Federal Energy Regulatory Commission

Public Scoping Meetings

April 24-25, 2019

Niagara Hydroelectric Project No. 2466-034

A few reminders...

- Sign-in sheet
- Court reporter
  - Please state your name and affiliation
  - Transcripts will become part of the public record
- Scoping document and brochures

Meeting Agenda

- Introduction to FERC
- Licensing Process Overview
- Project overview – Appalachian Power Company
- What is Scoping?
- Resource Issues and discussion
- Submitting comments and staying informed
- Review important dates
- Final comments or questions

Federal Energy Regulatory Commission or FERC

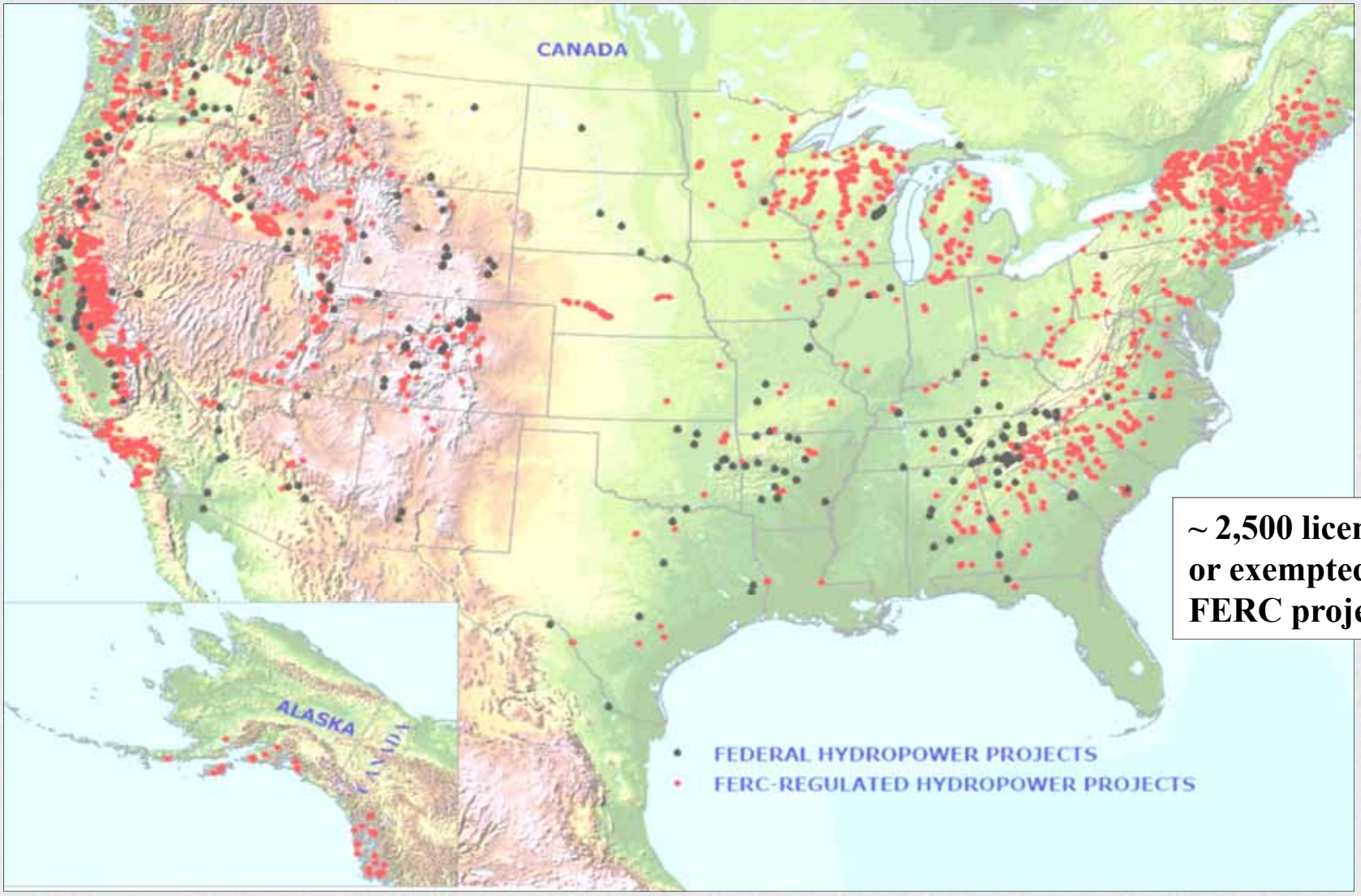
- Independent federal agency that regulates
  - the interstate transmission and sale of electricity and natural gas,
  - the interstate transportation of oil by pipeline
  - reviews proposals to build interstate natural gas pipelines, natural gas storage projects, and liquefied natural gas (LNG) terminals,
  - licenses non-federal hydropower projects.
- Led by 5 Commissioners appointed by the President.
- Supported by 12 offices and a staff of about 1,500 employees.

