

Janesville Central Hydroelectric Project (P-2347)

Beloit Blackhawk Hydroelectric Project (P-2348)

December 11, 2019







- 1. Welcome and Introductions
- 2. Review of FERC Traditional Licensing Process and Schedule
- 3. Overview of the Project Features and Operations
- Overview of Information Provided in the Pre-Application Document (PAD) and other sources
- 5. Public Utility Regulatory Policies Act (PURPA) benefits
- 6. Proposed Resource Studies
- 7. Next Steps
- 8. Comments
- 9. Site visit



Review of Traditional Licensing Process (TLP) and Schedule "Three Stage Process"

TLP First Stage

- Applicant issues NOI, PAD, request to use TLP, and newspaper notice;
- Commission approves use of TLP (within 60 days of filing NOI);
- Applicant conducts joint agency/public meeting and site visit (within 30 to 60 days of TLP Approval/Notice of Commencement);
- Resource Agencies and tribes provide written comments and study requests (no later than 60 days following the meeting); and
- Only if necessary, agencies, tribes or Applicant request dispute resolutions.



TLP Second Stage

- Applicant completes reasonable and necessary studies (usually 1-2 field seasons – spring through fall);
- Applicant provides Draft License Application (DLA) and study results to resource agencies and tribes (usually a few months after the last study season);
- Resource agencies and tribes comment on DLA (no later than 90 days after receipt of DLA); and
- Only if necessary, the Applicant conducts a joint meeting if substantive disagreements exist.

TLP Third Stage

• Applicant files Final License Application with Commission and sends copies to agencies and tribes (no later than 2 years prior to license expiration).



TLP Schedule

TLP Steps	Timelines	Due Date			
Initial Activities					
Licensee Submits PAD, NOIs, and TLP Requests	5 years before the license expiration date	8/30/2019			
Stakeholders provide comments regarding TLP	Within 30 days after the request	9/29/2019			
FERC approval of TLP	Within 60 days after the request	Issued October 16, 2019			
Stage 1 Consultation					
Licensee conducts Joint Meeting and site visits with potential stakeholders	30 to 60 days after the TLP approval	12/10/19 & 12/11/19			
Stakeholders submit comments on PAD/Study Requests	Comments and study requests due 60 days after Joint Meeting	2/10/2020			
Stage 2 Consultation					
Licensee's Study, Year 1	Begins after receipt of study requests	2020			
Licensee's Study, Year 2, if necessary	Begins after completion of Study Year 1	2021			
Licensee Submits Draft License Application	Begins after completion of Study Year 2 (soft deadline)	3/31/2022			
Stakeholders and FERC provide comments on the Draft Application	Within 90-days after receipt of Draft License Application	6/29/2022			
Stage 3 Consultation					
Licensee Files Final Application	At least two years prior to license expiration	8/31/2022			
FERC issues Public Notice of Application	Within 14 days of FLA submittal	9/14/2022			
Current License Expires		8/31/2024			



Dams in Rock River Watershed



- 8 State Regulated
- 8 FERC Regulated
 - -4 FERC Licenses
 - Janesville
 - Beloit
 - Rockton
 - Dixon
 - -4 FERC Exemptions
 - Upper Watertown
 - Lower Watertown
 - Upper Sterling
 - Sears





Janesville Central Hydroelectric Project (P-2347)



Rock River

- Located in City and Town of Janesville in Rock County, Wisconsin
- Janesville dam is approximately at River Mile 180
- 10th of 16 dams on the Rock River and the 6th hydroelectric project (from downstream)
- Approximately 13 river miles downstream of Indianford Dam
- Approximately 17 river miles upstream of the Beloit Hydroelectric Project (P-2348)



Proposed Janesville Project Boundary



Proposed Boundary

- Follows maximum elevation contour of 769.4 feet NGVD
- Includes project facilities

Exceptions and Changes

- Addition of all lands and waters below 769.4-foot contour
- Removal of lands and waters above 769.4-foot contour
- Extended to include 500-foot buffer downstream of the dam and the canoe portage put-in



Janesville Project Reservoir



- Rock River at River Mile 180 (at Dam)
- Drainage Area
 3,240 square
 miles
- **Existing** (at normal surface elevation)
 - 548 acres
 - 3,675 acre-ft. of storage
- Proposed (at maximum surface elevation)
 - 140 acres
 - 700 acre-ft. of storage



