

Low Impact Hydropower Institute

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LOW IMPACT HYDROPOWER QUESTIONNAIRE APPLICANT FORMAT

[Excerpted from Part VI, Section E of the Low Impact Hydropower Certification Program. Words in italics are defined in Part VI, Section C, and line-by-line instructions are available in Section D of the program, available on-line in PDF format at <http://www.lowimpacthydro.org/Jan02criteria.pdf>].

E. LOW IMPACT HYDROPOWER QUESTIONNAIRE

Background Information	Applicant Answer
1) Name of the <i>Facility</i> .	Hoosic River Project FERC No. 2616 Comprised of the following two facilities (from upstream to downstream): Johnsonville and Schaghticoke.
2) Applicant's name, contact information and relationship to the Facility. If the Applicant is not the Facility owner/operator, also provide the name and contact information for the Facility owner and operator.	Mr. Sam S. Hirschey, P.E. Manager, Hydro Licensing & Regulatory Compliance Erie Boulevard Hydropower, L.P. 225 Greenfield Parkway, Suite 201 Liverpool, New York 13088
3) Location of Facility by river and state.	Hoosic River, New York
4) Installed capacity.	Total installed capacity =18.5 MW (FERC License). By facility, installed capacity is as follows: <ul style="list-style-type: none">• Johnsonville: 2.1 MW• Schaghticoke: 16.4 MW
5) Average annual generation.	82,900 megawatt hours
6) Regulatory status.	Relicensed via a collaborative settlement. The Offer of Settlement (Settlement) was signed in July 2002 and the new FERC license was issued in November 2002.
7) Reservoir volume and surface area measured at the high water mark in an average water year.	Johnsonville: 6,430 acre-feet gross storage, and 450 surface acres Schaghticoke: 1,150 acre-feet gross storage, and 150 surface acres

8) Area occupied by non-reservoir facilities (e.g., dam, penstocks, powerhouse). [Requested information, but not required]	Not required
9) Number of acres inundated by the Facility. [Requested information, but not required]	Not required
10) Number of acres contained in a 200-foot zone extending around entire impoundment. [Requested information, but not required]	Not required
11) Please attach a list of contacts in the relevant Resource Agencies and in non-governmental organizations that have been involved in Recommending conditions for your Facility.	A list of key resource agencies and NGOs involved with the Settlement is attached. Also attached are the FERC license and Settlement Offer which represent the recommendations of resource agencies and NGOs.
12) Please attach a description of the Facility, its mode of operation (i.e., peaking/run of river) and a map of the Facility.	Exhibit F and G drawings are attached. The FERC license and Settlement Offer included in the attachment addressing Item 11 provide a description of the project and its operations.
Questions for “New” Facilities Only: If the Facility you are applying for is “new” i.e., an existing dam that added or increased power generation capacity after August of 1998 please answer the following questions to determine eligibility for the program. [If your facility was constructed and operating as of August of 1998, skip questions 13-17 and proceed to section A].	N/A
13) When was the dam associated with the Facility completed?	N/A

14) When did the added or increased generation first generate electricity?	N/A
15) Did the added or increased power generation capacity require or include any new dam or other diversion structure?	N/A
16) Did the added or increased capacity include or require a change in water flow through the facility that worsened conditions for fish, wildlife, or water quality, (for example, did operations change from run-of-river to peaking)?	N/A
<p>17 (a) Was the existing dam recommended for removal or decommissioning by resource agencies, or recommended for removal or decommissioning by a broad representation of interested persons and organizations in the local and/or regional community prior to the added or increased capacity?</p> <p>(b) If you answered “yes” to question 17(a), the Facility is not eligible for certification, unless you can show that the added or increased capacity resulted in specific measures to improve fish, wildlife, or water quality protection at the existing dam. If such measures were a result, please explain.</p>	<p>N/A</p> <p>N/A</p>

