

October 1, 2013

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

**SUBJECT: Hawks Nest Project (FERC No. 2512-069)
Glen Ferris Project (FERC No. 14439-000)
ILP Relicensing Studies Progress Report #2**

Dear Secretary Bose:

Pursuant to 18 C.F.R. §5.15(b) and as outlined in its May 6, 2013 Revised Study Plan (RSP), Hawks Nest Hydro, LLC, a subsidiary of Brookfield Renewable Energy Group (Brookfield) herein files with the Federal Energy Regulatory Commission (FERC or Commission) the second ILP Relicensing Studies Progress Report for the Hawks Nest and Glen Ferris Projects (Projects).

All relicensing studies listed below are, unless otherwise described, being conducted in accordance with the RSP, which was approved (as filed) by the Commission's Study Plan Determination issued May 31, 2013. This progress report describes the activities performed since the July 1, 2013 filing of the first ILP Progress Report (letter dated June 28, 2013), as well as study activities generally expected to be conducted in the near-term in support of relicensing the Projects.

Water Quality Study

- As reported in the initial progress report, Brookfield initiated the water quality data collection in accordance with the schedule and methods described in the approved study plan. In late June 2013, Brookfield installed water temperature loggers in the Hawks Nest upper impoundment, forebay, bypass reach, and Hawks Nest powerhouse immediate tailrace area.
- Brookfield conducted discrete multi-parameter water quality data collection to record temperature, dissolved oxygen (DO), pH, and specific conductance at the locations described above in June, July, August, and September 2013. Nutrient samples were also collected as part of the monthly water quality samples.
- Brookfield expects to collect one additional set of temperature and multi-parameter data in October 2013, after which time the instruments will be removed.
- A period of sustained low river flows during peak summer conditions did not occur in 2013, as the region experienced a rainy summer. This general condition and higher-than-usual flow conditions in the Hawks Nest bypass reach in July and August precluded safe conduct of the one-week diurnal water quality monitoring described in the Revised Study

Plan. Accordingly, and due to safety considerations, Brookfield is making FERC staff and stakeholders aware of this variance pursuant to the Revised Study Plan, and Brookfield intends to address the variance by the following:

- Conducting a one-week diurnal water quality during the remaining 2013 field season would not yield data representative of peak summer (i.e., high temperature and low flow) conditions expected to occur at the Project.
- A four-month temperature data set and 10-day diurnal water quality data set was collected during the summer of 2012, which was typical dry, hot, summer with low flow conditions. The combined 2012 and 2013 water quality data sets are sufficient to address study plan objectives.
- The water quality sampling data for September 2013 included two spot measurements at most project monitoring locations for temperature, DO, pH, and specific conductance. The first set of readings was collected during the afternoon of Day 1, and the second set was collected during the early morning hours of Day 2. The purpose of collecting the second data set was to evaluate differences in these water quality parameters over one diurnal cycle during summer conditions.
- Other than the final set of water quality data and samples, expected activities to occur in the next quarter include data processing, analysis, and initiating development of the draft study report.

Fish Entrainment Study

- This field study is supported in part by the Water Quality Study (described above) and the Aquatic Species Composition and Abundance Survey (described below), both of which are proceeding in accordance with the RSP.
- Brookfield is presently conducting study planning activities, including coordination to perform field work and refinement of technical methods and, as field conditions allow, intends to complete any field data collection of intake velocities in the fall of 2013.

Aquatic Species Composition and Abundance Survey Study

- Macroinvertebrate surveys were conducted as proposed in the Revised Study Plan in early August 2013. The surveys were conducted in instream habitats in the bypass reach (two representative 100-meter sampling reaches, one upstream and one downstream of Laurel Creek), in accordance with the methodology and protocol described and referenced in the Revised Study Plan. Samples were processed by a NABS-certified lab, according to the West Virginia Department of Environmental Protection's Watershed Assessment Branch 2013 Standard Operating Procedures. Data from macroinvertebrate survey fieldwork is currently being reviewed and summarized in support of the draft study report.
- The mussels survey was conducted as proposed in the Revised Study Plan in early September 2013. Field data collection focused on Hawks Nest reservoir, the bypass

reach, and Glen Ferris reservoir, and a combination of snorkeling and SCUBA methods were employed. Data from mussel survey fieldwork is currently being processed.

