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UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION  
Division of Hydropower Licensing

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Columbia Gulf Transmission, LLC      Project P-2934  
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UPPER MECHANICVILLE PROJECT

Hilton Garden Inn  
Whitney-Travers Room  
30 Clifton Country Road  
Clifton Park, New York 12065  
Thursday, June 16, 2016

The public hearing, pursuant to notice, convened at 9:15  
a.m, before a Staff Panel:

JODY L. CALLIHAN, Ph.D., Environmental Project  
Manager

With:

JIM GIBSON, VP, Hydropower Services, HDR

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

2                   DR. CALLIHAN: Good morning, everyone. It's  
3 about ten after nine here, so we're going to go ahead and  
4 get started. For those of you who were not here last night,  
5 I'm Jody Callihan, a fish biologist at the Federal Energy  
6 Regulatory Commission and the Project Coordinator for the  
7 relicensing of the Upper Mechanicville Hydroelectric Project  
8 and we're here this morning to hold the agency scoping  
9 meeting for the project. I want to thank everyone for  
10 coming out.

11                   Yesterday morning we did the site visit, Tim and  
12 Steve Mullin arranged that and it was nice to see the site  
13 and all the facilities, so I want to thank them for holding  
14 and hosting the site visit. And to start off today, I'd  
15 like us to, everyone to go around the room and introduce  
16 yourselves. State your name, affiliation, and the entity  
17 that you represent. We'll start with our FERC staff from  
18 D.C. Headquarters.

19                   MR. CHOWDHURY; I'm Monir Chowdhury I am with the  
20 Federal Energy Regulatory Commission. I am an engineer and  
21 will be working in engineering and operations.

22                   MR. IVES: Good morning. I'm Hugh Ives,  
23 Directing Manager of Hydro Operations for NYSEG.

24                   MR. MULLIN: Good morning. Steve Mullin. Hydro  
25 License Coordinator for the Upper Mechanicville project

1 through NYSEG.

2 MS. HOWLAND: Carol Howland. Manager,  
3 Environmental for NYSEG.

4 MS. PUTNAM: Melanie Putman, Community Outreach  
5 Manager.

6 MR. GIBSON: Jim Gibson with HDR.

7 MS. CALEY: Katherine Caley with HDR.

8 MR. BRENNAN: Tim Brennan from NYSEG. I'm the  
9 hydro plant supervisor.

10 MS. CROUSE: Sita Crouse from NYDEC, I'm the  
11 project attorney.

12 MS. MAGEE: Beth Magee, DEC Region 5,  
13 Warrensburg, with the permits office.

14 MR. BLISS: Kevin Bliss, DEC Warrensburg; also  
15 Permits.

16 MR. PATCH: Steve Patch, U.S. Fish & Wildlife  
17 Service.

18 DR. CALLIHAN: Okay. Thanks, everyone for  
19 providing that. Just a few housekeeping items. We have a  
20 registration table in the back. If you haven't signed in  
21 yet, please do so. This is important so we get your numbers  
22 here and get your names spelled correctly in transcripts  
23 from the court reporter. There are also copies of the  
24 scoping document on the table, the registration table. If  
25 you haven't picked one up, go ahead and do so because that

1 will help you follow along in the presentation today, as  
2 I'll be referring to page numbers in that scoping document;  
3 and also some of the text that I present today will be taken  
4 directly from the scoping document, so if you're taking  
5 notes, that way you won't have to write everything down.

6           We have a court reporter with us, Dan Hawkins.  
7 All oral comments and presentations will be recorded and  
8 placed in the FERC public record.

9           An agenda of what we'll go over today and a  
10 little background on FERC and what we do. An overview of  
11 the licensing process. Talk about what scoping entails.  
12 And then Steve Mullin from NYSEG will give us an overview of  
13 the project, facilities and operations. I'll go over our  
14 preliminary list of resource issues that we've identified  
15 and intend to analyze in our environmental document, our  
16 NEPA document, our EA, environmental assessment.