A. Flows	PASS	FAIL	Applicant Answer
<p>1) Is the Facility in <i>Compliance with Resource Agency Recommendations</i> issued after December 31, 1986 regarding flow conditions for fish and wildlife protection, mitigation and enhancement (including in-stream flows, ramping and peaking rate conditions, and seasonal and episodic instream flow variations) for both the reach below the tailrace and all bypassed reaches?</p>	<p>YES = Pass, Go to B N/A = Go to A2</p>	<p>NO = Fail</p>	<p>Yes – The Hoosic River Project is in compliance with resource agency recommendations issued after December 31, 1986 regarding flow conditions. The FERC license, Settlement Offer and 401 WQC include the requirements for flow releases and water level control recommended by the New York State Department of Environmental Conservation (NYSDEC), the U.S Fish and Wildlife Service (USFWS) and the other signatories to the Settlement Offer. In accordance with the FERC license and Settlement Offer, the flow and level requirements were implemented in February 2004. Each year Erie files documentation with the FERC attesting to compliance with flow and level conditions, and next years’ filing will include the Hoosic River Project (an example of such filing is attached).</p> <p>Minimum flows in the bypassed reaches of each development are as follows:</p> <ul style="list-style-type: none"> • Johnsonville: 0 (no bypassed reach) • Schaghticoke: 60 cfs continuous year round <p>The method of release and time of implementation are also established in the Settlement Offer as recommended by resource agencies and others.</p> <p>Baseflows below each powerhouse of each development are as follows:</p> <ul style="list-style-type: none"> • Johnsonville: 220 cfs • Schaghticoke: 240 cfs <p>Maximum daily reservoir fluctuations under normal flow conditions are limited as follows:</p> <ul style="list-style-type: none"> • Johnsonville: 0.25 feet; Jun 1 to Sep 30, 0.50 feet; Oct 1 to May 31 • Schaghticoke: 0.5 feet year round <p>Annual Whitewater Releases have been initiated in 2004 (the 1st annual release was April 21, 2004) in accordance with the FERC license and Settlement Offer (which required the whitewater study and consultation that occurred in 2003).</p>

2) If there is no flow condition recommended by any Resource Agency for the Facility, or if the recommendation was issued prior to January 1, 1987, is the Facility in Compliance with a flow release schedule, both below the tailrace and in all bypassed reaches, that at a minimum meets Aquatic Base Flow standards or “good” habitat flow standards calculated using the Montana-Tennant method?	YES = Pass, go to B NO = Go to A3		N/A
3) If the Facility is unable to meet the flow standards in A.2., has the Applicant demonstrated, and obtained a letter from the relevant Resource Agency confirming that demonstration, that the flow conditions at the Facility are appropriately protective of fish, wildlife, and water quality?	YES = Pass, go to B	NO = Fail	N/A
B. Water Quality	PASS	FAIL	
1) Is the Facility either: a) In Compliance with all conditions issued pursuant to a Clean Water Act Section 401 water quality certification issued for the Facility after December 31, 1986? Or b) In Compliance with the quantitative water quality standards established by the state that support designated uses pursuant to the federal Clean Water Act in the Facility area and in the downstream reach?	YES = Go to B2	NO = Fail	Yes - The Hoosic River Project is in compliance with all conditions pursuant to the Clean Water Act Section 401 Water Quality Certification issued for the project on September 19, 2002 (attached). The Section 401 WQC is conditioned on compliance with the terms of the settlement agreement.
2) Is the Facility area or the downstream reach currently identified by the state as not meeting water quality standards (including narrative and numeric criteria and designated uses) pursuant to Section 303(d) of the Clean Water Act?	YES = Go to B3 NO = Pass		Yes - The NYSDEC has identified the Hoosic River in their June 3, 2002 Section 303(d) List as 2 (b) waters, or <i>Waters Impaired by Fish Consumption Advisories</i> . The NYSDEC classifies waters of the Hoosic River based on designated best use, or Class C (best use is fishing and all other uses except as a source of water supply for drinking, culinary or food processing purposes, and primary contact recreation)
3) If the answer to question B.2 is yes, has there been a determination that the Facility is not a cause of that violation?	YES = Pass	No = Fail	Yes – The NYSDEC Section 303(d) List (attached) indicates contaminated sediments as a source of PCBs.

C. Fish Passage and Protection	PASS	FAIL	
<p>1) Is the Facility in Compliance with <i>Mandatory Fish Passage Prescriptions</i> for upstream and downstream passage of anadromous and catadromous fish issued by Resource Agencies after December 31, 1986?</p>	<p>YES = Go to C5 N/A = Go to C2</p>	<p>NO = Fail</p>	<p>Yes - By letter dated May 24, 1996, the Department of Interior (DOI) once prescribed upstream and downstream passage for American Eel at Schaghticoke and reserved authority for same at Johnsonville.</p> <p>However, by letter dated August 28, 2002, the DOI indicated that the Settlement Offer (signed by DOI July 2002) superceded the terms and conditions prescribed in their May 24, 1996 letter, and stated that their 1996 Section 18 prescription should be considered modified to conform to specifications contained in the Settlement Offer.</p> <p>The FERC license and Settlement Offer require the phased installation of upstream eel conveyance and downstream fish movement systems at both Johnsonville and Schaghticoke. Installation of fish protection and upstream eel conveyance systems at Schaghticoke is underway and will be complete by June 2004. Similar facilities required at Johnsonville will be in place by the end of 2006.</p>
<p>2) Are there historic records of anadromous and/or catadromous fish movement through the Facility area, but anadromous and/or catadromous fish do not presently move through the Facility area (<i>e.g.</i>, because passage is blocked at a downstream dam or the fish run is extinct)?</p> <p>a) If the fish are extinct or extirpated from the Facility area or downstream reach, has the Applicant demonstrated that the extinction or extirpation was not</p>	<p>YES = Go to C2a NO = Go to C3</p> <p>YES = Go to C2b N/A = Go to C2b</p>	<p>NO = Fail</p>	

