a head of 20 meters (66 feet) or less.

MEGAWATT (MW)-one thousand kilowatts.

MEGAWATT-HOURS (MWh)-one thousand kilowatt-hours.

MULTIPURPOSE RIVER BASIN PROGRAM-programs for the development of rivers with dams and related structures which serve more than one purpose, such as - hydroelectric power, irrigation, water supply, water quality control, and fish and wildlife enhancement.

NUCLEAR POWER-power released from the heat of nuclear reactions, which is converted to electric power by a turbine-generator unit.

OPERATING POLICY (Operating Rule Curves)-the technical operating guide adopted for water resources projects to assure that authorized output of the project is achieved. Usually in the form of charts and graphs of reservoir release rates for various operational situations.

OUTAGE-the period in which a generating unit, transmission line, or other facility, is out of service.

PEAK LOAD-the maximum load in a stated period of time.

PEAKING CAPACITY-the part of a system's capacity which is operated during the hours of highest power demand.

PENSTOCK-a large water conduit which is subjected to high internal pressure and is fully self-supporting.

PLANT FACTOR-ratio of the average load to the installed capacity of the plant, expressed as an annual percentage.

PONDAGE-the amount of water stored behind a hydroelectric dam of relatively small storage capacity used for daily or weekly regulation of the flow of a river.

POWER (ELECTRIC)-the rate of generation or use of electric energy, usually measured in kilowatts.

POWER POOL-two or more electric systems which are interconnected and coordinated to a greater or lesser degree to supply, in the most economical manner, electric power for their combined loads.

PUMPED STORAGE-an arrangement whereby electric power is generated during peak load periods by using water previously pumped into a storage reservoir during off-peak periods.

REALLOCATION-the concept of changing the existing distribution in use of reservoir storage space to a new distribution. Reallocation of flood control storage to power storage would reduce reservoir storage space reserved for temporary storage of flood water and increase the conservation storage available for power operation.

RECONNAISSANCE STUDY-a preliminary feasibility study designed to ascertain whether a feasibility study is warranted.

REVERSIBLE PUMP TURBINE-a Francis type hydraulic turbine which is designed to operate a pump in one direction of rotation, and as a turbine in the opposite direction of rotation. Good efficiencies can be achieved with both modes of operation.

RUNNER BLADES-the propeller like vanes of a hydraulic turbine which convert the kinetic energy of the water into mechanical power.

SECONDARY ENERGY-all hydroelectric energy other than FIRM ENERGY.

SPINNING RESERVE-generating units operating at no load or at partial load with excess capacity readily available to support additional load.

STEAM-ELECTRIC PLANT-a plant in which the prime movers (turbines) connected to the generators are driven by steam.

SURPLUS POWER-generating capacity which is not needed on system at the time it is available.

SYSTEM, ELECTRIC-the physically connected generation, transmission, distribution, and other faciltiies operated as an integral unit under one control, management or operating supervision.

TAILWATER LEVEL-the water level measured in the tailrace area immediately downstream from a hydro plant.

THERMAL PLANT-a generating plant which uses heat to produce electricity. Such plants may burn coal, gas, oil, or use nuclear energy to produce thermal energy.

TRANSMISSION-the act or process of transporting electric energy in bulk.

TURBINE-the part of a generating unit which is spun by the force of water or steam to drive an electric generator. The turbine usually consists of a series of curved vanes or blades on a central spindle.

Impulse Turbines-an impulse turbine is one having one or more free jets discharging into an aerated space and impinging on the buckets of the runner, means of controlling the rate of flow, a housing and a discharge passage. The water supplies energy to the runner in kinetic form.

Reaction Turbine-a reaction turbine is one having a water supply case, a mechanism for controlling the quantity of water and for distributing it equally over the entire runner intake, and a draft tube. The water supplies energy to the runner in kinetic form.

Francis Turbine-a reaction turbine having a runner with a large number of fixed buckets, usually nine or more, to which the water is supplied in a whirling radial direction and can be designed for operating heads ranging from 50 feet to 2,000 feet.