17           And today I want to keep this pretty open and  
18 informal, so if at any point in the presentation you have  
19 questions or something's not clear or you want to expand on  
20 something, just raise your hand and let us know. We have a  
21 wireless mic here that we can pass around so the court  
22 reporter can hear you; and before you make a statement  
23 please say your name so we can attribute comments to you,  
24 and when we get to the resource issues I have a few  
25 questions for the resource agencies that are here today and

1 are the experts on the local resources in the area. To get  
2 some feedback from you as well.

3           So FERC, we're a federal agency located in  
4 Washington D.C. In addition to regulating the wholesale  
5 electricity market and the interstate transmission of  
6 natural gas, one thing that Congress has tasked us with is  
7 authorizing the construction, operation, and maintenance of  
8 non-federal hydroelectric projects that are in the public  
9 interest. Part 1 of the Federal Power Act gives us this  
10 jurisdiction.

11           In regards to the licensing process, the process,  
12 if followed correctly, if the project's deemed in the public  
13 interest by the Commission, ends with a license order. The  
14 license order contains terms and conditions for operation,  
15 for example, in the case of the Upper Mechanicville  
16 hydroelectric project, one term and condition is that the  
17 reservoir above the dam not exceed an elevation of 72.6 feet  
18 above mean sea level. The license order also contains the  
19 environmental protection, mitigation and enhancement  
20 measures.

21           An example of that which does not pertain  
22 specifically to the Upper Mechanicville project but more  
23 generally is that, say, the reservoir cannot fluctuate more  
24 than half a foot above or below that elevation, for  
25 instance, to prevent the desiccation of spawning beds or

1 flooding of shoreline communities.

2           But how do we get to that license order? It  
3 relies heavily on input from the stakeholders including  
4 state fish and wildlife agencies, water quality agencies,  
5 and today we're here to kick off the relicensing process for  
6 the Upper Mechanicville project for which the original  
7 license was issued in 1981 and expires the end of March  
8 2021.

9           So this is an overview of the Integrated  
10 Licensing Process which the Applicant chose to use for this  
11 project. We have the whole process here and one important  
12 milestone that we differentiate at FERC, so once the  
13 application is filed with the Commission, I refer to that as  
14 the post-filing period, but today I just want to focus on  
15 the pre-filing period for the applications filed.

16           The Applicant filed their NOI and Pre-Application  
17 Document back in March, and the scoping meetings, that's why  
18 we're here today, to get input on any environmental issues  
19 and concerns surrounding the project as well as to let you  
20 know how to make any study requests that you may have. I'll  
21 go into that a little bit later, how to file study requests  
22 with the Commission. And based on comments and study  
23 requests the Applicant will develop a study plan that will  
24 be approved by the Commission and then they'll conduct those  
25 studies to provide information that we'll use in our NEPA

1 environmental analysis, and prepare and file their  
2 application.

3           So what exactly is scoping? It's the process by  
4 which we identify issues and concerns surrounding a project  
5 from an environmental perspective; and a big part of that  
6 process is why we're here today, to gain input on any issues  
7 and concerns that agencies and the public may have.

8           So we need to think about the potential effects  
9 of the project on the aquatic, terrestrial, and human  
10 environment. And, what kind of information we need to  
11 better understand and analyze those project effects for the  
12 purposes of our NEPA analysis.

13           Sometimes for some resources, existing  
14 information is sufficient. And we ask that if you have any  
15 resource reports or survey data, or professional opinions  
16 that you think would help us analyze environmental effects  
17 in this license proceeding, we ask that you file those with  
18 us. But for other cases and resources, existing information  
19 may not be sufficient; we may need new information to  
20 analyze these project effects.

