96 FERC ¶ 62, 098
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Central Vermont Public Service Corporation — Project No. 2737-002
Vermont

ORDER ISSUING NEW LICENSE
(Major Project)
(August 1, 2001)

INTRODUCTION

On June 25, 1998, Central Vermont Public Service Corporation (CVPS) filed an application for a new license under Sections 15 and 4(e) of the Federal Power Act (FPA)[1] for the continued operation and maintenance of the 2.25-megawatt (MW) Middlebury Lower Hydroelectric Project No. 2737, located on Otter Creek in the towns of Middlebury and Weybridge, Addison County, Vermont.[2] The project does not occupy any federal lands.

The Commission issued the original license for the Middlebury Lower Project to CVPS on July 8, 1980, effective April 1, 1962.[3] The license expired on July 1, 2000. CVPS proposes no change in the project's current capacity. For the reasons discussed below, I will issue a new license to CVPS for the Middlebury Lower Project No. 2737.

BACKGROUND

January 25, 1999, the Commission issued a public notice that the Middlebury Lower Project was ready for environmental analysis and solicited comments,

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[1] 16 U.S.C. §797(e), 808.

[2] Otter Creek, a tributary to Lake Champlain, is a navigable waterway of the United States to a point upstream from the Center Rutland Project (FERC Project No.2445), located in Rutland County. See 34 FPC 540, 541 (1965). The Middlebury Lower Project is located at river mile 24 and within the navigable portion of Otter Creek.

[3] 12 FERC ¶ 62,006 (1980).

recommendations, and final terms and conditions.[4] No motions to intervene were filed and no party objected to the issuance of this license. The VANR filed comments and terms and conditions on March 29, 1999, and Interior filed comments and terms and conditions on March 31, 1999.

On March 9, 2000, the Commission issued a draft combined environmental assessment (DEA) for this project and the Weybridge Project No. 2731 based on the staff's independent analysis. The DEA recommended that the project be licensed with the enhancement measures proposed by the licensee and with additional staff-recommended environmental measures. Comments filed on the DEA have been addressed in the final environmental assessment (FEA), which was issued November 1, 2000.

The Commission staff also prepared a Safety and Design Assessment for the project, which is available in the Commission's public file.

PROJECT DESCRIPTION

The existing Middlebury Lower Project consists of a concrete gravity dam an impoundment an intake canal, a powerhouse, transmission facilities, and appurtenant facilities. A more detailed project description is contained in ordering paragraph (B)(2).

The Middlebury Lower Project is operated as a run-of-river (ROR) facility. The impoundment elevation typically fluctuates not more than 1 inch from the crest elevation of 314.5 feet during normal operation, and water generally spills over the crest of the dam. No minimum flow release is currently required for the 750-foot-long bypassed reach downstream of the east and west spillway sections. Project operation relies upon inflows from upstream developments and from the Otter Creek drainage basin.

APPLICANT'S PLANS AND CAPABILITIES

In accordance with Sections 10(a)(2)(C) and 15(a)(2) of the FPA, the staff evaluated CVPS's record as a licensee for these: (1) conservation efforts; (2) compliance history and ability to comply with the new license; (3) safe management, operation, and maintenance of the project; (4) ability to provide efficient and reliable electric service; (5) need for power; (6) transmission line improvements; (7) cost effectiveness of the

[4] 64 F.R. 4645-4646 (1999).

plans; (8) compliance record: and (9) ancillary services. I accept the staff's findings in each of these following areas.

Here are the findings:

1. Consumption Efficiency Improvement Program (Section 10(a)(2)(C))

Staff has reviewed the details of CVPS's "Efficiency Plus" conservation programs and concludes that CVPS is making a good faith effort to conserve electricity, reduce peak-hour demands, and to support the objectives of Section 10(a)(2)(C) of the FPA.

2. Section 15(a)(2)(A): Compliance History and Ability to Comply with the New License

Staff has reviewed CVPS's license application and compliance history with the existing license in an effort to judge its ability to comply with the articles, terms, and conditions of any license issued, and with other applicable provisions of this part of the FPA. Staff concludes that CVPS's overall record of making timely filings and compliance with its license is satisfactory.

Based on that review, staff concludes CVPS has the resources and expertise necessary to carry out its plans and comply with all articles, terms and conditions of a new license.

3. The Plans and Abilities of the Applicant to Manage, Operate, and Maintain the Project Safely (Section 15(a)(2)(B))

Staff has reviewed the project safety of the Middlebury Lower Project and concludes that the dams and other project works are safe and that CVPS's record of managing, operating, and maintaining the project facilities has continuously complied with our standards for project safety.

Staff concludes that CVPS's plans to manage, operate, and maintain the project safely are adequate.

4. The Plans and Abilities of the Applicant to Operate and Maintain the Project in a Manner Most Likely to Provide Efficient and Reliable Electric Service (Section 15(a)(2)(C))

The Middlebury Lower Project has operated safely and efficiently for 84 years to provide a continuous, reliable and stable source of power to meet the energy demands of customers in the region.

