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BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

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BALL MOUNTAIN DAM HYDROELECTRIC PROJECT : Docket Number
TOWNSHEND DAM HYDROELECTRIC PROJECT : P-13226-003
: P-13368-002
- - - - - -x

Vermont Agricultural Business
Education Center
Marla Lawrence Room
8 University Way
Brattleboro, Vermont
Wednesday, May 11, 2011

The above-entitled matter came on for scoping
meeting, pursuant to notice, at 7:10 p.m., moderator,
Nicholas Palso.

1 P R O C E E D I N G S

2 MR. PALSO: Okay. Good evening, again. Thank
3 you all for showing up again.

4 It's ten after so we'll begin. We figure that
5 anyone who had difficulty finding the place would make it.

6 I see we have just one new gentleman here tonight
7 from the people that were here this afternoon. So I'll just
8 ask you directly.

9 Would you like to see our presentation?

10 MR. PALSO: Okay. So in that case I guess we'll
11 go through the process that -- we'll do it as quickly as we
12 can. And then you may ask any questions you want. And if
13 not, anybody else that has any other comments they'd like to
14 add or any other questions, feel free to ask them.

15 COURT REPORTER: We won't be using the podium for
16 this one?

17 MR. PALSO: No, we will not be needing the podium
18 for this.

19 So have you registered? Sir, did you sign in?

20 UNIDENTIFIED PARTICIPANT: Yes.

21 MR. PALSO: Okay. Great.

22 If you do make any statements please just state
23 your name and spell it out for the court reporter.

24 And we're taking comments, both spoken during
25 this meeting and written afterwards. Send it in to FERC.

1 We have on the scoping document it says how you can do it
2 online or in the mail, if you wish. And both written and
3 spoken comments have the same weight.

4 For these two projects the U.S. Army Corps of
5 Engineers is a cooperating agency with us. That means we
6 work with them to make -- to come up with the NEPA analysis
7 and the environmental analysis document. So we have an
8 agreement with them. We're free to communicate with each
9 other outside of public meetings for that.

10 This is our traditional licensing process that
11 Blue Heron Hydro has requested for the Townshend and Ball
12 Mountain projects. We're currently in the scoping document
13 stage. So this is where we come to collect public comments.
14 We'll take these comments and create environmental analysis
15 from them. Hopefully, you know, we plan to have that in
16 fall.

17 Oh. We have some more people showing up.

18 Have that in fall 2011. And then once that is
19 completed, the Commissioners at the Federal Energy
20 Regulatory Commission will make a decision on if their
21 licenses are given to them.

22 The purpose of the scoping process is to discuss
23 existing conditions and information pertaining to the
24 projects. We want to identify issues and alternatives.

25 We at FERC and the Corps have come up with what

1 we believe are some of the important environmental issues.
2 But we can't be sure of everything, so we come to get local
3 knowledge on this. So we come ask local people to let us
4 know what they think and if there are any other issues that
5 we need to explore.

6 I'll hand it off to the Corps to briefly describe
7 the two existing projects where Blue Heron proposes to
8 install their projects.

9 MR. WILLIAMS: I'm Bruce Williams. I work for
10 the Corps of Engineers out of the New England District
11 office. I'm glad to be here today to meet with everybody.

12 We were here earlier today for an agency meeting.
13 I'm the hydro power coordinator for the Corps so I know a
14 little bit about what we're doing here. And Nick has asked
15 me to basically just introduce the projects, what the Corps
16 does, what our role is.

17 We're here looking at two projects today, Ball
18 Mountain Dam and Townshend Lake. They're both on the West
19 River. Both projects, construction started several years
20 earlier, but it was completed in 1961. They do operate in
21 conjunction with each other as well as 12 other Corps of
22 Engineers flood control projects to control flooding on the
23 Connecticut River.

24 The Corps doesn't have any projects on the main
25 stem Connecticut, so we rely on flood control on the

1 tributary projects -- or tributary rivers. And these are
2 two of them.

3 We have three authorized project purposes: flood
4 control, recreation, and natural resource management, which
5 is what the Corps of Engineers does on the lands that we own
6 at these dams.

7 The first one we'll look at -- I don't know if
8 you've been up to the dams or not -- but we're looking at
9 Ball Mountain Dam. It's the northernmost dam on the
10 Connecticut River -- or on the West River, I'm sorry; 915
11 foot long, height of 265 foot; Pretty high dam. It's the
12 tallest dam that the Corps has in New England.