Adjustable-Blade Propeller Turbine (KAPLAN)-a reaction turbine having a runner with a small number of blades, usually four to eight, to which the water is supplied in a whirling axial direction. The blades are angularly adjustable in the hub.

Fixed-Blade Propeller Turbine-a reaction turbine having a runner with a small number of blades, usually four to eight, to which the water is supplied in a whirling axial direction. The blades are rigidly fastened to the hub.

UNIT EFFICIENCY-the combined overall efficiency of a hydraulic turbine and its driven generator.

UPRATING-increasing the generating capacity of a hydropower plant by either replacing existing equipment with new equipment or making improvements to the existing equipment.

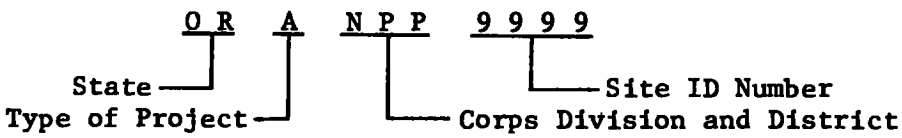
WATT-the rate of energy transfer equivalent to one ampere under a pressure of one volt at unity power factor.

WHEELING-transportation of electricity by a utility over its lines for another utility; also includes the receipt from and delivery to another system of like amounts but not necessarily the same energy.

NHS MAPS

Two maps are inserted into the adjacent pocket. One is an index map and one is a site location map. The primary purpose of the index map is to show the National Electric Reliability Council (NERC) regions, the Corps of Engineers division and district boundaries, and Corps office locations. A separate regional report and accompanying site location map has been prepared for each of the NERC regions depicted on the index map.

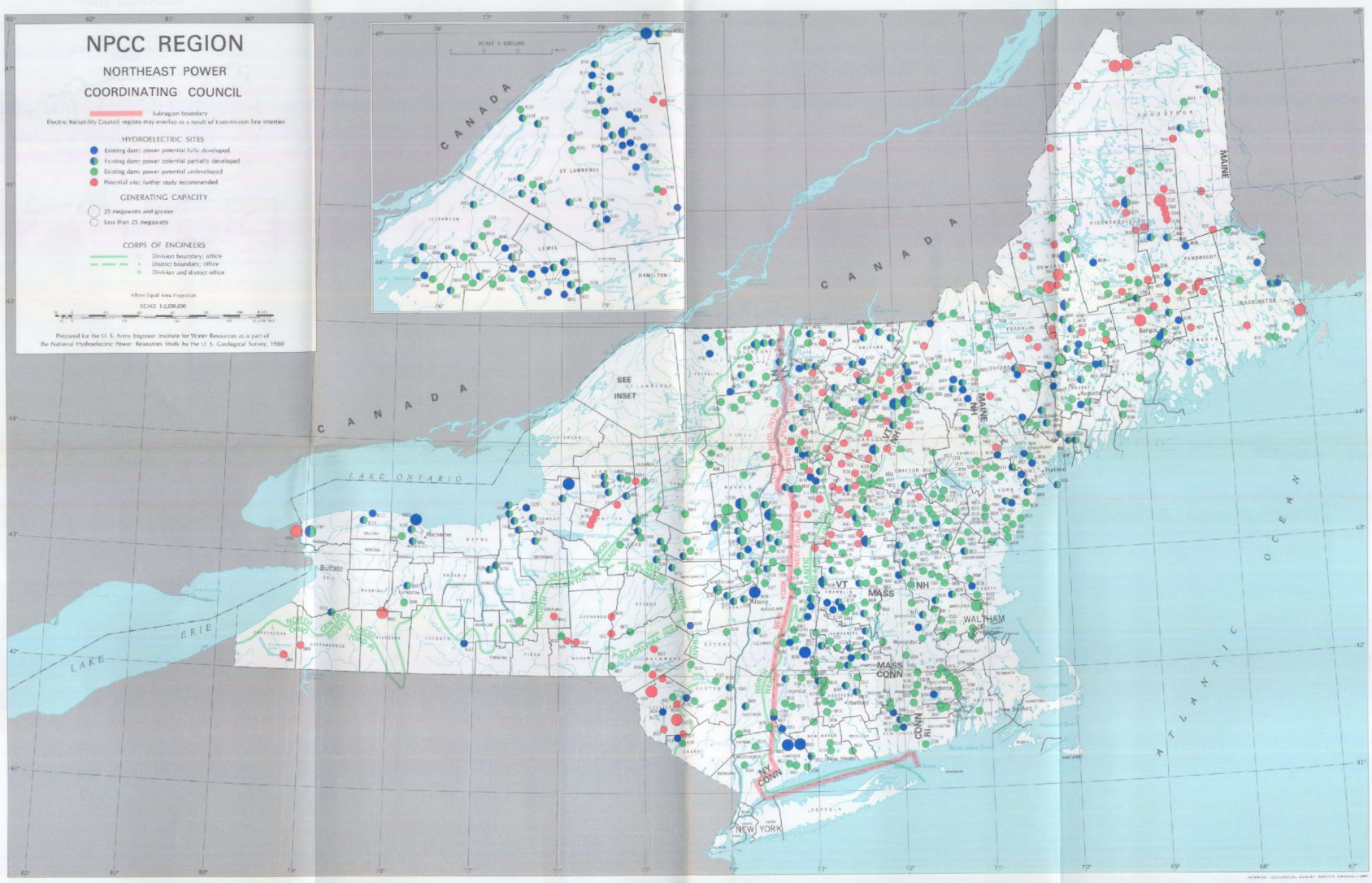
The second map shows existing and potential hydroelectric site locatio for the subject region and is intended to provide general information to the reader about the sites. The size of a project is depicted by the diameter of the circle and the type of project by color. Each site symbol on the map is labeled with a four digit number which corresponds to a ten character National Hydroelectric Power Resources Study site identification code. Each part of the 10 character ID code helps to narrow down the source of information for that site. For example, a typical site identification code is shown below:



Consequently, for more information about a site, one needs to determine from the map a site's state and county, the Corps division and district, and the four digit number. With the site ID number, the site can then be located in the list of sites in the regional report or in Volume XII of the NHS final report. If more detailed information is desired, the appropriate Corps division and/or district office may be contacted.

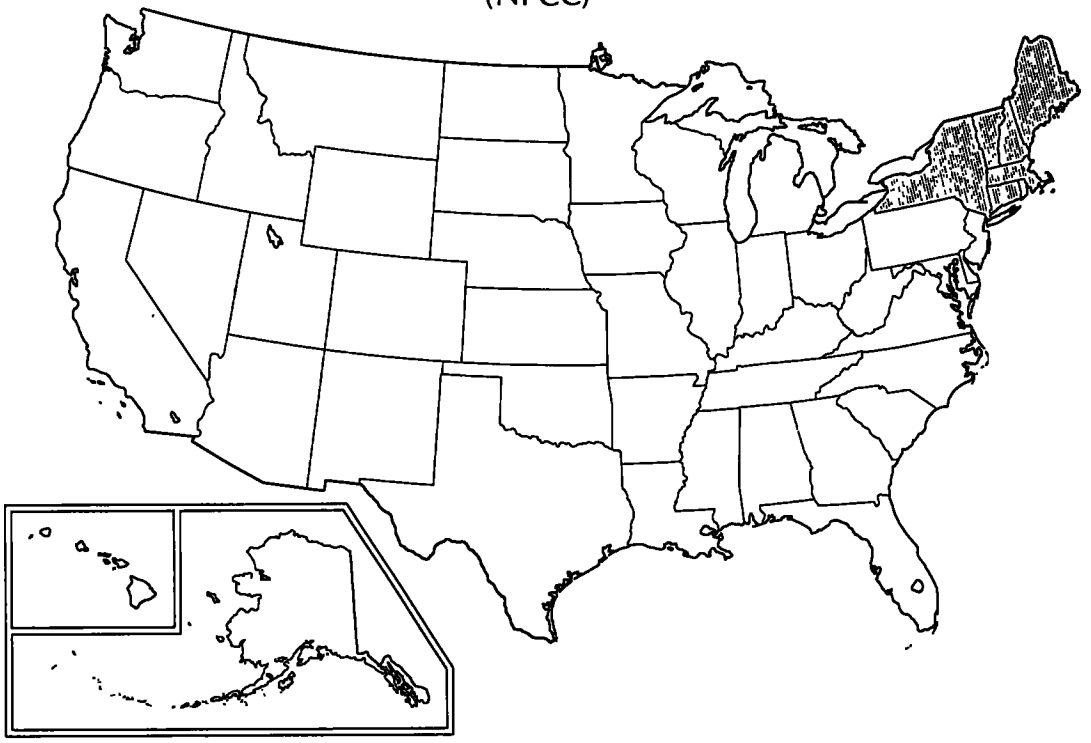
NATIONAL HYDROELECTRIC POWER RESOURCES STUDY

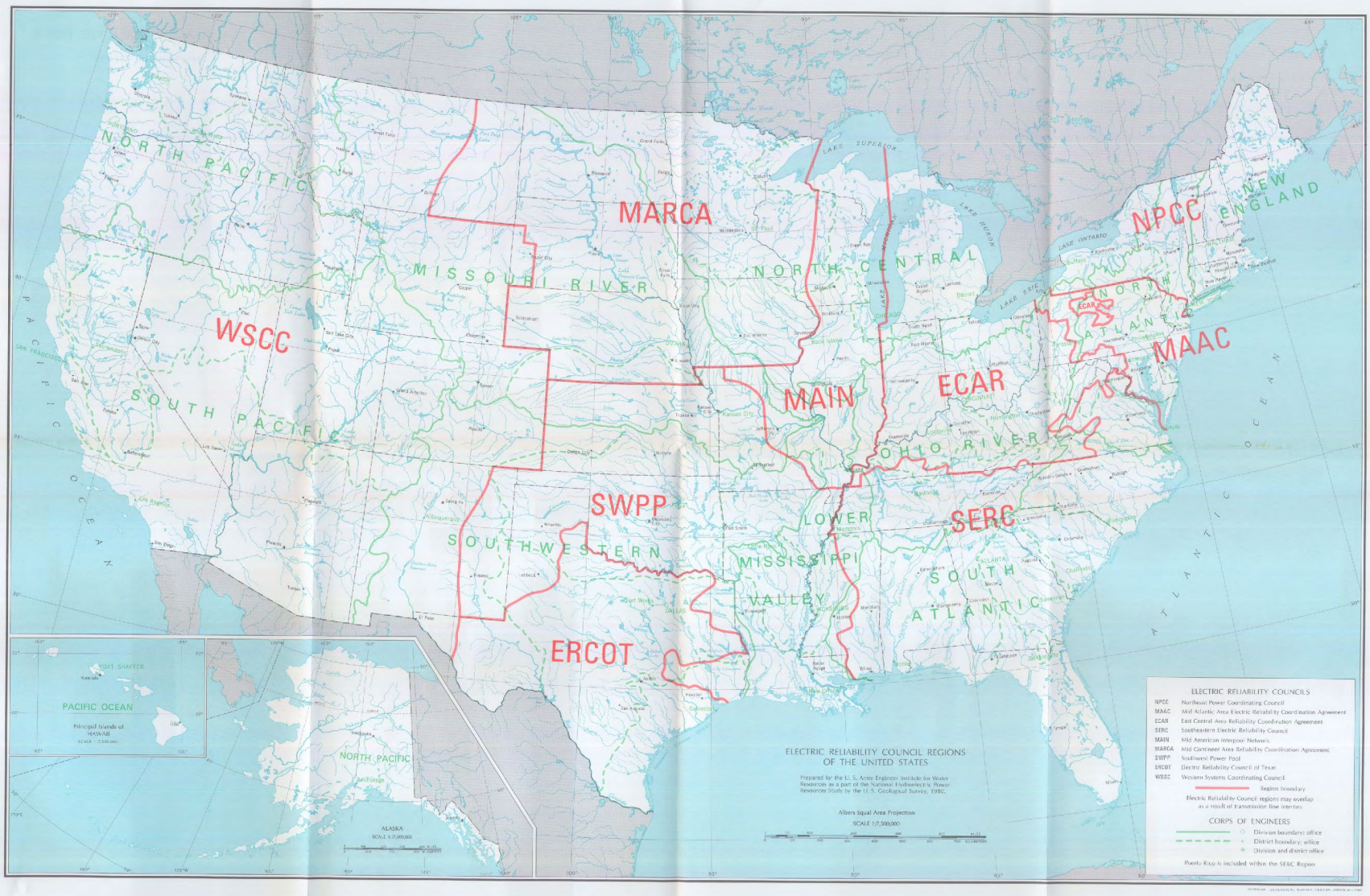
INDEX TO NATIONAL ELECTRIC RELIABILITY COUNCIL REGIONS


NPCC REGION
NORTHEAST POWER
COORDINATING COUNCIL
Subregion boundary
Electric Reliability Council regions may overlay as a result of transmission line interties
HYDROELECTRIC SITES
Existing dam: power potential fully developed
Existing dam: power potential partially developed
Existing dam: power potential undeveloped
Potential site: further study recommended
GENERATING CAPACITY
25 megawatts and greater