Staff has reviewed CVPS's load forecast and resource planning to meet energy and capacity requirements over the long term for efficient and reliable electric service, as well as its plans to maintain the project facilities. Staff concludes that CVPS is likely to continue to operate and maintain the project in a manner that provides efficient and reliable electric service under a new license.

5. The Need of the Applicant Over the Short and Long Term for the Electricity Generated by the Project to Serve Its Customers (Section 15(a)(2)(D))

The Project is located in the New England Power Pool (NEPOOL) subregion of the Northeast Power Coordinating Council, as defined by the North American Electric Reliability Council. NEPOOL forecasts an average annual growth rate for 2001 through 2009 of 1.52 percent for the summer peak demand and 1.39 percent for the winter peak demand. These growth rate projections support the finding of a long-term need for electricity generated by the Middlebury Lower Project.

The Middlebury Lower Project plays an integral role in providing power for CVPS's customers and in providing firm power, via the transfer of power, to other New England utilities.

The Staff concludes that there is a short and long-term need for the power from the Middlebury Lower Project and that CVPS has the ability to meet these power needs.

6. The Impact of Receiving or Not Receiving the Project License on the Operation, Planning and Stability of Applicant's Transmission System (Section 15(a)(2)(E))

CVPS does not anticipate that loss of the project would significantly affect its transmission system because the existing transmission capacity would be used by the replacement power.

7. Whether the Plans of the Applicant will be Achieved, to the Greatest Extent Possible, in a Cost Effective Manner (Section 15(a) (2) (F))

The mode of operation of the project would not change under a new license and the existing project which has had it's debt significantly reduced over the previous

license would continue to be a very valuable source of economical electric power. The project with all of the proposed enhancement and mitigation measures would produce power at a cost of about 2.53 cents per kilowatt hour.

Staff concludes that the Middlebury Lower Project, as currently configured and as operated as described in this order, will fully develop and use the economical hydropower potential of the site in a cost-effective manner.

8. Section 15(a)(3)(A): Compliance Record

Staff has reviewed CVPS's compliance record with the terms and conditions of the existing license. Staff concludes its overall record of making timely filings and compliance with the license is satisfactory.

CONSIDERATION OF ANCILLARY SERVICE BENEFITS

In analyzing public interest factors, the Commission takes into account that hydroelectric projects offer unique operational benefits to the electric utility system (ancillary benefits). These benefits include their value as almost instantaneous load-following response to dampen voltage and frequency instability on the transmission system, system-power-factor-correction through condensing operations, and a source of power available to help in quickly putting fossil-fuel based generating stations back on line following a major utility system or regional blackout.

Ancillary benefits are now mostly priced at rates that recover only the cost of providing the electric service at issue, which don't resemble the prices that would occur in competitive markets. As competitive markets for ancillary benefits begin to develop, the ability of hydro projects to provide ancillary services to the system will increase the benefits of the projects.

WATER QUALITY CERTIFICATION

Under Section 401(a)(1) of the Clean Water Act (CWA),[5] the Commission may not issue a license for a hydroelectric project unless the certifying agency has either issued a water quality certification (WQC) for the project or has waived certification by failing to act on a request for certification within a reasonable period of time, not to

[5] 33 U.S.C. § 1341(a)(1).

exceed one year.[6] Section 401(d) of the CWA provides that state certification shall become a condition on any federal license or permit that is issued.[7]

On June 2, 1999, the Vermont Department of Environmental Conservation (VDEC) issued a Section 401 WQC for the Middlebury Lower Project, subject to certain conditions. VDEC's WQC includes 17 conditions or requirements of the licensee. The substantive provisions are summarized below and are attached in full as Appendix A to this order:[8] (a) operate and maintain the project according to the conditions set forth in the WQC; (b) operate the project in a run-of-river mode with a minimum flow of 157 cfs, or instantaneous inflow if less, spilled along the full spillway crest at all times, with all flows spilled at the dam when the project is not generating; (c) use no more than 10 percent of project inflow to refill reservoir storage following and approved reservoir-maintenance drawdown; (d) develop a plan of action to ensure maintenance of bypass flow and run-of-river operation; (e) develop a monitoring plan for continuous monitoring of the spillage into the bypass reach, discharges from the powerhouse, impoundment levels and inflows; (f) consult with the Department of Fish and Wildlife on trashrack design and file the trashrack design information with the VDEC for approval before replacement of the existing trashracks; (g) provide the VDEC a copy of turbine rating curves within one year; (h) develop a plan for proper disposal of debris associated with project operation; (i) file for prior approval of the VDEC all proposals for project maintenance and repair work which may affect water quality; (j) allow, within limits of reasonable safety and liability, public access to the project lands for use of public

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[6]Section 401(a)(1) requires an applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters to obtain from the state in which the discharge originates certification that any such discharge will comply with applicable water quality standards.

[7]33 U.S.C. § 1341(d).