21           For instance, we may not have site-specific data  
22 or water quality conditions have changed at a site, for  
23 instance at the Hudson, the PCB contamination has been  
24 remediated or mitigated and it is better than it was in the  
25 70's and 80's. So we need new information, and this comes

1 in the form of study requests and these are due by July 15th  
2 of this year.

3           And again, at the end of the presentation I'll go  
4 into how to file those with the Commission, and go over the  
5 study plan criteria that those study requests must meet.

6           A few other things that scoping involves, we will  
7 identify and receive input on resources that may be  
8 cumulatively affected, so considering the effect of the  
9 project with other activities in the basin; for example,  
10 migratory fish may need to pass through potentially being  
11 entrained in multiple hydroelectric projects en route to  
12 their spawning grounds. Identifying any reasonable  
13 alternatives to the project and the applicant's proposed  
14 actions. Any recommended alternatives to project operation,  
15 for example. And also resources not requiring detailed  
16 analyses.

17           For example, projects that are in very industrial  
18 areas may have limited access, may have little aesthetic and  
19 recreational issues. So be thinking about these topics and  
20 any information gaps as we go through the presentation  
21 today.

22           And before I hand it over to Steve I just want to  
23 go over the specific resource groups that I've been  
24 referring to. So we have geology and soils, aquatic  
25 resources; this includes fish, mussels, water quantity,

1 water quality, terrestrial resources threatened and  
2 endangered species, recreational activities, land use,  
3 aesthetics, cultural resources and developmental resources.  
4 Developmental resources are basically those things that have  
5 an impact on the project's economics from the generation and  
6 costs.

7           So with that, I'm going to turn it over to Steve  
8 Mullin from NYSEG who will give an overview of the project  
9 facilities and operations.

10           MR. MULLIN: I'm Steve Mullin from the New York  
11 State Electric and Gas, I'm the Hydro License Coordinator  
12 for the Upper Mechanicville project. NYSEG is wholly-owned  
13 subsidiary of Avangrid, so you will see that name on our  
14 slides; and as I said, we are a wholly-owned subsidiary.

15           I'm here on behalf of NYSEG and I'd like to  
16 acknowledge FERC for giving us this opportunity to present  
17 some information on the operation and the overview of the  
18 plant. And also I'm here with other folks from NYSEG. We  
19 went through the introductions but I'd just like to  
20 recognize them again because they do have some input in this  
21 and I will ask them from time-to-time some questions.

22           Carol Howland is the Manager of Environmental  
23 Compliance, Environmental Compliance is the group I work in,  
24 and we're the lead on the project. Hugh Ives is here. He's  
25 with, he's a director on the Operations and Maintenance side

1 for hydro as well as substations and automations. Tim  
2 Brennan is the hydro supervisor, along with the substation  
3 supervisor, so he's hands-on in the plant. Melanie Putnam  
4 is here, she is our Community Outreach Manager for the  
5 region. And we also have two folks from HDR Engineering,  
6 Tim Gibson and Katherine Caley; they are supporting NYSEG on  
7 this relicensing effort. Thank you.

8           The overview of the presentation, I'll first  
9 present a few photographs to give you an overview of the  
10 project. We'll get into bullet points of discussion on the  
11 operation of the plant. Then we'll briefly go through the  
12 outline of the pre-application document. Then we'll touch  
13 on potential informational needs and studies that we've  
14 pointed out in the PAD. Recognize some rare, threatened,  
15 and endangered species and then we'll conclude with, for  
16 those of you who could not make the site visit, some more  
17 detailed photos of the plant that we walked around and saw  
18 on Wednesday morning.