Less than 25 megawatts
CORPS OF ENGINEERS
Division boundary; office
District boundary; office
Division and district office
Albers Equal Area Projection
SCALE 1:2,000,000
Prepared for the U. S. Army Engineer Institute for Water Resources as a part of the National Hydroelectric Power Resources Study by the U. S. Geological Survey, 1980
CANADA
LAKE ONTARIO
LAKE ERIE
ATLANTIC OCEAN
SEE INSET
ST LAWRENCE
LEWIS
HAMILTON
AROOSTOOK
PISCATAQUIS
PENOBSCOT
WASHINGTON
FRANKLIN
SOMERSET
OXFORD
YORK
MAINE
VT
NH
MASS
CONN
RI
WALTHAM
Buffalo
Rochester
Albany
Hartford
Portland
Bangor
Worcester
New Bedford
NEW YORK
NORTH ATLANTIC
NEW YORK-NEW ENGLAND
CENTRAL ATLANTIC
PENNSYLVANIA-NEW JERSEY-MARYLAND
NORTH CENTRAL
NORTHERN OHIO
CENTRAL RIVER
PHILADELPHIA INTERCONNECTION

NATIONAL HYDROELECTRIC POWER RESOURCES STUDY

NORTHEAST POWER COORDINATING COUNCIL (NPCC)




MARCA
NPCC
NEW ENGLAND
NORTH PACIFIC
MISSOURI RIVER
NORTH CENTRAL
WSCC
SOUTH PACIFIC
MAIN
ECAR
NORTH ATLANTIC
MAAC
OHIO RIVER
SWPP
SERC
SOUTHWESTERN
LOWER MISSISSIPPI VALLEY
SOUTH ATLANTIC
ERCOT
PACIFIC OCEAN
NORTH PACIFIC
ALASKA
ELECTRIC RELIABILITY COUNCIL REGIONS OF THE UNITED STATES
Prepared for the U. S. Army Engineer Institute for Water Resources as a part of the National Hydroelectric Power Resources Study by the U. S. Geological Survey, 1980.
Albers Equal Area Projection
SCALE 1:7,500,000
ELECTRIC RELIABILITY COUNCILS
NPCC Northeast Power Coordinating Council
MAAC Mid Atlantic Area Electric Reliability Coordination Agreement
ECAR East Central Area Reliability Coordination Agreement
SERC Southeastern Electric Reliability Council
MAIN Mid American Interpool Network
MARCA Mid Continent Area Reliability Coordination Agreement
SWPP Southwest Power Pool
ERCOT Electric Reliability Council of Texas
WSSC Western Systems Coordinating Council
Region boundary
Electric Reliability Council regions may overlap as a result of transmission line interties
CORPS OF ENGINEERS
Division boundary; office
District boundary; office
Division and district office
Puerto Rico is included within the SERC Region