Janesville Project Primary Features



- Powerhouse
- Gated Section (38.3 ft)
- Overflow Spillway Section (207 ft)
- Step-up transformer
- Tailrace



Janesville Project Overview



• Licensee-Midwest Hydro LLC

•

•

- Average Annual Calendar Year River Flow of 2,020 cfs
- River flow ranges from 550 cfs to 5,030 cfs
- Minimum hydraulic capacity for each turbine is 500 cfs
- Maximum hydraulic capacity for each turbine is 600 cfs
- Maximum powerhouse hydraulic capacity is 1,200 cfs



Janesville Project Electrical Equipment



- Unit 1 250 kW
- Unit 2 250 kW
- Total Plant Capacity – 500kW
- Step-up Transformer (pad mounted)



Janesville Project Operations



- Run of River
- Minimum flow 35 cfs or inflow, whichever is less
- Minimum reservoir elevation 768.8 feet
- Maximum reservoir elevation 769.4 feet
- In order to maintain minimum flow, the reservoir elevation is maintained above 769.1





Beloit Blackhawk Hydroelectric Project (P-2348)



Beloit Project Location

Rock River

- Located in city and town of Beloit in Rock County, Wisconsin
- Beloit Dam is approximately at River Mile 163
- 9th of 16 dams on the Rock River and the 5th hydroelectric Project (from downstream)
- Approximately 17 river miles downstream of the Janesville Hydroelectric Project (P-2347)
- Approximately 4 river miles upstream of the Rockton Hydroelectric Project (P-2373)



Proposed Beloit Project Boundary



- Proposed Boundary
 - Follows maximum elevation contour of 744.7 feet NGVD
 - Includes project facilities

Exceptions and Changes

- Addition of all lands and waters below 744.7-foot contour
- Removal of lands and waters above 744.7-foot contour
- Extended to include 400-foot buffer downstream of dam



Beloit Project Reservoir



- Rock River at River Mile 163 (at Dam)
- Drainage Area
 3,460 square
 miles
- **Existing** (at normal surface elevation)
 - 485 acres
 - 3,255 acre-feet of storage
- **Proposed** (at maximum surface elevation)
 - 586 acres
 - 3,340 acre-feet of storage



Beloit Project Primary Features



- Powerhouse
- Non-overflow Section (38.5 ft)
- Radial Gate and Stoplog Section (91.1 ft)
- Needle Section (81.2 ft)
- Slide Gate Section (101.6 ft)
- Tailrace
- Step-up transformer



Beloit Project Overview



- Licensee-Midwest Hydro LLC
- Average Annual Calendar Year River Flow of 2,199 cfs
- River flow ranges from 550 cfs to 5,372 cfs

•

•

•

- Minimum turbine hydraulic capacity is 500 cfs
- Maximum turbine hydraulic capacity is 725 cfs
- Maximum powerhouse hydraulic capacity is 725 cfs



Beloit Project Electrical Equipment



- Unit 1 480 kW
- Total Plant
 Capacity 480 kW
 - Step-up transformer (pad mounted)

•



Beloit Project Operations



- Run of River
- Minimum reservoir elevation 744.4 feet
- Maximum reservoir elevation 745.0 feet
- Normal reservoir elevation 744.7 feet
- No required minimum flow, but all inflows less than 500 cfs passed through automated gate

Resource Information



Geology and Soils



- Mixture of armored and vegetated shorelines
- Moderately erodible soils
- All Licensee-owned shorelines stabilized
- Rock County Shoreland Zoning Ordinance limits ground disturbance



Water Quality



Rock River Impaired at both Projects (303d list)

- Total Phosphorous
- Low DO
- Sediment
- Total Suspended Solids

TMDL approved by EPA in 2011



Water Quality (continued)