19           So to begin with, the Upper Mechanicville project  
20 is located in two counties, Saratoga and Rennsselaer.  
21 Saratoga is on this side, Rennsselaer is here. It's also  
22 embodied within two towns and a city. In Saratoga it's in  
23 the town of Stillwater, and also there's a sliver of the  
24 project that's slightly within the city limits of  
25 Mechanicville. And then on the right side of the screen is

1 Rensselaer. It's also in the town of Schaghticoke.

2           This photo was intended to give you an overview  
3 of the project in its entirety. in the red circle is the  
4 dam, the powerhouse, and off to this -- this point of  
5 clarification what I'm going to refer to is north is up,  
6 south is down, the river is running from north to south.  
7 We've also called the left side, the east side of the river.  
8 On the east side we have the canal, Interstate Canal  
9 Corporation Lock C3 and it's part of the Champlain Canal.  
10 And then the yellow line represents what's referred to as  
11 the transmission line that runs from the plant into a  
12 substation up on Mulberry. Mulberry Street substation. And  
13 that gets the power into the grid. Point of reference, just  
14 upstream, there's a railroad and there's something to see  
15 here in the next photograph. That's what we call the east  
16 embankment.

17           So this is intended to give just a little closer  
18 view. The river is flowing from north to south. The intake  
19 or forebay area. Comes through the powerhouse, out the  
20 discharge, the dam, the lock, and then the transmission  
21 line. Transmission is technically going to be called a  
22 subtransmission line based on the voltage. It's 34,000,  
23 34.5 kb subtransmission line.

24           You might recognize that this photograph was  
25 taken off the Bing maps and this still shows some structures

1 here, these structures are gone today. I believe they were  
2 removed about two years ago. So, in the real life setting,  
3 this is vacant land right now.

4 One more just a little bit closer, just another  
5 view. Another view of the lock. Earthen embankment, east  
6 embankment. Powerhouse, tailrace, and forebay. The other  
7 feature here is the sluice gate. We did see that. The  
8 water from here, if we can't, if we're not running the  
9 plant, there would be some shallow water on this side.

10 And another look at where the powerhouse and the  
11 dam is located. Upper Mechanicville is in red on the  
12 screen. What this is trying to show is that the locks  
13 within proximity of our location, these numbers here  
14 represent a distance, river miles, DS is downstream, US is  
15 upstream. So down here is the Troy Lock, Waterford Lock,  
16 Lower Mechanicville, Upper Mechanicville, up here 27.1 miles  
17 to Fort Edwards.

18 Just a point of notice on this, from a hydro  
19 perspective, lock C1, there is no hydro there. The Thompson  
20 lock C5, no hydro, and up at Fort Edwards there's no hydro  
21 system.

22 I'm not going to spend a lot of time on this  
23 table, it's in the PAD, Table 4.2-1. This is very similar  
24 to the map. What also on this table is we show the  
25 coordinates, and the FERC project number if it's an active

1 FERC project.

2           Again, if you do have any questions, this is  
3 going to be interactive, so please feel free to ask them  
4 along the way. As we get into a little bit more down of the  
5 project overview, as Jody indicated in his slides, the  
6 license was originally issued in 1981. It's a forty year  
7 license set to expire March 31st  
8 , 2021. It has an  
9 authorized capacity of 18.5 megawatts. In the PAD we listed  
10 the annual generation for the past 11 years. The average  
11 comes out to about 93,625 megawatts. And to put that in  
12 perspective, to most of us that generates about enough power  
13 for 13,200 homes per year. The asterisk on that just  
14 references the source where we obtained the average  
15 residential use, and that was from the US Energy Information  
16 Administration from a 2014 survey.

16           As we've also said, the hydro facility is located  
17 on the New York State Canal Corporation's Lock C3 on the  
18 Champlain Canal Dam. The dam was originally built in 1882,  
19 we believe that was for industry in the area. The lock was  
20 originally built in 1908. And then as part of the license  
21 in 1981, the spillway was constructed in 1983 time period.

22           Obviously hydro does generate electricity but  
23 this plant also provides load balancing services for the  
24 need in the area. It does support navigation for vessels in  
25 the Lake Champlain Canal.