- As reported in the initial progress report, as of the end of June 2013 the early summer fisheries survey had been partially completed, including four boat electrofishing sites in the Hawks Nest reservoir, five boat electrofishing sites in the Glen Ferris reservoir, lower bypass reach, and Hawks Nest powerhouse, and two boat electrofishing sites in the Glen Ferris tailrace/Kanawha Falls area in late June 2013. High flow conditions precluded safe or effective conduct of additional fishery survey activities in the Hawks Nest bypass reach and completion in the Kanawha Falls area, and high flows also precluded the use of gillnets due to concerns about debris and potential loss of gillnets. Additional early summer fisheries survey activities were continued in mid July 2013, including boat electrofishing and gillnetting in Glen Ferris reservoir and tailrace (Kanawha Falls area). Continued high river and bypass reach flow conditions precluded effective or safe conduct of any survey activities in the bypass reach until the last week in September. Fisheries surveys in the bypass reach during this time included extensive backpack electrofishing (including quadrat/netsets and dipnetting) sampling in the 2D study site and areas just upstream from Cotton Hill Bridge. Limited overnight gillnetting was also conducted in deeper pools in the bypass reach. Data from fisheries survey fieldwork is currently being processed.
- Expected activities to occur in the next quarter include data processing and analysis and initiation of the draft study report.

Rare, Threatened, and Endangered Aquatic Species Study

- This study is supported by the Aquatic Species Composition and Abundance Survey Study (described above) and the Bypass Reach Aquatic Habitat Use / Instream Flow Study (described below). The need for additional targeted sampling will be based on the results of the surveys described above, the data from which are currently being processed.

Bypass Reach Aquatic Habitat Use / Instream Flow Study

- The initial reconnaissance site visit to select the 2-D study site was conducted on June 27, 2013. Based on this site visit, in which a representative from the West Virginia Department of Natural Resources participated, the Cotton Hill study site (described in the Revised Study Plan) was selected. The primary drivers for selection of this study site were:
 - Availability of all representative habitat types identified during the habitat mapping effort (i.e., shallow pool, deep pool, run, shoal, and cascade)
 - More diverse riparian areas adjacent to the minimum flow stream channel (compared to the Surge Basin site)
 - Availability of good upstream and downstream control points for hydraulic (flow) measurements

- Available access to the site
- Better and safer maneuverability within the stream channel
- In accordance with the approved study plan, the initial instream flow study fieldwork (model calibration data collection) was conducted at the selected study site in late August 2013, including:
 - Installation of survey control points throughout the Cotton Hill site, and installation of stage recorders (level loggers) in 10 locations for additional stage validation throughout the study reach and in side channel, backwater and off-channel habitats.
 - Measurement of average daily discharge (controlled flow releases in the 200 cfs to 1,000 cfs range) over 3 days at numerous locations using Acoustic Doppler Current Profiler or handheld Swiffer flow meters throughout the reach.
 - Collection of water surface elevation measurements and velocity data at 13 transects throughout the reach.
- Expected activities to occur in the next quarter include data processing and additional field work, including substrate and cover data collection, bathymetric survey, and topographic data collection.

Wetland and Riparian Habitat Survey Study

- In accordance with the approved study plan and the study area proposed by same, Brookfield performed a Wetland and Riparian Habitat Survey in mid-September 2013.
- Expected activities to occur in the next quarter include data processing, mapping, and analysis in support of development of the draft study report.

Rare, Threatened, and Endangered Terrestrial Species Study

- Acoustic surveys for Indiana bat and Virginia big-eared bat were conducted in early August 2013.
- The RTE Wildlife Survey, including habitat surveys focusing on green salamander and Allegheny woodrat, and survey of the entire study area (as appropriate) for bald eagle, was conducted in August-September 2013.
- The RTE Botanical Survey (focusing on potential occurrences of running buffalo clover, Virginia spiraea, and state-level rare species) was conducted in mid-September 2013, in part in conjunction with the Wetland and Riparian Habitat Survey.
- Expected activities to occur in the next quarter include data processing, mapping, and analysis in support of development of the draft study report and informal consultation with state and federal wildlife agencies.

