


# STATE OF NEW HAMPSHIRE

## Inter-Department Communication


**DATE:** July 25, 2014

**AT (OFFICE):** NHPUC

**FROM:** Barbara Bernstein   
Sustainable Energy Analyst

**SUBJECT:** DE 13-318, Monadnock Paper Mills, Inc. Application for Certification of Monadnock Dam Station Hydroelectric Facility as a Class I REC Eligible Facility  
**Staff Recommends that Eligibility be Granted**

**TO:** Commissioners  
Debra A. Howland, Executive Director

**CC:** Jack K. Ruderman, Director, Sustainable Energy Division   
David K. Wiesner, Staff Attorney

### *Summary*

On November 7, 2013, the Commission received an application from Monadnock Paper Mills, Inc. (MPM) requesting Class I renewable energy certificate (REC) eligibility certification for the incremental generation output of its 0.425 megawatt (MW) Monadnock Dam Station hydroelectric facility (Monadnock Station), pursuant to RSA 362-F:4, New Hampshire's Renewable Portfolio Standard law. Under RSA 362-F:4, I (i), a hydroelectric generation facility may be eligible for Class I RECs for its increased incremental electricity output resulting from capital investments made after January 1, 2006 with the successful purpose of improving the efficiency or increasing the output of renewable energy from the facility, to the extent such incremental output exceeds the twenty-year historical generation baseline defined by statute.

In support of its application, and in response to a series of several Staff requests, MPM and its consultant, Hydro Management Group, LLC (Hydro Management), submitted detailed supplemental information regarding the capital improvements made to Monadnock Station, the methodology for determining the historical generation baseline of Monadnock Station, and the manner in which the relevant meters would be read and the generation output reported by MPM's independent monitor to the New England Power Pool Generation Information System (GIS).<sup>1</sup>

Based on Staff's review of MPM's application and the supplemental information provided, Staff has concluded that the Monadnock Station may be certified as eligible to produce Class I RECs for its annual generation output in excess of 591,484 kilowatt-hours (kWh), and Staff recommends that the Commission grant such certification effective as of July 10, 2014.

<sup>1</sup> MPM and Hydro Management submitted additional information in response to Staff's requests on March 20, 2014, June 2, 2014, July 2, 2014, and July 10, 2014.

### ***Analysis - Monadnock Station Class I Eligibility***

To qualify as a facility eligible to produce RECs, Puc 2505.02 (b) requires the source to provide the following information in its application:

1. *The name and address of the applicant:* The MPM Monadnock Station application requesting Class I eligibility was initially filed by Michelle Hamm, Manager – Environmental Services, Monadnock Paper Mills, Inc., 117 Antrim Road, Bennington, NH 03442-4205. Additional information was submitted by Stephen J. Hickey, Hydro Management Group, LLC, 55 Union Street, 4<sup>th</sup> Floor, Boston, MA 02108, as authorized agent for MPM.
2. *The name and location of the facility:* Monadnock Station is located on the Contoocook River in Bennington, New Hampshire, on the site of MPM’s paper manufacturing complex.
3. *The ISO-New England asset identification number (if available).* The ISO New England asset identification number, MSS915, reports excess generation from Monadnock Station and two other MPM hydroelectric power stations that is not consumed on-site, behind-the-meter at the MPM paper manufacturing complex and is delivered into the Public Service Company of New Hampshire (PSNH) distribution system. This excess generation should not be certified as eligible for the New Hampshire RPS program, in order to avoid any double counting of RECs reported to GIS by the independent monitor.
4. *The GIS facility code if available.* Monadnock Station is a customer-sited source pursuant to RSA 362-F:2, V. MPM and Hydro Management have established a GIS account under the facility code NON 39968 for the Monadnock Station hydroelectric facility. William P. Short, III has been identified as the independent monitor who will report the gross generation of Monadnock Station to GIS under this account.
5. *A description of the facility including fuel type, gross nameplate generation capacity, the initial commercial operation date, and the date it began operation, if different.* The Monadnock Station facility includes a 500 feet long and 22 feet high concrete gravity dam, with two spillway sections, a headgate structure, two-foot high flashboards, an integral powerhouse containing two turbine-generator units, and other appurtenances. MPM was awarded a \$151,040 grant from the Renewable Energy Fund (REF) in 2011 to rebuild a dormant hydroelectric generating unit and to install flashboards on the dam crest at the Monadnock Station facility. The facility began commercial operation in June 1975; it has a total nameplate capacity of 0.425 MW.
6. *(N/A – pertains to biomass sources).*
7. *All other necessary regulatory approvals, including any reviews, approvals or permits granted by the department.* A Federal Energy Regulatory Commission (FERC) Order Issuing License (Major), FERC Project No. 6597, including the Monadnock Station facility, was provided with the application’s supplemental materials. Therefore, the facility is in compliance with applicable FERC requirements, including those related to fish passage restoration. A copy of the Water

Quality Certification under Section 401 of the United States Clean Water Act, issued by the New Hampshire Department of Environmental Services, was also provided with the application supplemental materials.