<p>b) If a Resource Agency Recommended adoption of upstream and/or downstream fish passage measures at a specific future date, or when a triggering event occurs (such as completion of passage through a downstream obstruction or the completion of a specified process), has the Facility owner/operator made a legally enforceable commitment to provide such passage?</p>	<p>YES = Go to C5 N/A = Go to C3</p>	<p>NO = Fail</p>	
<p>3) If, since December 31, 1986:</p> <p>a) Resource Agencies have had the opportunity to issue, and considered issuing, a Mandatory Fish Passage Prescription for upstream and/or downstream passage of anadromous or catadromous fish (including delayed installation as described in C2a above), and</p> <p>b) The Resource Agencies declined to issue a Mandatory Fish Passage Prescription,</p> <p>c) Was a reason for the Resource Agencies' declining to issue a Mandatory Fish Passage Prescription one of the following: (1) the technological infeasibility of passage, (2) the absence of habitat upstream of the Facility due at least in part to inundation by the Facility impoundment, or (3) the anadromous or catadromous fish are no longer present in the Facility area and/or downstream reach due in whole or part to the presence of the Facility?</p>	<p>NO = Go to C5 N/A = Go to C4</p>	<p>YES = Fail</p>	

<p>4) If C3 was not applicable:</p> <p>a) Are upstream and downstream fish passage survival rates for anadromous and catadromous fish at the dam each documented at greater than 95% over 80% of the run using a generally accepted monitoring methodology? Or</p> <p>b) If the Facility is unable to meet the fish passage standards in 4.a., has the Applicant demonstrated, and obtained a letter from the US Fish and Wildlife Service or National Marine Fisheries Service confirming that demonstration, that the upstream and downstream fish passage measures (if any) at the Facility are appropriately protective of the fishery resource?</p>	<p>YES = Go to C5</p>	<p>NO = Fail</p>	
<p>5) Is the Facility in Compliance with Mandatory Fish Passage Prescriptions for upstream and/or downstream passage of <i>Riverine</i> fish?</p>	<p>YES = Go to C6 N/A = Go to C6</p>	<p>NO = Fail</p>	<p>Yes – The FERC license and Settlement Offer require provision of an alternate route of downstream fish movement. At Schaghticoke this alternate route is presently afforded via the agreed-upon 60 cfs bypass flow implemented in February 2004. Upon implementation of the fish protection measures at Johnsonville in 2006, an alternate downstream fish movement route will be provided via the agreed-upon 20 cfs release.</p>
<p>6) Is the Facility in Compliance with Resource Agency Recommendations for Riverine, anadromous and catadromous fish entrainment protection, such as tailrace barriers?</p>	<p>YES = Pass, go to D N/A = Pass, go to D</p>	<p>NO = Fail</p>	<p>Yes - The FERC license and Settlement Offer require the phased installation of fish protection measures consisting of 1.5-inch diameter perforated plates over the existing trash racks at both facilities. Implementation of this measure at Schaghticoke will be complete in June 2004, and will be implemented at Johnsonville by the end of 2006.</p>

D. Watershed Protection	PASS	FAIL	
1) Is the Facility in Compliance with Resource Agency Recommendations, or, if none, with license conditions, regarding protection, mitigation or enhancement of lands inundated by the Facility or otherwise occupied by the Facility, and regarding other watershed protection, mitigation and enhancement activities?	YES and N/A= Pass	NO = Fail	Yes - The Hoosic River Project is in compliance with FERC license requirements regarding PM&E of project lands and watershed protection. These include limited impoundment fluctuations for shoreline erosion control, erosion/sediment control plans for any new construction and management of project lands, through permits, used by the public, municipalities, utilities, etc.
E. Threatened and Endangered Species Protection	PASS	FAIL	
1) Are threatened or endangered species listed under state or federal Endangered Species Acts present in the Facility area and/or downstream reach?	YES = Go to E2 NO = Pass, go to F		No - Except for occasional transient species, there are no state or federal threatened or endangered fish, wildlife or plant species present in the Hoosic River Project area or downstream reaches. Attached is confirmation of the same from NYSDEC and USFWS. Additionally, Erie has complied with Article 409 of the FERC license pertaining to threatened and endangered species. Erie has prepared an Endangered Species Management Plan which assesses the presence or absence of the Karner Blue butterfly (a Federally listed endangered species) within the project area. The plan (and resulting study) were developed in consultation with the USFWS, and the USFWS concurs with the finding that the Hoosic River Project is not likely to adversely affect the Karner blue butterfly. Correspondence pertaining to this consultation is attached.
2) If a recovery plan has been adopted for the threatened or endangered species pursuant to Section 4(f) of the Endangered Species Act or similar state provision, is the Facility in Compliance with all recommendations in the plan relevant to the Facility?	YES = Go to E3 N/A = Go to E3	NO = Fail	N/A