[8]As we have acknowledged in Kennebec Water Power Company, 81 FERC ¶ 61,254 (1997), we are required by the decision of the United States Court of Appeals in American River, et al. v. FERC, 129 F.3d 99 (D.C. Cir. 1997), to accept all conditions in a water quality certification as conditions on a license even if we believe that the conditions may be outside the scope of Section 401. While we have included certain of the provisions as license articles, all of the Section 401 conditions are conditions to this license. In any event, nothing in the conditions of the water quality certification shall be viewed as restricting the Commission's ability or the licensee's obligation, under the Federal Power Act, to take timely action necessary to protect human life or the environment.

resources; (k) construct and maintain recreational facilities consistent with a recreation plan approved by the VDEC; (l) implement, when requested by the VDEC, erosion control measures to address recreation-related erosion on project lands; (m) allow the VDEC to inspect the project area at any time to monitor certification conditions compliance; (n) post a copy of the certification in the powerhouse; (o) obtain prior approval of the VDEC for any changes to the project which would significantly affect the certification; the certification would also: (p) allow the VDEC to request reopen the license to consider modifications to the license to ensure compliance with Vermont Water Quality Standards; and (q) reserve the VDEC's right to add and alter the terms and conditions of the certification when authorized by law as appropriate to carry out its responsibilities during the life of the project with respect to water quality.

SECTION 18 FISHWAY PRESCRIPTION

Section 18 of the FPA authorizes the Secretary of the Interior or the Secretary of Commerce to prescribe fishways at Commission-licensed projects. [9] No Section 18 prescriptions were filed, however, in its comments filed March 31, 1999, Interior did reserve its rights to prescribe fishways at a future date. Article 404 reserves the Commission's authority to require the licensee to construct, maintain, and operate any such fishways that may be prescribed in the future.

COASTAL ZONE MANAGEMENT ACT

Under Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA)[10], 16 U.S.C. § 1456(3)(A), states that the Commission cannot issue a license for a project within or affecting the state's coastal zone, unless the state CZMA agency concurs with the license applicant's certification of consistency with the state CZMA program. The state of Vermont does not have a CZMA program and, therefore, no coastal zone consistency certification is needed for this project.

RECOMMENDATIONS OF FEDERAL AND STATE FISH AND WILDLIFE AGENCIES

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[9] 16 U.S.C. § 811.

[10] 16 U.S.C. 1456(3)(A).

Section 10(j) of the FPA [11] requires the Commission, when issuing a license, to include license conditions based on recommendations of federal and state fish and wildlife agencies, submitted pursuant to the Fish and Wildlife Coordination Act, to "adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife (including related spawning grounds and habitat)" affected by the project.

Pursuant to Section 10(j) of the FPA, I have determined that none of the recommendations of the fish and wildlife agencies are inconsistent with the purposes and requirements of Part I of the FPA or other applicable laws. However, I conclude that the recommendation to require the licensee to consult with the VANR on the final recreation plan for the Middlebury Lower Project does not provide for the protection of fish and wildlife, and I am therefore recommending it under Section 10(a) of the Act, rather than Section 10(j). In the FEA, the staff addressed the concerns of the federal and state fish and wildlife agencies and made recommendations consistent with those of the agencies. This license includes, as license articles, the staff's recommended measures.

COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA[12] requires the Commission to consider the extent to which a project is consistent with Federal and state comprehensive plans for improving, developing, or conserving waterways affected by the project. Under Section 10(a)(2), Federal and state agencies filed with the Commission 23 plans that address various resources in Vermont. Of these, staff identified and reviewed 10 plans relevant to the project.[13] No inconsistencies were found.

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[11]16 U.S.C. § 803(j)(1).

[12]16 U.S.C. § 803.

[13](1) Lake Champlain Fish and Wildlife Policy Committee and Technical Committee. 1981. A strategic plan for development of salmonid fisheries in Lake Champlain. Albany, New York. Waterbury, VT. 19 pp.; (2) Vermont Agency of Environmental Conservation. 1983. Vermont state comprehensive outdoor recreation plan, 1983-1988. Montpelier, VT. June 1983. 195pp. and appendices; (3) Vermont Agency of Environmental Conservation. 1986. Vermont Rivers Study. Waterbury, VT. 236pp.; (4) Vermont Agency of Natural Resources. VDEC. 1988. Hydropower in Vermont: an assessment of environmental problems and opportunities. Waterbury, VT. May 1988. Two volumes; (5) Vermont Agency of Natural Resources. Department of Forests, Parks and Recreation. 1988. Vermont recreation plan. Waterbury, VT. 128 pp.

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COMPREHENSIVE DEVELOPMENT

Sections 4(e) and 10(a)(1) of the FPA [14] require the Commission, in acting on applications for license, to give equal consideration to the power and development purposes and to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Any license issued shall be such as in the Commission's judgment will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for all beneficial public uses. The decision to license this project, and the terms and conditions included herein, reflect such consideration.

In determining whether a proposed project will be best adapted to a comprehensive plan for developing a waterway for beneficial public purposes, pursuant to Section 10(a)(1) of the FPA, the Commission considers a number of public interest factors, including the economic benefits of project power.