Monitoring Station	Location	Years Monitored	Janesville	Beloit
543018	Rock River - at US Hwy 14 Bridge	1975, 1980, 1981, 2005, 2006	х	
543202	Rock River - 1 mile below Yahara R	1980	х	
543203	Rock River - 2 miles below Yahara R	1980	х	
543204	Rock River - 3 miles below Yahara R	1980, 1981	х	
543205	Marsh Creek - just above mouth	1978	х	
10014699	Rock River - Traxler Park	2007 to 2019	х	
10031034	Rock River - Riverside Park Boat Landing	2010	х	
10030790	Rock River - downstream of US 14 West Bank	2009	х	
543033	Rock River - at Town Line Road Bridge	1975, 1980		х
543094	Rock River - just below Beloit Dam	1975		х
543217	Rock River - below Bass Creek	1980, 1981, 2009		х
543218	Rock River - at CMSP/P Bridge	1978, 1980, 1981		х
543219	Rock River - above Garden Village	1980		х
543220	Rock River - above Garden Village	1980		х
543222	Rock River - at Henry Avenue	1980, 1981		х
543223	Rock River - just above Beloit Dam	1977, 1978, 1980		х
10017509	Rock River - access N Auburn Dr Town of Beloit	2009 to 2019		х

- Eight Monitoring Stations in the Janesville Project Area
- Nine Monitoring Stations in the Beloit Project Area
- Monitoring includes
 - Temperature
 - pH
 - Dissolved Oxygen
 - Nitrogen
 - Phosphorous
 - Beach Sampling



Fish and Aquatics



- Periodic fish surveys from 1971 to 2018
- 58 fish species identified in the Janesville Project
 - White sucker
 - Creek chub
 - Bigmouth buffalo
 - Fantail darter
 - Spotfin shiner

•

- 35 fish species identified in the Beloit Project
 - Emerald shiner
 - Channel catfish
 - Common carp
 - White sucker
 - Bluegill



WDNR Mussel Surveys







WDNR Mussel Surveys





- Black Sandshell
- Elktoe
- Ellipse (Thr)
- Fatmucket
- Fluted-shell
 - Monkeyface (Thr)
- Mucket
- Pimpleback

- Plain Pocketbook
- Rainbow Shell (End)
- Round Pigtoe
- Spike
- Squawfoot
- Three-ridge
- Wartyback
- Wabash Pigtoe
- White Heelsplitter







Botanical Species

- Common Tree Species
 - Red and silver maple, black and green ash, basswood, and swamp white oak



- Common Wetland Species
 - Cattails, sedges, grasses and rushes





Wildlife Species

- Common Mammal Species
 - Cottontail rabbit, gray squirrel, raccoon, white-tailed deer, and woodchuck
- Common Bird Species
 - American robin, Canadian goose, great blue heron, mallard, and wood duck
- Common Reptile Species
 - American toad, common gartersnake, leopard frog, ornate box turtle, and painted turtle





- No invasive species identified at Janesville Project Area
- Three invasive species identified at Beloit Project Area
 - Curly-leaf Pondweed
 - Flowering Rush
 - Purple Loosestrife









Wetlands

Janesville Project Wetlands



Janesville Project Wetlands

- -Riverine 128.3 acres
- –Freshwater Pool 5.9 acres
- -Forested/Shrub 0.4 acres
- <u>Beloit Project Wetlands</u> –Riverine – 606.4 acres –Forested/Shrub – 32.0 acres –Emergent – 6.5 acres

Beloit Project Wetlands





Threatened and Endangered Species

- Information Planning and Conservation (IPaC) Resource List
- Federally Protected Species Likely to Occur in Vicinity of Projects
 - Northern Long Eared Bat
 - Eastern Massasauga
 - Rusty Patched Bumble Bee
 - Whooping Crane
 - Bald Eagle
 - Eastern Fringed Prairie Orchid
 - Prairie Bush Clover





Threatened and Endangered Species (continued)

 State Threatened and Endangered Fish and Reptile Species Likely to Occur in Vicinity of the Projects



Gravel Chub



Ozark Minnow



Redfin Shiner



Ornate Box Turtle



Threatened and Endangered Species (continued)

 State Threatened and Endangered Bird Species Likely to Occur in Vicinity of the Projects





Acadian Flycatcher

Cerulean Warbler

Hooded Warbler



Threatened and Endangered Species (continued)

- State Protected Plant Species Likely to Occur in Vicinity of the Projects
 - Pink Milkwort
 - Prairie Bush Clover
 - Small Skullcap
 - Hairy Wild Petunia
 - Kitten Tails
 - Pale Purple Coneflower
 - Round-fruited St. John's Wort
 - Prairie Parsley
 - Wooly Milkweed
 - Hills Thistle