1           In terms of the dam and spillway, again Lock C2  
2 dam, it's owned by New York State Canal Corporation; under  
3 agreement we have to maintain it and operate it. It's 700  
4 foot long dam and approximately 19 feet high. It is gravity  
5 concrete dam. The spillway crest would be the top of the  
6 dam, and it's 66.6 feet above mean sea level. A little more  
7 detail on this, the spillway then is divided into three  
8 bays, each bay is 222 feet long which provides an effective  
9 spillway of 666 feet.

10           Each spillway is topped with a six foot high  
11 crest gate, we call it an Obermeyer pneumatic crest gate.  
12 That gets us an additional six feet or a mean sea level of  
13 72.6 and the Obermeyer pneumatic crest gate is bladders  
14 behind some steel gates that allows us to lower and raise  
15 the gates based on any need for navigation. Maybe I should  
16 clarify that, too: NYSEG doesn't adjust the dam; the height  
17 of water is based on navigation needs that the canal  
18 operator acknowledges with boat traffic.

19           We mentioned it does have an earthen embankment  
20 on the east side. Either on the right side or west side,  
21 what we call the abutment, which is really a concrete wall  
22 that separates the river from the land.

23           The powerhouse is owned and maintained by NYSEG.  
24 That was constructed in 1982 and '83 as part of the license.  
25 It's dimensions are roughly 150 feet by 122 feet long. It

1 is located on the right side, again, or the west side of the  
2 river. The intakes include trash racks with 6 inch clear  
3 spacing. And the powerhouse has two generating units, the  
4 manufacturer is Kaplan. Again, they have an authorized  
5 capacity of 18.5 megawatts rated at 19 feet of head. Those  
6 two units, when they are both in operation, the pass-through  
7 or what we call the hydraulic capacity, is 12,000 cfs.

8           The intake sluice gate. We did show that on that  
9 third photograph. That's located on the intake side of the  
10 powerhouse. That is a 20 foot wide by 7 feet tall. It has  
11 a silt elevation so that would be the bottom of the gate,  
12 66.5 feet; and that's used to mitigate ice build-up, or an  
13 ice-out as we call it in the spring. It's also used when  
14 the units are not in operation, we can allow a little bit of  
15 water to run through so we don't have stagnation there.  
16 It's also for some of the debris that comes down the river,  
17 we can shut it away. This would be stuff that we can't  
18 remove with our mechanical means. By debris, I mean sticks,  
19 logs, and vegetation.

20           The reservoir has a surface area of about 380  
21 square feet. It's about 1.8 miles in length. It extends  
22 from the dam up to just downstream of the Lock 4 and  
23 generally at the mouth of the Cusick River. It has a  
24 nominal surface elevation of 72.6 feet; that would be when  
25 the crest gates are up. Again, it is adjusted as required

1 to support the vessel traffic on the canal. In terms of the  
2 drainage area of the basin the Hudson is roughly 4,500  
3 square miles.

4 In terms of that transmission line we've  
5 identified, it's part of the project, 1.1 miles long. It is  
6 34.5 feet deep. That interconnects at the Mulberry Street  
7 substation in the town of Stillwater. That right-of-way  
8 falls into the vegetation management program of the company,  
9 like any other transmission or distribution line we have.

10 In terms of recreation, the project does support  
11 recreational boating through the canal system, and it's been  
12 historically exempt from the FERC Form 80 recreational  
13 surveys. While allowing recreational boating it does  
14 support commercial vessels, too.

15 The project is located outside the New York State  
16 coastal zone. And for those interested in history, the Lock  
17 C3 dam is listed as the only contributing resource to the  
18 New York State City Barge Canal historic district within  
19 1000 feet of the project proposed area of potential effect -  
20 - sometimes you hear that as 'APE.'