Under the Commission's approach to evaluating the economics of hydropower projects, as articulated in Mead Corporation, Publishing Paper Division, [15] the Commission employs an analysis that uses current costs to compare the costs of the project and likely alternative power with no forecasts concerning potential future inflation, escalation, or deflation beyond the license issuance date. The basic purpose of

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Plus map, nine supplemental task group reports, and a 52-page resident recreation survey; (6) Vermont Agency of Natural Resources. Department of Forests, Parks and Recreation. Wetlands Steering Committee. 1988. Wetlands component of the 1988 Vermont recreation plan. Waterbury, VT. July 1988. 43 pp.; (7) U.S. Fish and Wildlife Service. Canadian Wildlife Service. 1986. North American waterfowl management plan. Department of the Interior. May 1986. 19 pp.; (8) U.S. Fish and Wildlife Service. Undated. Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service. Washington, D.C. 11 pp.; (9) U.S. Fish and Wildlife Service. 1989. Final environmental impact statement--restoration of Atlantic Salmon to New England Rivers. Department of the Interior, New Corner, MA. May 1989. 88 pp.; and (10) National Park Service. 1982. The nationwide rivers inventory. Department of the Interior, Washington, D.C. January 1982. 432 pp.

[14] 16 U.S.C. §§ 797(e) and 803(a)(1).

[15] 72 FERC ¶ 61,027 (1995).

the Commission's economic analysis is to provide a general estimate of the potential power benefits and the costs of a project, and reasonable alternatives to project power. The estimate helps to support an informed decision concerning what is in the public interest with respect to a proposed license.

Since issuance of the FEA, the cost of alternative combined-cycle combustion turbine generating capacity has decreased about 10 percent while the cost of natural gas for such generation has increased about 46 percent. We now calculate the cost of alternative power for the project to be about 40.7 mills/kWh. An economic analysis of the Middlebury Lower Project, as proposed by the staff, and based on current economic conditions, without future escalation or inflation, would produce an average of 6,643 MWh per year over a 30-year license period. The annual value of this energy is about $270,370 (or about 40.7 mills per kilowatt-hour (mills/kWh), based on the current average cost of alternative capacity and energy in the region. The annual cost of producing this energy at the Middlebury Lower Project is about $167,255 (25.2 mills/kWh). Therefore, the project, with staff-recommended environmental measures, would produce power at an annual cost of about $103,000 (15.5 mills/kWh) less than currently available alternative power.

The FEA analyzes the effects associated with issuance of a new license for the Middlebury Lower Project. The FEA recommends a variety of measures to protect and enhance the environmental resources, which are adopted, as discussed herein. Staff's recommended environmental measures were developed after considering the comments made by the state and federal resource agencies and other commenting entities.

Based on the review and evaluation of the project, as proposed by the Applicant, and with the additional staff-recommended environmental measures, I conclude that the continued operation and maintenance of the project in the manner required by the license, will protect and enhance fish and wildlife resources, water quality, recreational, aesthetic, and cultural resources. The electricity generated from this renewable water power resource will be beneficial because it will continue to offset the use of fossil-fueled, steam-electric generating plants, thereby conserving nonrenewable resources and reducing atmospheric pollution.

I am requiring the licensee to implement at the Middlebury Lower Project, the environmental measures summarized below:

(1) Operate the project in a run-of-river mode to protect and enhance water quality, fishery resources, and recreational resources (Article 401);

(2) Provide a continuous minimum flow of 157 cubic feet per second to the bypassed reach as a veiling flow over the crest of the dam (Article 402);

(3) Use no more than 10 percent of instantaneous project inflow to refill reservoir following a reservoir drawdown (Article 401);

(4) File for Commission approval, a project operations plan to monitor run-of-river operations and the minimum flows required by Articles 401 and 402. (Article 403);

(5) Reserve Interior's right to prescribe fishways in the future; (Article 404);

(6) Execute and implement a Programmatic Agreement to preserve cultural and historic resources (Article 405);

(7) Develop and implement a final recreation plan (Article 406); and

(8) Grant reasonable limited access and use rights to project lands without prior Commission approval (Article 407).

LICENSE TERM

Section 15(e) of the FPA[16] specifies that any license issued shall be for a term determined to be in the public interest, but the term may not be less than 30 years nor more than 50 years. The Commission's policy establishes 30-year terms for those projects that propose little or no redevelopment, new construction, new capacity, or enhancement; 40-year terms for those projects that propose a moderate amount of redevelopment, new construction, new capacity or enhancement; and 50-year terms for those projects that propose extensive redevelopment, new construction, new capacity or enhancement. [17]

CVPS is not proposing redevelopment of the project, nor am I requiring enhancement measures that would justify a longer term. Accordingly, the license for the Middlebury Lower Project will have a term of 30 years.

SUMMARY OF FINDINGS

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[16] 16 U.S.C. § 808(e).

[17] See, City of Danville, Virginia, 58 FERC ¶ 61,318 (1992).

The combined FEA for this project and the Weybridge Project No. 2731-020, issued November 01, 2000, contains background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment.

The project works are safe and the owner's record of managing, operating, and maintaining these facilities presents no reason to deny issuance of a license. The project will continue to be safe if operated and maintained in accordance with the requirements of this license.