13 The elevation of the dam is about 1052 foot above
14 sea level. 235 foot spillway on the right abutment. You
15 can see it down on the bottom right-hand picture. The
16 spillway channel is on the -- to the left of the dam. It
17 has an 864 foot 13 foot diameter conduit that the water
18 goes through the dam. And the outlet channel that dumps
19 water back into the river.

20 Basically it's operated, there's three 5 foot 8
21 by ten foot flood control gates that are in the flood
22 control tower that sits out in the water. There's a small
23 permanent pool that's kept at 35 foot deep during the winter
24 months and we raise it up to a summer conservation pool of
25 65 foot basically starting in mid-June until the end of

1 September.

2 And there's pretty good storage there. You know,
3 it's a high dam. And the West River is a pretty flashy
4 river; it comes up quick. And we store water pretty
5 frequently at Ball Mountain Dam.

6 The next project that's being looked at for hydro
7 development is Townshend Dam which is downstream about 12
8 miles from Ball Mountain. It's basically wider and lower
9 than Ball Mountain, 1700 foot long. It's also an earth-
10 filled dam, height of 133 foot. You'll notice the elevation
11 is quite a bit lower; it's, you know, about half the
12 elevation of Ball Mountain.

13 It has a slightly different spillway arrangement,
14 a 439 foot long side channel spillway that you can see on
15 the photograph there on the left. It's to the left of the
16 flood control tower in the dam.

17 The intake tower is out -- it's the concrete
18 structure out in the middle of the dam. It's 360 foot long
19 channel that's 20 and a half foot in diameter and dumps the
20 water right back into the West River below the dam.

21 Just like Ball Mountain, there's three gates,
22 slightly larger: seven and a half foot by 17 foot flood
23 control gates. They're also in the intake tower.

24 The permanent pool at Townshend Lake is set by
25 the box weir that's at the intake channel. It's 21 foot

1 elevation. And, as you can see, it's slightly less storage
2 capacity than Ball Mountain Dam.

3 And unless there's any questions, that pretty
4 much describes the projects and what they're used for and
5 how long they've been there.

6 Thank you.

7 MR. PALSO: Okay.

8 And now if Lori would come up, we'll let her
9 explain her two projects.

10 MS. BARG: I'm Lori Barg, principal of Blue Heron
11 Hydro. And everybody except for you three were -- you're
12 the only new ones this evening. So feel free to ask any
13 questions if I go too fast here.

14 We started developing these projects three years
15 ago, and started doing it because I think this is some of
16 the best, most environmentally sound renewable power we can
17 get in the State of Vermont. We provide over three
18 megawatts of power at existing dams.

19 We're not proposing any changes to the dams.
20 We're proposing to use the water that's currently passing
21 through the dams to make renewable, carbon-free power,
22 enough for about 3000 homes.

23 The development of these projects helps to
24 potentially offset a \$70 million investment in transmission
25 upgrade between basically Grafton and Manchester, which is

1 called the southern loop.

2 Everybody talks renewable energy. But trying to
3 do this is really difficult. If anybody had told me that we
4 would be three years into this project and still be in the
5 licensing process I would say no wonder we don't have too
6 much hydro around. This is really tough. So we talk
7 renewables, but it's hard to do.

8 It's a small Vermont company; it's not some big
9 out of state company. And we've done this mostly with grant
10 support. I have worked for nothing for three years on this.
11 And we've gotten grant support from Central Vermont Public
12 Service, Vermont's Clean Energy Development Fund, and
13 through the American Recovery and Reinvestment Act.

14 One of the benefits from these projects besides
15 the renewable energy is that we anticipate that we would be
16 paying either taxes or a payment in lieu of taxes to the
17 towns, probably based on kilowatt hours of production
18 annually.

19 We think these projects actually are an
20 environmental benefit over existing conditions, particularly
21 at Ball Mountain. The surface passage will improve the
22 existing fish passage right now. Currently they have to
23 sound about 24 feet to pass down through the gates that are
24 open a foot or less, with surface passage they'll stay at
25 atmospheric pressure and just kind of be able to take a

1 water slide on down.

2 The Corps of Engineers has studied both of these
3 projects in the 1980s and determined that hydro was feasible
4 at both sites. And there's a copy of the most recent MOU up
5 there that's signed by Assistant Secretary JoEllen Darcy.
6 And the Corps is promoting the development of hydro using
7 non-federal partners at Corps of Engineers dams.

8 So we started in 2008. Last year we worked with
9 Alton Laboratories out of Holden, Massachusetts to develop
10 fish passage. I call it the snorkel design.

11 We've completed the interconnection with the
12 utility under the Public Service Board Rule 5.500. We're
13 getting into our seventh month now since we submitted our
14 application to FERC, our final license application. We
15 responded to deficiencies in January.