8. *Proof that the applicant either has an approved interconnection study on file with the commission, is a party to a currently effective interconnection agreement, or is otherwise not required to undertake an interconnection study.* A copy of the PSNH Interconnection Report for Customer Generation for Monadnock Paper Mills, SESD Site No. 070, dated May 18, 1992, was provided with the application supplemental materials.
9. *(N/A – pertains to biomass sources).*
10. *A description of how the generation facility is connected to the distribution utility.* MPM's electrical generation is interconnected to a tap on line 313, which is normally fed radially from PSNH's Jackman substation.
11. *A statement as to whether the facility has been certified under another non-federal jurisdiction's renewable portfolio standard and proof thereof.* According to MPM, MSS 915 has self-certified as a Class II eligible resource in the State of Maine.
12. *A statement as to whether the facility's output has been verified by ISO New England.* The excess generation from Monadnock Station and two other MPM hydroelectric power stations that is not consumed on-site, behind-the-meter at the MPM paper manufacturing complex, but is delivered into the PSNH distribution system, is reported to GIS under the ISO New England asset identification number MSS915 . This excess generation should not be certified as eligible for the New Hampshire RPS program, in order to avoid any double counting of RECs reported to GIS by MPM's independent monitor.
13. *A description of how the facility's output is reported to the GIS if not verified by ISO-New England.* Monadnock Station is a customer-sited source pursuant to RSA 362-F:2, V, and a GIS account has been established for the facility under the code NON 39968. William P. Short, III has been identified as the independent monitor who will report the gross generation of Monadnock Station to GIS under this account.
14. *An affidavit by the owner attesting to the accuracy of the contents of the application.* An affidavit signed by Mark Lombardi, Facilities Production Manager of MPM, was provided with the application supplemental materials.
15. *The name and telephone number of the facility's operator, if different from the owner.* Monadnock Station is operated by an electrician employed by MPM.
16. *Such other information as the applicant wishes to provide to assist in classification of the generating facility.* Commission Staff worked with MPM staff and Hydro Management to resolve two specific issues regarding the eligibility of Monadnock Station to produce Class I RECs:



**Historical Generation Baseline Determination.** Under RSA 362-F:4, I (i), a hydroelectric generation facility may be eligible to produce Class I RECs for its increased incremental electricity output resulting from capital investments made after January 1, 2006 with the successful purpose of improving the efficiency or increasing the output of renewable energy from the facility, only to the extent such incremental output exceeds its “historical generation baseline.” RSA 362-F:2, X (b) defines “historical generation baseline” as the average annual production of a hydroelectric facility from the later of January 1, 1986 or the date of first commercial operation through December 31, 2005.

MPM was not able to submit actual generation output data for Monadnock Station for most of the 20-year period between 1986-2005. Instead, MPM and Hydro Management submitted aggregate generation output data for all three of the MPM on-site hydroelectric generation facilities for 1986-2004, and separate generation output data for Monadnock Station (as well as aggregate generation output for all three stations during the period 2005-2013). In order to account for the lack of actual generation data from Monadnock Station for 19 of the 20 years during the statutory period, MPM proposed that the percentage of the aggregate generation output of all three facilities that was attributable to Monadnock Station over the 2005-2013 timeframe (calculated to be 11.9%), be applied to the aggregate generation output data for all three stations during the period from 1986-2004.<sup>2</sup>

Based on these calculations, combined with the actual generation data for 2005, MPM determined that the historical generation baseline for Monadnock Station is 591,484 kWh. Staff believes that MPM’s methodology and calculations are reasonable and appropriate estimations under the circumstances, and Staff recommends that the Commission approve the historical generation baseline for Monadnock Station of 591,484 kWh, as so determined by MPM.

**Independent Monitor Meter Reading and GIS Reporting.** MPM has proposed that its independent monitor, William P. Short, III, read the individual generation meter at Monadnock Station, and report the gross generation output to GIS under the facility code NON 39968 established for Monadnock Station. Any excess generation output reported to GIS by PSNH under the code MSS915 should not be qualified for the New Hampshire RPS program, in order to avoid any double counting of RECs. At such time during any year as the cumulative gross generation output of Monadnock Station reported to GIS exceeds 591,484 kWh, any and all further electricity generation reported to facility code NON 39968 will be designated by GIS as eligible for Class I RECs for the remainder of that year.