Based upon a review of the agency and public comments filed on the project, and staff's independent analysis pursuant to Sections 4(e) and 10(a)(2) of the FPA, I conclude that issuing a license for the Middlebury Lower Project, with the required environmental measures and other special license conditions, would not conflict with any planned or authorized development, and would be best adapted to the comprehensive development of Otter Creek for beneficial public uses.

The Director orders:

(A) This license is issued to Central Vermont Public Service Corporation (licensee) to operate and maintain the Middlebury Lower Project for a period of 30 years, effective the first day of the month the license is issued. This license is subject to the terms and conditions of the FPA, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the FPA.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G:

Exhibit	FERC No.2737-	Showing
G-1	1005	Project Location Map
G-2	1006	Otter Creek Basin Map
G-3	1007	Project Boundary Map

(2) Project works consisting of: (a) a 30-foot-high, 478-foot-long concrete gravity dam consisting of two ogee spillway sections, a 123-foot-long western spillway section, and a 260-foot-long eastern spillway section; (b) a 1-mile-long, 16-acre impoundment with a normal water surface elevation of 314.5 feet msl; (c) a 400-foot-long, 40-foot-wide intake canal, controlled by a gate structure containing two 23-foot-wide, 13-foot-high gates; (d) a powerhouse located at the downstream end of the intake canal, containing three Francis turbine units for a total installed capacity of 2.25 MW, and an intake containing steel trashracks with a 1.75-inch clear spacing; (e) appropriate generator leads and transformers to connect the project to the interconnected transmission/distribution system at the project switchyard 100 feet east of the powerhouse; and (f) appurtenant facilities

The project works generally described above are more specifically shown and described by those portions of exhibits A and F shown below:

Exhibit A:

Pages A-1 through A-27 describing the project facilities and operation, filed on June 25, 1998, with the application for license.

Exhibit F drawings	FERC No.2737-	Showing
Sheet F-1	1001	General Site Plan
Sheet F-2	1002	East and West Dam Plan and Sections
Sheet F-3	1003	Powerhouse and Forebay Plan
Sheet F-4	1004	Powerhouse Sections

(3) All of the structures, fixtures, equipment, or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibits A, F, and G described above are approved and made part of the license.

(D) This license is subject to all the articles that are set forth in Form L-3 (October 1975), entitled "Terms and Conditions of License for Constructed Major Project Affecting Navigable Waters of the United States," and the following additional articles:

Article 201. The licensee shall pay the United States the following annual charges:

For the purposes of reimbursing the United States for the costs of administering Part I of the Federal Power Act, a reasonable amount as determined in accordance with the provisions of the Commissioner's regulations in effect from time to time. The authorized installed capacity for that purpose is 2.25 MW for the Middlebury Lower Project. This annual charge shall be effective as of the first day of the month in which is license is issued.

Article 202. Pursuant to Section 10(d) of the Act, a specified reasonable rate of return upon the net investment in the project shall be used for determining surplus earnings of the project for the establishment and maintenance of amortization reserves. The licensee shall set aside in a project amortization reserve account at the end of each fiscal year one-half of the project surplus earnings, if any, in excess of the specified rate of return per annum on the net investment. To the extent that there is a deficiency of project earnings below the specified rate of return per annum for any fiscal year, the licensee shall deduct the amount of that deficiency from the amount of any surplus earnings subsequently accumulated, until absorbed. The licensee shall set aside one-half of the remaining surplus earnings, if any, cumulatively computed, in the project amortization reserve account. The licensee shall maintain the amounts established in the project amortization reserved account until further order of the Commission.

The specified reasonable rate of return used in computing amortization reserves shall be calculated annually based on current capital ratios developed from an average of 13 monthly balances of amounts properly includible in the licensee's long-term debt and proprietary capital accounts as listed in the Commission's Uniform System of Accounts. The cost rate for such ratios shall be the weighted average cost of long-term debt and preferred stock for the year, and the cost of common equity shall be the interest rate on 10-year government bonds (reported as the Treasury Department's 10-year constant maturity series) computed on the monthly average for the year in question plus four percentage points (400 basis points).

Article 203. Within 45 days of the date of issuance of the license, the licensee shall file an original set and two duplicate sets of aperture cards of the approved drawings. The set of originals must be reproduced on silver or gelatin 35 mm microfilm.

The duplicate sets are copies of the originals made on diazo-type microfilm. All microfilm must be mounted on type D (3-1/4" x 7-3/8") aperture cards.

Prior to microfilming, the Commission Drawing Number (2737-1 through 2737-7) shall be shown in the margin below the title block of the approved drawing. After mounting, the Commission Drawing Number must be typed on the upper right corner of each aperture card. Additionally, the Project Number, Commission Exhibit (e.g., F-1, G-1, etc.), Drawing Title, and date of this license must be typed on the upper left corner of each aperture card.

The original and one duplicate set of aperture cards must be filed with the Secretary of the Commission. The remaining duplicate set of aperture cards shall be filed with the Commission's New York Regional Office.