FERC Continued

Federal Energy Regulatory Commission | Washington D.C.

- Office of Energy Projects
  - *Division of Hydropower Licensing*
  - Division of Hydropower Administration and Compliance
  - Division of Dam Safety and Inspections
- FERC's authority derives from the Federal Power Act (FPA) "balancing act"
- Licenses are issued for a term of 30 to 50 years

Hydropower in the U.S.



~ 2,500 licensed or exempted FERC projects

Purpose of Scoping

- To gather information (scope) for the relicensing of the Niagara Project, P-2466
- Current license issued March 25, 1994, expires February 29, 2024
- Scoping is required by the National Environmental Policy Act

Licensing Process

- Starts with scoping
- Ends with a License Order
  - Terms and conditions for operation
  - Environmental protection, mitigation, and enhancement measures
- How do we get there?
  - Gather information
  - Conduct environmental review
  - Rely on input from stakeholders

Integrated Licensing Process (ILP)

Founded on three principles:

1. Early identification and resolution of studies
2. Integration of agency and tribal permitting process needs, including NEPA, the applicant's pre-filing consultation, and federal and state permitting needs (e.g., section 401 CWA, ESA)
3. Establishment of timeframes to complete the process steps

ILP Overview

Detailed schedule (Process Plan) in Appendix B of SD1

ILP Pre-filing Steps

- January 28, 2019 – NOI/PAD filed
- March 26, 2019 – SD1 issued
- April 24-25, 2019 – Scoping Meetings
- **May 25, 2019 – Scoping Comments Due**
- July 9, 2019 – File Proposed Study Plan (PSP) and issue SD2 if needed
- August 8, 2019 – PSP Meeting
- October 7, 2019 – File comments on PSP
- November 6, 2019 – File Revised Study Plan (RSP)
- November 21, 2019 – File comments on RSP
- December 6, 2019 – Issue Study Plan Determination

What is Scoping?

- Identify environmental issues/concerns.
- Potential effects of the project on the aquatic, terrestrial, and human environment.
- What information is needed to analyze these potential effects for NEPA purposes?
  - Existing information
    - Resource reports, survey data, etc.
  - New information
    - Comments from stakeholders, agencies

Scoping Involves

- Identifying and receiving input on:
  - Resources that may be cumulatively affected*

    * i.e., considering the effect of the project in conjunction with other activities in the river basin
  - Reasonable alternatives to the project and the applicant's proposed actions
  - Resources not requiring detailed analysis
- Be thinking about these topics (information gaps, etc.) throughout the presentation

Project Overview

Jon Magalski
Appalachian Power Company

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Niagara Hydroelectric Project
(FERC Project No. 2466)

Scoping Meeting and Site Visit

April 24-25, 2019

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Niagara Hydroelectric Project

- Project Overview
- Project Facilities – Civil Works
- Recreation Facility
- Project Operations
- Contact Information

Niagara powerhouse

Niagara Hydroelectric Project

- Licensee is Appalachian Power Company (Appalachian), a unit of American Electric Power (AEP)
- Current Federal Energy Regulatory Commission (FERC) license expires February 29, 2024
- Notice of Intent (NOI) and Pre-Application Document (PAD) filed with FERC on January 28, 2019
- Using Integrated Licensing Process (ILP)
- FERC Project No. 2466