16 And this past month we made a request for
17 expedited consideration because unless these projects are
18 licensed by this fall, really, we are unlikely to be able to
19 afford to build them.

20 We're fortunate in that Vermont Agency of Natural
21 Resources issued 401 water quality certificates for both
22 these projects. And we support the conditions of the 401.
23 There's about 20 or so of them.

24 And in terms of sediment, which people have
25 raised as an issue, the Agency most recently is suggesting

1 that Ball Mountain -- West River below Ball Mountain brook
2 gets delisted for sediment because of the excellent
3 community conditions and the good fish.

4 And that picture down below is kind of a picture
5 of that snorkel fish passage system, the surface fish
6 passage system at -- I think that one is Townshend.

7 Recreation is an authorized purpose at both dams,
8 as is fish and wildlife. The recreational spring and fall
9 white water releases date back to the early 1960s. They've
10 done reports on this, the whitewater folks. It's
11 economically important.

12 There's also very few lakes in the region and
13 people love the beach at Townshend and, by it being a
14 project copying, you know, running the dams the way the
15 Corps has always run them, we anticipate no impact to any of
16 the recreational facilities.

17 So the design that we're using is a design that
18 the New England District of the Corps of Engineers is very
19 familiar with because it's been operating at one of their
20 dams in Colebrook, Connecticut for I think almost 25 years
21 at this point. And the same engineer, Henry Obermeyer that
22 designed and built Colebrook is building these modules.

23 And Colebrook was built after the Corps of
24 Engineers originally planned to kind of drill a hole through
25 the dam, put a powerhouse on the downstream side of the dam,

1 the typical hydro development. It was way too expensive and
2 they said, hey, can somebody come up with a better idea, and
3 Henry did. Basically it's an equipment installation.
4 You're lowering a six pack -- or your six pack, instead of
5 being the size of a coke can, is the size of a 55 gallon
6 drum down to the bottom of the reservoirs.

7 So this is a picture of Colebrook. You're
8 looking inside at the runner right now on the right-hand
9 side. So that's turning. On the left, Tim used to work
10 with Henry and has been running this project for 25 years.
11 Those are the generators on the right. About where Tim's
12 head is is where the runners are. And then to your right
13 there is the draft tube. So the water is passing from left
14 to right. And he's removed the fish screening so that he
15 could get in there to do maintenance on the turbines.

16 About four times -- the last time I talked to
17 Tim, in the last 25 years the Corps of Engineers has asked
18 them to be raised for flood control. And when they raise
19 them up they don't pull them completely; they've lifted them
20 above the level of the gates. So about 20 feet here. And
21 then they just lock them into the stoplog slots.

22 So these stoplog slots exist. And this is
23 Colebrook again, but they slide up and down in the stoplog
24 slots.

25 So they're submerged at the bottom of lakes.

1 You're not going to see or hear very much of anything. And
2 they're lifted with a hydraulic lifting system, which is
3 different than Colebrook, which has a custom-made crane on
4 top of the tower.

5 UNIDENTIFIED PARTICIPANT: Is that the same as
6 Colebrook?

7 MS. BARG: Colebrook is around three, I think.
8 It's about 80 feet deep. So, yeah. I'd have to look again;
9 I can't recall. I think -- maybe it's not -- I think those
10 are each like 550. Yeah, 3.3 maybe, yeah.

11 The electricity would be carried on the -- would
12 come up a conduit on the outside of the tower, go across the
13 service bridge, and go into a control building that's
14 proposed along the access road. And it would interconnect
15 with the existing three phase electrical distribution
16 system.

17 That's Ball Mountain three phase power on the
18 left and Townshend three phase power on the right. And you
19 can see those transformers on the right on the pole are
20 transforming the power for the intake at the existing intake
21 tower.

22 The authorized purposes of the Corps are primary.
23 As Bruce said, fish and wildlife, flood control, and
24 recreation. The FERC will license sets conditions. And
25 those conditions typically include that we need to establish

1 and sign memorandums of agreement with the Corps for
2 construction access and operations. And that will have to
3 be done after the license.

4 So this is where I'm scared and I'm worried
5 because after three years of working on these projects our
6 financing package -- nobody will finance these projects
7 unless we have FERC licenses in hand. So we need to have
8 the licenses issued this year, hopefully a couple months
9 before the end of the year so that we can have time to work
10 with the banks.

11 We have signed contracts with the State of
12 Vermont in something called the SPEED program, which is
13 designed to promote renewables. By the end of next year we
14 need to put the power on the grid.