<p>3) If the Facility has received authority to incidentally <i>Take</i> a listed species through: (i) Having a relevant agency complete consultation pursuant to ESA Section 7 resulting in a biological opinion, a habitat recovery plan, and/or (if needed) an incidental Take statement; (ii) Obtaining an incidental Take permit pursuant to ESA Section 10; or (iii) For species listed by a state and not by the federal government, obtaining authority pursuant to similar state procedures; is the Facility in Compliance with conditions pursuant to that authority?</p>	<p>YES = Go to E4 N/A = Go to E5</p>	<p>NO = Fail</p>	<p>N/A</p>
<p>4) If a biological opinion applicable to the Facility for the threatened or endangered species has been issued, can the Applicant demonstrate that:</p> <p>a) The biological opinion was accompanied by a FERC license or exemption or a habitat conservation plan? Or</p> <p>b) The biological opinion was issued pursuant to or consistent with a recovery plan for the endangered or threatened species? Or</p> <p>c) There is no recovery plan for the threatened or endangered species under active development by the relevant Resource Agency? Or</p> <p>d) The recovery plan under active development will have no material effect on the Facility's operations?</p>	<p>YES = Pass, go to F</p>	<p>NO = Fail</p>	<p>N/A</p>
<p>5) If E.2. and E.3. are not applicable, has the Applicant demonstrated that the Facility and Facility operations do not negatively affect listed species?</p>	<p>YES = Pass, go to F</p>	<p>NO = Fail</p>	<p>N/A</p>

F. Cultural Resource Protection	PASS	FAIL	
1) If FERC-regulated, is the Facility in Compliance with all requirements regarding Cultural Resource protection, mitigation or enhancement included in the FERC license or exemption?	YES = Pass, go to G N/A = Go to F2	NO = Fail	Yes - The facilities of the Hoosic River Project are in compliance with all requirements regarding cultural resource protection, mitigation, or enhancement included in the FERC license. A Programmatic Agreement addressing historic/cultural issues is in place, and Erie is in the midst of preparing a Cultural Resources Management Plan in consultation with the New York State Office of Parks, Recreation and Historic Preservation. Erie will file this plan with the FERC in October 2004.
2) If not FERC-regulated, does the Facility owner/operator have in place (and is in Compliance with) a plan for the protection, mitigation or enhancement of impacts to Cultural Resources approved by the relevant state or federal agency or <i>Native American Tribe</i> , or a letter from a senior officer of the relevant agency or Tribe that no plan is needed because Cultural Resources are not negatively affected by the Facility?	YES = Pass, go to G	NO = Fail	N/A

G. Recreation	PASS	FAIL	
1) If FERC-regulated, is the Facility in Compliance with the recreational access, accommodation (including recreational flow releases) and facilities conditions in its FERC license or exemption?	YES = Go to G3 N/A = Go to G2	NO = Fail	Yes - The facilities of the Hoosic River Project are in compliance with access, accommodation and facilities conditions in its FERC license. This includes: <u>Johnsonville:</u> <ul style="list-style-type: none"> • Parking and access to the Johnsonville impoundment; • Parking, car-top boat launch, access and canoe portage near the Johnsonville Dam; and • Allow informal access to area downstream of tailrace. <u>Schaghticoke:</u> <ul style="list-style-type: none"> • Access to an area of the impoundment known as Electric Lake; • Parking and access near the Schaghticoke Powerhouse; and • Scheduled whitewater releases and access.
2) If not FERC-regulated, does the Facility provide recreational access, accommodation (including recreational flow releases) and facilities, as Recommended by Resource Agencies or other agencies responsible for recreation?	YES = Go to G3	NO = Fail	N/A
3) Does the Facility allow access to the reservoir and downstream reaches without fees or charges?	YES = Pass, go to H	NO = Fail	Yes - Both facilities each have access to the reservoir and downstream reaches free of charge.
H. Facilities Recommended for Removal	PASS	FAIL	
1) Is there a Resource Agency Recommendation for removal of the dam associated with the Facility?	NO = Pass, Facility is Low Impact	YES = Fail	No - No resource agency recommended removal of any of the dams associated with the Hoosic River Project.