Article 204. If the Middlebury Lower Project was directly benefitted by the construction work of another licensee, a permittee, or of the United States on a storage reservoir or other headwater improvement during the term of the original license (including extensions of that term by annual licenses), and if those headwater benefits were not previously assessed and reimbursed to the owner of the headwater improvement, the licensee shall reimburse the owner of the headwater improvement for those benefits, at such time as they are assessed, in the same manner as for benefits received during the term of this new license.

Article 205. Within 90 days from the date of issuance of this license, the licensee shall file with the Commission, in accordance with the provisions of 18 CFR Part 11 of the Commission’s regulations, a statement showing the gross amount of power generation for the project in kilowatt-hours for each calendar year commencing January 1 and ending December 31.

Article 301. Within 90 days of completion of construction of facilities authorized by this license (recreational facilities), the licensee shall file for approval, revised Exhibits F and G to show those project facilities as-built.

Article 401. The licensee shall operate the Middlebury Lower Project in a run-of-river mode for the protection and enhancement of water quality and fisheries resources in Otter Creek.

Consistent with run-of-river operation, the licensee shall maintain a reservoir surface elevation of 314.5 ft. (± 1 inch) National Geodetic Vertical Datum (NGVD) during normal operations, and shall at all times act to minimize the fluctuation of the

reservoir surface elevation by maintaining a discharge from the project so that, at any point in time, flows, as measured immediately downstream from the project tailrace, shall equal instantaneous inflow to the project.

Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee and the Vermont Agency of Natural Resources. If the flow is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each incident, and shall provide the reason for the modified flow release.

If the reservoir is drawn down for any reason the rate of refill shall not be greater than 10 percent of the instantaneous inflow rate (only 10 percent of project inflow at any time may be used to refill storage).

Article 402. The licensee shall release from the Middlebury Lower Project dam a continuous minimum flow of 157 cubic feet per second, as measured in the bypassed reach immediately downstream of the dam, for the protection and enhancement of water quality and aquatic resources in Otter Creek. The licensee shall release this minimum flow as a veiling flow over the crest of the dam, consistent with current operations. The flows are required within 60 days of installation of the stream flow monitoring equipment required by Article 403.

Releases from the Middlebury Lower Project dam to the bypassed reach may be temporarily modified if required by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee and the Vermont Agency of Natural Resources. If the flow is so modified, the licensee shall notify the Commission as soon as possible, but no later than 10 days after each such incident, and shall provide the reason for the modified flow release.

Article 403. Within 90 days after license issuance, the licensee shall file for Commission approval, a project operations plan to monitor run-of-river operations and the minimum flows required by Articles 401 and 402. This plan must be prepared after consultations with the U.S. Fish and Wildlife Service, the U.S. Geological Survey, and the Vermont Agency of Natural Resources.

The plan shall include, at a minimum;

(1) a schedule for installing all flow and elevation measuring devices;

(2) the planned locations of the flow and elevation measuring devices;

(3) specific measures that would ensure that the monitoring system would operate under all conditions (including loss of external electric power to the project);

(4) the design of the devices, including any pertinent hydraulic calculations, technical specifications of proposed instrumentation, erosion and sediment control measures, as appropriate, and design drawings of the system; and

(5) the method of data collection, and provisions for providing data to the regulatory agencies in a timely manner.

The licensee shall include with the plan documentation of agency consultation, copies of agency comments and recommendations on the draft plan, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations before filing the final plan with the Commission. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on site-specific information.

The Commission reserves the right to require changes to the plan. No ground disturbing or land-clearing activities for installation and use of monitoring devices shall begin until the licensee is notified the plan is approved. Upon Commission approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 404. The Commission reserves its authority to require the licensee to construct, operate, and maintain, or to provide for the construction, operation, and maintenance of such fishways as may be prescribed by the Secretary of the Interior, under Section 18 of the Federal Power Act.

Article 405. The licensee shall implement the "Programmatic Agreement Among the Federal Energy Regulatory Commission, the Advisory Council on Historic Preservation, and the Vermont State Historic Preservation Office for Managing Historic Properties That May Be Affected By A License Issuing to Central Vermont Public Service Corporation, For the Continued Operation of the Middlebury Lower

Hydroelectric Power Project in Vermont," executed on February 21, 2001[15], including but not limited to the Cultural Resources Management Plan (CRMP) for the project. In the event that the Programmatic Agreement is terminated, the licensee shall implement the provisions of its approved CRMP. The Commission reserves the authority to require changes to the CRMP at any time during the term of the license. If the Programmatic Agreement is terminated prior to Commission approval of the CRMP, the licensee shall obtain approval before engaging in any ground disturbing activities or taking any other action that may affect any Historic Properties within the project's Area of Potential Effect.

Article 406. Within 90 days of license issuance, the licensee shall file for Commission approval, a project recreation plan.

The recreation plan shall provide for the following recreational enhancements at the Middlebury Lower Project: (1) canoe take-out and portage trail with signs, improved parking facilities, and an ADA-accessible picnic table in the existing recreation area; (2) a footbridge over the historic mill channel that bisects the hill on the west bank of the bypassed reach; (3) and re-establishing vegetation on the hillside in the existing recreation area.