15 So if all goes well, next summer we would install
16 the modules. This winter we would be building the modules.
17 And we have to start construction this year.
18 And this is why it's so critical that we get the licenses
19 and why we've asked for the expedited request for
20 consideration because there's something called 1603 and it's
21 a federal incentive that expires December 31st of this year.
22 And it requires that we start construction by the end of
23 this year.

24 And there's a lot of hoops you have to jump
25 through in terms of showing that you've actually spent the

1 money, too. It's not smoke and mirrors. It's a lot of
2 stuff.

3 So can this happen. If you go to FERC's website,
4 their small hydro website, they've issued licenses in as
5 little as six months. The Bowersock Mills Project, FERC
6 issued a license in August, four months after a letter of
7 understanding was signed by the Corps. And there's a copy
8 of the letter of understanding here that was signed in
9 February by the District. So if that was signed in February
10 and four months later, we'd have our license now.

11 So we're really hoping that we can get these FERC
12 licenses, you know, in the fall so that we can build these
13 projects.

14 So we're asking for your support. We have the
15 401 water quality certificates. We have an okay from the
16 State Historic Preservation Office.

17 This is my little Cinderella picture. We're
18 approaching midnight. These projects may turn into pumpkins
19 or they may be able to be built, benefiting us all for
20 decades into the future because these Corps of Engineers
21 dams are going to be here and if we can make power with the
22 water going through them I think we should.

23 And I would like us to be where Colebrook was 25
24 years ago. This is a picture of the Colebrook modules being
25 installed I think in 1984 or 1985. And I hope we get to be

1 doing the same next summer.

2 So that's it -- and not turn into a pumpkin.

3 MR. SHRIVER: I just have one question. I'm
4 Brian Shriver and I'm from Walpole, New Hampshire. And I'm
5 supposed to be an observer, but I'm asking a question.

6 Do these modules allow you to route water over
7 the top of the dam? And is that why you avoid some of the
8 construction costs normally associated with drilling through
9 the dam?

10 Those are intake modules, and then it--

11 MS. BARG: The way those dams are designed, the
12 water only goes over the -- I should let the Corps answer
13 this.

14 The water only goes over the dam when they have
15 to bring it to spillway elevation. At both of those dams
16 there's conduits, like Bruce explained, like a 21 foot at
17 Townshend and 13 and a half foot at Ball Mountain. And the
18 water goes through the dams at both those sites unless it's
19 a super flood, and then it goes over.

20 MR. SHRIVER: So what do these modules do? Do
21 they filter the intake water.

22 MS. BARG: No. They make power. It's the
23 generator --

24 MR. SHRIVER: Oh, that's the generator.

25 MS. BARG: That's the generator on the right-hand

1 side, which is submersible on this picture. The runner is
2 kind of in the middle, and the draft tube on the left.

3 MR. SHRIVER: Okay.

4 MS. BARG: So, you know, versus a typical hydro
5 where the generator is not submerged, these are submerged
6 generators.

7 MR. SHRIVER: I see.

8 MS. BARG: Yeah. So they're actually water-
9 tight.

10 It's not just your average 55 gallon drum; it's a
11 water-tight enclosure that's made for -- to be able to
12 handle pressures high enough that if the flow does go up to
13 spillway elevation they're not going to flood.

14 MR. PALSO: Okay. Thank you, Lori.

15 And now we'll take any questions or comments
16 members of the public or any of the agencies might have
17 regarding the issues. I think we covered many things this
18 afternoon and there aren't many people here, we won't go
19 down through each list of issues. But if anyone would like
20 to say anything please come up and we'll give you the mike.

21 (No response.)

22 MR. PALSO: Nobody? Okay. We'll move on.

23 Just wrapping up some important dates here.

24 Scoping comments, written comments to FERC are due on June
25 7th. Those can be either submitted electronically or by

1 mail.

2 FERC will then determine if a revised scoping
3 document is needed if we need to add additional information
4 to the scoping document based on what we've learned from the
5 scoping process.

6 Then we will have what we call the ready for
7 environmental analysis for the project in June. And that
8 means that we are ready to begin writing our environmental
9 analysis document.

10 Terms and conditions from agencies about what
11 they want to have in that environmental analysis will be in
12 August. And the environmental analysis should be completed
13 some time in the fall.

14 And we'll take any questions or additional
15 comments, if there are any.

16 (No response.)

17 MR. PALSO: No? Then I guess we adjourn the
18 meeting.

19 (Whereupon, the scoping meeting in the above-
20 entitled matter was adjourned.)

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