Recreation Flow Assessment Study

- Survey forms for the controlled whitewater releases and extended whitewater evaluation were finalized in consultation with the Recreation Study Working Group in July 2013.
- Brookfield conducted a conference call with the Recreation Study Working Group in early July 2013 to continue discussions initiated in the spring of 2013 regarding logistics and execution of the approved recreation study plans. Additional consultation and coordination with Study Working Group occurred since that time by email.
- Brookfield's representatives met with local members of the Recreation Study Working Group on July 30 to plan and coordinate logistical aspects of the controlled whitewater releases scheduled for August 2013.
- In accordance with the approved study plan, Brookfield conducted controlled flow releases for two of the six recreational flows to be observed, 500 cfs and 1,000 cfs, on August 28-29, 2013. The releases were well-attended, with participation by approximately 50 individuals.
- Brookfield also initiated the extended whitewater evaluation task described in the Revised Study Plan by posting the survey forms and study instructions on Brookfield's public relicensing website (<http://hawksnestandglenferris.com>) and notifying the Recreation Study Working Group of their availability. Brookfield has not received any completed extended whitewater evaluation surveys to date.
- Brookfield developed a provisional stage-discharge curve for the USGS New River Below Hawks Nest Dam gage for use during the Recreation Flow Assessment Study.
- Expected activities to occur in the next quarter include: (a) any refinements which may be necessary of the state-discharge curve described above in cooperation with USGS, (b) conduct of the four additional controlled whitewater releases if flow conditions allow for same in 2013 (1,500 cfs, 2,000 cfs, 2,500 cfs and 3,000 cfs), and (c) processing and summary of survey responses collected to date.
- If some or all of the remaining four controlled releases cannot be accommodated in 2013, they will be scheduled for 2014 pursuant to the Revised Study Plan.

Recreation Use and Needs Assessment Study

- Brookfield conducted a conference call with the Recreation Study Working Group in early July 2013 to continue discussions initiated in the spring of 2013 regarding logistics and execution of the approved recreation study plans.
- Brookfield continued to conduct the supplemental recreation facility data collection activities as described in the approved RSP, including the vehicle counts at the Kanawha Falls and Cotton Hill parking areas and collection of General Recreation Visitor Questionnaire surveys at survey boxes installed near the Cotton Hill and Hawks Nest powerhouse recreation areas, as described in the approved RSP.

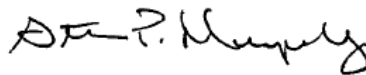
- Vehicle counts occurred on six days in the summer of 2013 (two holidays, two weekdays, and two weekend days), in accordance with the Revised Study Plan.
- The survey boxes are expected to remain in place through the end of the recreation season, approximately November 2013, as appropriate based on weather and field conditions.
- Expected activities to occur in the next quarter include summary and processing of data for survey responses received to date and development and distribution of the County Resident Users Survey and Web-Based Survey described in Task 4 of the Revised Study Plan.

Cultural Resources Study

- Brookfield determined the Area of Potential Effects (APE) in consultation with the West Virginia State Historic Preservation Office (WVSHPO) and other Consulting Parties. By letter dated August 9, 2013, the WVSHPO provided concurrence with Brookfield's proposed definition of the APE as all lands within the boundaries of the Hawks Nest and Glen Ferris Projects, as well as any lands outside of the boundaries of the projects where cultural resources may be affected by project-related activities conducted in compliance with the FERC license(s).
- The Phase I archaeological investigation described in the Revised Study Plan was conducted and completed in July-August 2013.
- Expected activities to occur in the next quarter include distribution of the Phase I Report to Consulting Parties.

If you have any questions regarding this progress report, please contact me at (315) 598-6130.

Respectfully,



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