The plan shall include, at a minimum, the following: (1) final site plans for the recreational facilities cited above; (2) design drawings of the directional signs and a description of where they will be located; (3) a discussion of how the design of the facilities take into account the national standards established by the Architectural and Transportation Barriers Compliance Board pursuant to the Americans with Disabilities Act of 1990; (4) a description of the proposed operation and maintenance of the licensee’s recreational facilities, including the responsible entity; (5) a site-specific erosion and sedimentation control plan (ESCP) consistent with the conditions of the water quality certificate; and (6) an implementation schedule.

The licensee shall prepare the recreation plan after consultation with the Vermont Agency of Natural Resources, the Vermont State Historic Preservation Office, the National Park Service, the U. S. Fish and Wildlife Service, and the Town of Middlebury.

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[15] This is the date by which we requested the Advisory Council return the signed original copy of the Executed Programmatic Agreement. The signature pages were returned signed by all parties except the Council, which reports that their signature is not needed. Since we have not been able to secure the original signed copy from the Council, we are using this date, February 21, 2001, as the effective execution date.

The licensee shall include with the plan documentation of consultation, copies of comments and recommendations on the draft plan after it has been prepared and provided to the agencies, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee shall allow a minimum of 30 days for the agencies to comment and to make recommendations prior to filing the final plan with the Commission for approval. If the licensee does not adopt a recommendation, the filing shall include the licensee's reasons, based on project-specific information.

The Commission reserves the right to require changes to the plan. No ground disturbing or land-clearing activities for new recreation facilities shall begin until the licensee is notified the plan is approved. Upon approval, the licensee shall implement the plan, including any changes required by the Commission.

Article 407. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the use and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, canceling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The type of use and occupancy of project lands and water for which the licensee may grant permission without prior Commission approval are:

(1) landscape plantings;

(2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings;

(3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline; and

(4) food plots and other wildlife enhancement.

To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the use and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements.

Before granting permission for construction of bulkheads or retaining walls, the licensee shall:

(1) inspect the site of the proposed construction;

(2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site; and

(3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline.

To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for:

(1) replacement, expansion, realignment, or maintenance of bridges or roads where all necessary state and federal approvals have been obtained;

(2) storm drains and water mains;

(3) sewers that do not discharge into project waters;

(4) minor access roads;

(5) telephone, gas, and electric utility distribution lines;

(6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary;

(7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and

(8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir.

No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for:

(1) construction of new bridges or roads for which all necessary state and federal approvals have been obtained;

(2) sewer or effluent lines that discharge into project waters, for which all necessary federal and state water quality certification or permits have been obtained;

(3) other pipelines that cross project lands or waters but do not discharge into project waters;

(4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary federal and state approvals have been obtained;

(5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile (measured over project waters) from any other private or public marina;

(6) recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and

(7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from project waters at normal surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year.

At least 60 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Energy Projects, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked exhibit G or K map may be used), the nature of the proposed use, the identity of any federal or state agency official consulted, and any federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved exhibit R or approved report on recreational resources of an exhibit E; or, if the project does not have an approved exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include the following covenants running with the land: (i) the use of the lands conveyed shall not endanger health, create a

nuisance, or otherwise be incompatible with overall project recreational use; (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic, recreational, and environmental values of the project; and (iii) the grantee shall not unduly restrict public access to project waters.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

The Director further orders:

(E) The licensee shall serve copies of any Commission filing required by this order on any entity specified in this order to be consulted on matters related to that filing. Proof of service on these entities must accompany the filing with the Commission.

(F) This order is issued under authority delegated to the Director and constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. Section 385.713. The filing of a request for rehearing does not operate as a stay of the effective date of this order or of any other date specified in this order, except as specifically ordered by the Commission. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

J. Mark Robinson
Director
Office of Energy Projects

Appendix A

Summary and conditions of the Water Quality Certification for the Middlebury Lower Project (FERC No. 2737), Issued by the VDEC on June 2, 1999. Such conditions are included in the new license.

The Department, based on the application and record before it, concluded there is reasonable assurance that operation and maintenance of the Middlebury Lower Hydroelectric Project as proposed by the applicant and in accordance with the following conditions will not cause a violation of Vermont Water Quality Standards and will be in compliance with sections 301, 302, 303, 306, and 307 of the Federal Clean Water Act, P.L. 92-500, as amended, and other appropriate requirements of state law:

A. The applicant shall operate and maintain this project consistent the findings and conditions of this certification, where those findings and conditions relate to protection of water quality and support of designated and existing uses under Vermont Water Quality Standards and other appropriate requirements of state law.

B. **Flow Management**. Except as allowed in Condition C below, the facility shall be operated in a true run-of-the-rive-r mode where instantaneous flows below the project shall equal instantaneous inflow to the impoundment at all times. A minimum flow of 157 cfs, or instantaneous project inflow if less, shall be spilled along the full spillway crest at all times. When the facility is not operating, all. flows shall be spilled at the dam.