Niagara tailrace (facing upstream)

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Niagara Hydroelectric Project

- The Niagara Project is located about 6 miles southeast of the City of Roanoke in Roanoke County, Virginia
- The Project is the most upstream dam on the Roanoke River and is located near river mile (RM) 355
- The reservoir is approximately 2 miles long and converges with Tinker Creek

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Niagara Hydroelectric Project Facilities – Civil Works

- The Niagara Project was constructed in 1906, Appalachian took ownership in 1924
- Authorized installed capacity of 2.4 MW
- Operates in a run-of-river (ROR) mode
- The primary features include:
  - 2-mile-long, 62-acre reservoir with 425 acre-feet storage capacity
  - 452-ft-long, 52-ft-high concrete gravity dam (free-overflow ogee spillway, intake, and overflow auxiliary spillway)
  - 11-ft-diameter, 500-ft-long corrugated metal pipe penstock
  - 42-ft-high concrete powerhouse (north end of the dam) containing two vertical Francis turbine-generator units
  - 1,500-ft long bypass reach
  - Transmission facilities

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Niagara Project Facilities

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Niagara Recreation Facility

Canoe Portage Trail

- The 1,600-foot canoe portage trail consists of a take-out point upstream of the boat barrier with steps up the shoreline
- Trail provides safe passage around the dam for those wishing to paddle the short reach downstream into Smith Mountain Lake
- American Whitewater lists the stretch below the Project as Class I and II rapids under normal flows

Portage Put-In Location

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Project Operations

- The Project operates in a ROR mode under all flow conditions, with outflows approximating inflows. There is no appreciable storage available, and inflows are used for generation and/or spilled at the dam.
- The current FERC license requires the Project to maintain the reservoir at or near elevation 884.4-ft, which is 0.6-ft below the crest of the spillway
- The Project is required to release a minimum of 50 cfs (or inflow to the Project reservoir, whichever is less) below the Project, as measured at the U.S. Geological Survey (USGS) gage located ~200-ft downstream of the powerhouse (USGS 2056000 Roanoke River at Niagara, VA) (Article 202).
- The Project is also required to provide a minimum flow of 8 cfs into the bypass reach (Article 203). The minimum bypass flow may be provided through the sluice gate or flow over the spillway.

Project Operations

- When the reservoir elevation reaches 886 ft, water begins to spill over the auxiliary spillway. When the tailwater elevation at the powerhouse reaches 832 ft, the generating units are shut down.
- The Project is automated and can be operated from AEP's 24-hour control center located in Columbus, Ohio. The units can only be started or stopped manually. However, in the event of an emergency, the Columbus control center does have the ability to trip the units.
- To perform maintenance and inspection activities and to start and stop the turbine-generator units as needed, Project operators are typically on site daily (Monday through Thursday) and on a call-out basis, 24-hours per day, 365 days per year.

Contact Information

For questions regarding the Niagara Project, please contact:

Jonathan Magalski

Environmental Specialist Consultant

American Electric Power Service Corporation

c/o Appalachian Power Company

614-716-2240

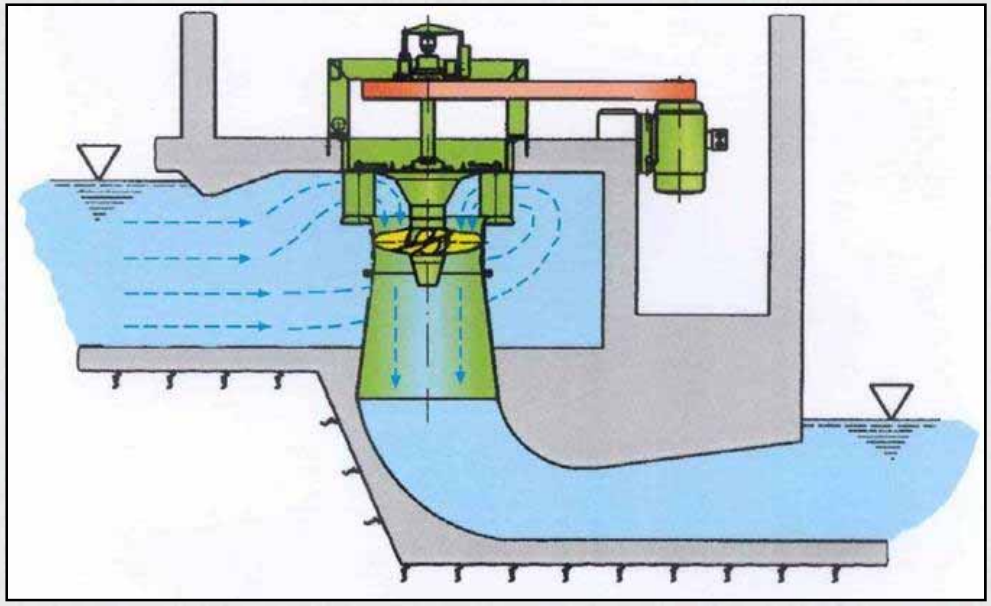
jmmagalski@aep.com

Relicensing website: aephydro.com

BOUNDLESS ENERGY℠

Preliminary List of Resource Issues

- Page13 of the Scoping Document.
- Any additional issues or concerns?
- Identified issues you disagree with? Why?



Resource Groups

- Geology & Soils
- Aquatic Resources
- Terrestrial Resources
- Threatened & Endangered Species
- Recreation, Land Use, Aesthetics
- Cultural Resources
- Developmental Resources

Geology & Soils

- Effects of continued project operation and maintenance on shoreline stability of the impoundment.

– Shoreline Stability Assessment (proposed)

Aquatic Resources

- Effects of continued project operation and maintenance on water quality, including dissolved oxygen (DO) and water temperature, upstream and downstream of the impoundment, including the bypassed reach.*

- Adequacy of the existing minimum flows for protecting aquatic habitat for resident fishes, including species of special concern (orangefin madtom), and other aquatic resources downstream of the powerhouse (50 cfs) and in the bypassed reach (8 cfs).*

- Effects of continued project operation and maintenance on aquatic resources, including entrainment and impingement mortality of resident fishes.

  – Water Quality Study and Bypassed Reach Aquatic Habitat Study (proposed)

Terrestrial Resources

- Effects of continued project operation and maintenance on riparian, wetland, and upland habitat and associated wildlife such as bald eagles.

  - Wetland and Riparian Habitat Survey (proposed)

Threatened & Endangered Species

- Effects of continued project operation and maintenance on the federally listed Indiana bat, northern long-eared bat, and Roanoke logperch(*).

Recreation Resources

- Effects of continued project operation and maintenance on recreation, land use, and aesthetics within the project area including the project impoundment, tailrace, and bypassed reach.

- Adequacy of existing recreational facilities and public access to the project to meet current and future recreational demand.

– Recreational Needs Assessment (proposed)

Cultural Resources

- Effects of project operation and maintenance on historic properties and archeological resources that are included in, eligible for listing in, or potentially eligible for inclusion in the National Register of Historic Places.
- Effects of project operation and maintenance on any previously unidentified historic or archeological resources or traditional cultural properties that may be eligible for inclusion in the National Register of Historical Places.

Developmental Resources

- Effects of the project and any recommended environmental measures on the project's economics.

Submitting Comments and Study Requests

- Can give oral comments today
- To file comments with the Commission:
  - Prefer *e*Filing
  - Instructions on page 19 and in the brochures
  - **DUE BY May 25, 2019**

Keeping in the Loop

- FERC Online (see brochure)
  - Docket number for the project is P-2466
- *e*Subscription
  - Email notifications of all filings/issuances
- *e*Library
  - All public documents for the project are archived here
- Mailing List on p. 24 of SD1
  - Request to be added (email efiling@ferc.gov)
  - Receive <u>hard copies</u> of *all* project issuances

Will Take Oral Comments Now…

Additional Comments or Questions?

MEETING ADJOURNED

Allyson Conner

allyson.conner@ferc.gov

202-502-6082