Janesville Project Recreation Resources



Recreation Resources in FERC Project Vicinity

- Riverside Park (City of Beloit)
 - Boat launch*, pavilions, splash pad, scenic overlooks, hiking and x-country ski trails
- Traxler Park (City of Beloit)
 - Boat launch*, pavilions, playground equipment
 - Home of the Aqua Jays Water Ski Show Team
- Canoe Portage
- Rock River National River Trail

Other Recreation Resources in Project Vicinity

- Rock River Park (Town of Beloit)
 - Boat launch
- Ice Age Trail
 - Hiking and biking trails



Beloit Project Recreation Resources



Recreation Resources in FERC Project Vicinity

- Happy Hollow Park (Rock County)
 - Boat launch*, hiking trails, picnic areas
- Preservation Park (Town of Beloit)
 - Boat launch*, paved trail, picnic shelters, playground area
- Big Hill Park (City of Beloit)
 - Boat launch*, nature center, hiking trails, scenic overlook, picnic shelters
- Armstrong Eddy Park (Town of Beloit)
 - Boat launch*, fishing dock*, hiking trails, playground
- Wooten Park (City of Beloit)
 - Boat launch*, tennis courts
- Riverside Park (City of Beloit)
 - Boat launch*, hiking/biking path, picnic shelters, playground, paddleboat rentals
- Rock River National River Trail



Beloit Project Recreation Resources (continued)



Other Recreation Resources in Project Vicinity

- Reverend US Pride Park (City of Beloit)
 - Hiking trail, picnic shelter, playground, skate park
- John Rose Canoe and Kayak Launch (City of Beloit)
 - Carry in boat access



Cultural and Historical Resources

Janesville - Railroad Bridge Historic Site 82754



Beloit - WP&L Powerplant Historic Site 85209



- Existing Programmatic Agreement
- Determine NRHP eligibility
- Shoreline surveys



- What are PURPA benefits?
 - Benefits under section 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA) requires electric utilities to purchase electricity from, and to sell electricity to, qualifying facilities, which may include hydroelectric projects.
- Midwest Hydro has exercised their rights under PURPA and reserve the right to continue to do so in the future.



Proposed Resource Studies



- Cultural Resources
 - Licensee is proposing to consult with SHPO regarding need for evaluations for NRHP eligibility for each Project.
 - Licensee is proposing to conduct shoreline surveys at each Project according to requirements of the Programmatic Agreement.
- Geology and Soils
 - Licensee is not proposing any studies specific to geologic or soil resources, but the cultural resources shoreline survey proposed above will identify any eroding shoreline areas at each Project.
- No other resource studies proposed



• NEXT STEPS

 Submit Comments and/or study requests to FERC with a courtesy copy to Eagle Creek Renewable Energy and Mead & Hunt within 60 days – <u>by February 10, 2020</u>

• Use FERC study request criteria to facilitate better study requests:

- 1. Describe goals and objectives of each study proposal and information to be obtained;
- 2. Explain the relevant resource mgmt. goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;
- 3. If the requestor is not a resource agency, explain any relevant public interest considerations;
- 4. Describe existing information concerning the subject of the study proposal and the need for additional information;
- 5. Explain any nexus between project operations and effects on the resource to be studied and how the study results would inform the development of license requirements;
- 6. Explain how any study methodology is consistent with generally accepted practice in the scientific community;
- 7. Describe consideration of level of effort and costs, and why any proposed alternative studies would not be sufficient to meet the stated information needs.





Comments or Questions?

PLEASE SEND ANY COMMENTS OR QUESTIONS TO:

MIKE SCARZELLO Eagle Creek Renewable Energy <u>Michael.Scarzello@eaglecreekre.com</u> (973) 998-8400

SHAWN PUZEN Mead & Hunt <u>Shawn.Puzen@meadhunt.com</u> (920) 593-6865



Site Visits

Beloit



- There are two Site Visits after today's meeting
- Beloit Site Visit immediately following meeting at 830 Pleasant St, Beloit
- Janesville Site Visit after Beloit site visit completed using personal transportation to the site at 15 West Centerway St, Janesville

(at intersection of West Centerway and N. River St)

Janesville

