



2152 Post Road  
Rutland, Vermont 05701

April 6, 2017

**VIA EMAIL**

Mr. Eric Davis  
River Ecologist  
Vermont Department of Environmental Conservation  
Watershed Management Division  
1 National Life Drive, Main 2  
Montpelier, VT 05620-3522

RE: Essex 19 Hydroelectric Project (FERC No. 2513)  
Response to Comments on Low Impact Hydropower Certification

Dear Mr. Davis:

On December 30, 2016, Green Mountain Power Corporation (GMP) submitted an application for certification to the Low Impact Hydropower Institute (LIHI) for the Essex 19 Project. By letter dated March 12, 2017, Vermont Department of Environmental Conservation (VDEC) submitted comments to LIHI, expressing concerns with the Project's compliance with LIHI criteria for low impact certifications and recommending conditions for any certification issued for the Project. GMP acknowledges VDEC's concerns and recommendations and has developed proposed measures as described herein, to address these concerns.

**Operations and River Flow**

VDEC notes that GMP's Essex 19 Flow Monitoring Plan Refinements document (December 2000) includes a provision to estimate outflow data from GMP's upstream project, Bolton Falls, to estimate inflow to Essex 19 during periods of low flow and run-of-river operations. In order to assist with VDEC's review of Essex 19's operations, GMP provided pond level, generation and downstream USGS flow data. The agency expressed concern that Bolton Falls outflow data is not being collected and utilized to inform how Essex 19 should be operated, particularly during the transition between peaking and run-of-river regimes. As such, VDEC recommends that:

*GMP shall review the flow monitoring procedures at the Essex 19 project and assess compliance with the approved flow monitoring plan including the refinements identified in GMP's 2000 refinement plan. In consultation with VDEC, GMP shall establish a plan for implementing modifications required under the approved plan, and submit this plan to LIHI within 180 days.*

*GMP shall conduct a review of run-of-river operations at the Essex 19 project and determine if additional modifications are needed to ensure compliance with LIHI criteria. In consultation with VDEC, GMP shall establish a plan for implementing any modifications identified, and submit this plan to LIHI within 180 days.*

GMP appreciates VDEC concerns, considering the Flow Monitoring Plan Refinements include a provision for utilizing Bolton Falls outflow data to inform operations of Essex 19. GMP agrees to implement VDEC's recommendations, including establishment of a plan to implement previously approved monitoring refinements and evaluation of the need for further run-of-river operational modifications. GMP requests one year to develop and submit the aforementioned plan.

### **Fish Passage**

Based upon a file review by U.S. Fish and Wildlife Service (USFWS) and inspection of the fish passage facility with USFWS, Vermont Department of Fish and Wildlife (VDFW), USFWS recommended several modifications to the downstream passage facilities to ensure that operating effectively (i.e., the intended attraction flow of 100 cfs is being provided during the fish passage season (April 1 through June 15 and from September 15 through December 15)). VDEC recommends that:

*GMP shall re-initiate consultation on the downstream bypass facility with Vermont Department of Fish and Wildlife and U.S. Fish and Wildlife Service. GMP shall identify any modifications needed to conform with prior resource agency recommendations and develop a schedule for implementation within 180 days.*

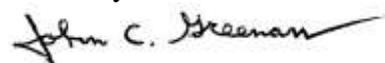
*GMP, in consultation with Vermont Department and Fish and Wildlife and U.S. Fish and Wildlife Service, shall evaluate the performance bypass facility to verify that downstream passage is safe and effective. Results of this evaluation shall be provided to LIHI. If results of this evaluation indicate issues with safety or effectiveness, GMP shall commit to working with the agencies to identify reasonable measures to increase safety and effectiveness and shall document these efforts with an annual report to LIHI.*

Because it was unclear what VTDEC meant by "evaluate the performance", GMP's fisheries consultant, Brandon Kulik of Kleinschmidt Associates, contacted you to discuss this recommendation. Based upon that discussion, it is GMP's understanding that VDFW and USFWS recommended modifications which are intended to minimize abrasion or injury of fish using the bypass system (e.g. rounded edges and plunge pool improvements). It was further clarified that VDEC is requesting methodical hydraulic measurements and observations be made after the physical improvements are completed, to document and confirm that the various improvements recommended by FWS are hydraulically acceptable. It is GMP's understanding that VDEC is not seeking additional fish passage studies (i.e., telemetry).

GMP accepts the fish passage recommendations and will continue to consult with VDFW and USFWS to complete recommended modifications and collectively establish a methodology to confirm hydraulic objectives are met. GMP requests one year to develop the aforementioned schedule. GMP prefers to maintain existing LIHI protocols (i.e., LIHI annual compliance statements) and not file additional annual reports.

If you have any regarding this submission, please contact me at 802-770-3213 or at [john.greenan@greenmountainpower.com](mailto:john.greenan@greenmountainpower.com). Thank you for your ongoing assistance.

Sincerely,



John C. Greenan  
Engineer

Cc: J Lisai - GMP