C. **Flow Management during Impoundment Refill.** Following an approved maintenance drawdown, up to 10% of instantaneous project inflow may be placed in storage in order to refill the impoundment without significantly reducing downstream flows.

D. **Plan for Method to Maintain Bypass Flows and Run-of-the- River Operating Conditions.** The applicant shall develop a plan. including descriptions. hydraulic design calculations. an implementation schedule, and design drawings for the measures to be used to release the bypass flows set forth in Condition B and to maintain a stable headpond with true run-of-the-river operating conditions. After Department approval of the plan. the plan shall be filed with FERC no later than 120 days from the date of license issuance. FERC shall either approve the plan or return the plan to the applicant for revision to incorporate FERC-recommended changes. After revision, the applicant shall submit the plan to the Department for approval of the changes. The plan shall then be filed with FERC for final

approval. The Department reserves the right of review and approval of any material changes made to the plan at any time.

E. **Monitoring Plan for Impoundment and Flow Management.** The applicant shall develop a plan for continuous monitoring of flow releases at the project (spillage into the bypass and discharges from the powerhouse), impoundment levels, and inflows. The applicant shall maintain continuous records of flows and impoundment level's and provide such records on a regular basis as per specifications to the Department. The plan shall be developed in consultation with the Department and the U.S. Fish and Wildlife Service. After Department approval of the plan, the plan shall be filed with FERC no later than 120 days from the date of license issuance. FERC shall either approve the plan or return the plan to the applicant for revision to incorporate FERC-recommended changes. After revision, the applicant shall submit the plan to the Department for approval of the changes. The plan shall then be filed with FERC for final approval. The Department reserves the right of review and approval of any material changes made to the plan at any time.

F. **Prevention of Fish Entrainment at Intakes.** Prior to the next replacement of the intake trashrack, the applicant shall consult with the Department of Fish and Wildlife with respect to trashrack design to determine the appropriate bar clear spacing and rack location and shall file the trashrack design information with the VDEC for approval prior to commencement of work.

G. **Turbine Rating Curves,** The applicant shall provide the Department with a copy of the turbine rating curves, accurately depicting the flow/production relationship, for the record within one year of the issuance of the license.

H. **Debris Disposal Plan.** The applicant shall develop a plan for proper disposal of debris associated with project operation., including trashrack debris. The plan shall be developed in consultation with the Department. After Department approval of the plan, the plan shall be filed with FERC no later than 120 days from the date of license issuance. FERC shall either approve the plan or return the plan to the applicant for revision to incorporate FERC-recommended changes. After revision, the applicant shall submit the plan to the Department for approval of the changes. The plan shall then be filed with FERC for final approval. The Department reserves the right of review and approval of any material changes made to the plan at any time.

I. **Maintenance and Repair Work.** Any proposals for project maintenance or repair work, including desilting, drawdowns below the spillway crest to facilitate repair/maintenance work, and tailrace dredging, shall be filed with the Department for prior review and approval, if said work may adversely affect water quality or cause less-than-full support of designated and existing uses of State waters.

J. **Public Access.** The applicant shall allow public access to the project lands for utilization of public resources, subject to reasonable safety and liability limitations. Such access should be prominently and permanently posted so that its availability is made known to the public. Any proposed limitations of access to State waters to be imposed by the applicant shall first be subject to written approval by the Department. In cases where an immediate threat to public safety exists, access may be restricted without prior approval; the applicant shall so notify the Department and shall file a request for approval, if the restriction is to be permanent or long term, within 14 days of the restriction of access.

K. **Recreational Facilities.** Recreational facilities shall be constructed and maintained consistent with a recreation plan approved by the Department. The plan shall be filed with the Department within 60 days of license issuance and shall include an implementation schedule. The applicant is advised to consult with the Department in the development of plans. Where appropriate, the recreation plans shall include details on erosion control. Modifications to the recreation plan shall also be subject to Department approval over the term of the license.

L. **Erosion Control.** Upon a written request by the Department, the applicant shall design and implement erosion control measures as necessary to address erosion occurring as a result of use of the project lands for recreation. Any work that exceeds minor maintenance shall be subject to prior approval by the Department and FERC.

M. **Compliance Inspection by Department.** The applicant shall allow the Department to inspect the project area at any time to monitor compliance with certification conditions.

N. **Posting of Certification.** A copy of this certification shall be prominently posted within the project powerhouse.

0. **Approval of Project Changes.** Any change to the project that would have a significant or material effect on the findings, conclusions, or conditions of this certification, including project operation, must be submitted to the Department for

prior review and written approval where appropriate and authorized by law and only as related to the change proposed.

P. **Reopening of License.** The Department may request, at any time. that FERC reopen the license to consider modifications to the license as necessary to assure compliance with Vermont Water Quality Standards.

Q. **Continuing Jurisdiction.** The Department reserves the right to add and alter the terms and conditions of this certification, when authorized by law and as appropriate to carry out its responsibilities during the life of the project with respect to water quality.

Wallace McLean Director,
Division of Water Quality
for Canute Dalmasse
Commissioner
Department of Environmental Conservation

Dated at Waterbury, Vermont
this 2nd day of June 1999.