***Recommendation – Monadnock Station Class I Eligibility***

Staff has reviewed the Monadnock Station Class I REC certification request, and has determined that it meets the eligibility requirements under RSA 362-F:4, I(i) as a Class I hydroelectric facility for the annual increased incremental production of

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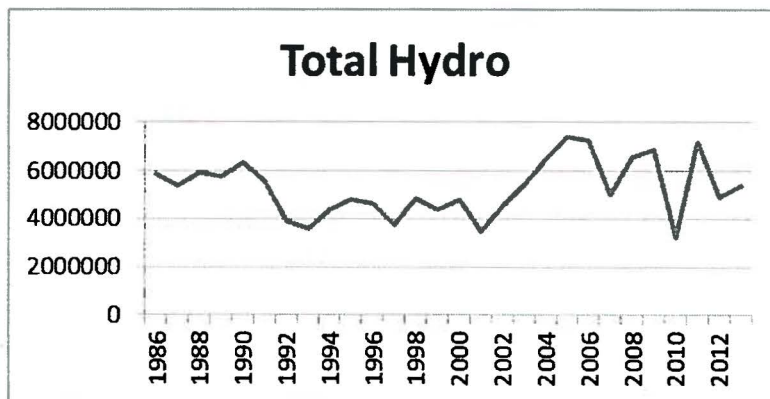
<sup>2</sup> A copy of the spreadsheet containing MPM’s historical generation data and calculations is attached to this memorandum.

electricity in excess of the historical generation baseline of 591,484 kWh, and complies with the New Hampshire Code of Administrative Rules Puc 2500. Staff recommends that the Commission approve the Monadnock Station facility as a Class I renewable energy source, effective as of July 10, 2014, the date upon which Staff was able to make a determination that MPM and Hydro Management had provided all information necessary to complete review of the application.

Staff further recommends that a secretarial letter approving the MPM certification request and related notice letter to GIS expressly state that no electricity generation output reported to GIS by PSNH under facility code MSS915 will be eligible for New Hampshire Class I RECs, in order to avoid double counting of RECs created with respect to generation output reported to GIS by MPM's independent monitor.

**Attachment 1: Monadnock Station Power Generation**

Year	Total Hydro	Monadnock Station	% Monadnock Station	Estimated Monadnock Station	
1986	5851800			696364	
1987	5369200			638935	
1988	5917000			704123	
1989	5770000			686630	
1990	6346400			755222	
1991	5529700			658034	
1992	3904052			464582	
1993	3565900			424342	
1994	4399400			523529	
1995	4787900			569760	
1996	4653800			553802	
1997	3766300			448190	
1998	4859092			578232	
1999	4366800			519649	
2000	4781700			569022	
2001	3494300			415822	
2002	4520012			537881	Base average
2003	5466300			650490	591484
2004	6490500			772370	
2005	7425700	662700	8.9%		
2006	7224900	932000	12.9%		
2007	5008100	724600	14.5%		
2008	6566300	691300	10.5%		
2009	6892900	918000	13.3%		
2010	3202300	532400	16.6%	Mill Wheel down for 3-4 months	
2011	7168900	821200	11.5%		
2012	4922100	574400	11.7%		11.9%
2013	5391500	984100	18.3%		



**SERVICE LIST - EMAIL ADDRESSES - DOCKET RELATED**

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**Pursuant to N.H. Admin Rule Puc 203.11 (a) (1): Serve an electronic copy on each person identified on the service list.**

Executive.Director@puc.nh.gov  
amanda.noonan@puc.nh.gov  
barbara.bernstein@puc.nh.gov  
Christina.Martin@oca.nh.gov  
david.wiesner@puc.nh.gov  
Jack.rudenman@puc.nh.gov  
mhamm@mpm.com  
susan.chamberlin@oca.nh.gov  
tom.frantz@puc.nh.gov

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**FILING INSTRUCTIONS:**

- a) Pursuant to N.H. Admin Rule Puc 203.02 (a), with the exception of Discovery, file 7 copies, as well as an electronic copy, of all documents including cover letter with:**
- DEBRA A HOWLAND  
EXECUTIVE DIRECTOR  
NHPUC  
21 S. FRUIT ST, SUITE 10  
CONCORD NH 03301-2429
- b) Serve an electronic copy with each person identified on the Commission's service list and with the Office of Consumer Advocate.**
- c) Serve a written copy on each person on the service list not able to receive electronic mail.**