21 So, a little bit on project operations. The  
22 project is operated on a run-of-river basis, but it supports  
23 navigation; so the reservoir levels are adjusted as  
24 requested by the New York State Canal Corporation lock  
25 operator. Typically the traffic through the canal system is

1 May 1st  
through November 15th  
, that would be the navigation  
2 season and that does vary a little bit, so we support  
3 whatever they need.

4           Again, the reservoir is lowered to allow taller  
5 vessels to pass under -- if you recall, there are railroad  
6 trestle or bridges upstream, it does have some height  
7 limitations though the reservoir is lowered to support  
8 smaller vessels. Typically the reservoir elevation ranges  
9 between 50 and 72 inches. That's a reference to crest of  
10 dam during navigation season. Less frequently it is lowered  
11 to 30 inches, but it all depends on the vessel coming up and  
12 down the river. In the wintertime, the reservoir maintained  
13 at the 72 inches above crest.

14           This table is also in the PAD, it's Table 4.4-2  
15 and what we're showing here is the flows that we've somewhat  
16 prorated at the dam. I always stumble on this, so Jim if  
17 you just want to explain how you do that. Jim?

18           MR. GIBSON: Sure. What we did in order to take  
19 a look at the hydrology in this segment of the river, there  
20 is a USGS gauge just downstream, approximately 6 miles from  
21 the project near C1. When you look at the overall area of  
22 the watershed, the difference between that USGS gauge and  
23 where the Upper Mechanicville project is, the difference is  
24 about 105 square miles.

25           So we just prorated from there. It's about 98

1 percent. And that's the flow data that was used, not only  
2 to create this table but when you look at the pre-  
3 application document, I believe it's exhibit F, we have the  
4 flow duration curves. We have an annual flow duration curve  
5 and then we have a curve for each month. So that's where  
6 these numbers come from. And we feel like we have a pretty  
7 robust dataset looking at about 38 years of flow data.

8 MR. MULLIN: Thank you. Any questions for Jim?

9 We're now going to get into the pre-application  
10 document. We'll get into the details and I think it's  
11 prudent for me to tell you that everything we presented  
12 during the presentation here with the exception of the  
13 photographs, are in the PAD. We did distribute the PAD on  
14 March 30th  
15 , 2016. It does provide comprehensive overview of  
16 the existing information available to the project's power  
17 and non-power resources.

18 The outline follows the section 1 as the  
19 introduction background. Section 2 is the purpose of the  
20 application document. Section 3 does present a process plan  
21 and schedule, and it's important to note here that we made  
22 some assumptions on the dates in there, but the schedule and  
23 plan that Jody, that FERC submitted in their Scoping  
24 Document 1 is the one we will be following. The dates vary  
25 by a little bit but just be aware that it's the planned  
schedule in Scoping Document 1 that we will be following.

1           Then we will get into project location in Section  
2 4, facilities, a little bit more detail on operations.  
3 Section 5 is a description of existing environment and  
4 resource impacts. Section 6 discusses preliminary issues,  
5 project effects we intend to study. And then 7 would be  
6 comprehensive plans. Section 8 would be literature. We  
7 haven't decided on appendices.

8           Hopefully you've received a copy; if not we can  
9 get you one. In terms of potential studies of information  
10 needs, through the process we searched hard for available  
11 documents open to the public that we could research. We  
12 thought that with the work that GE has recently done,  
13 somewhere there would be temporary studies. There's a  
14 pretty good dataset as well as some other references that we  
15 were able to dig up.

16           Our thought is to attempt the studies in  
17 consultation with the agencies may include water quality,  
18 temperature, dissolved oxygen; and then rare, threatened, or  
19 endangered species: there is an eagle, its nest that we know  
20 of just down maybe an eight of a mile or so from the dam.

21           To the extent we felt that there were extensive  
22 studies represented the upstream and downstream area in  
23 terms of PCBs, General Electric; aquatic resources, fish and  
24 the benthic micro-invertebrates noted at the time of the  
25 surveys.

1           A little bit about rare, threatened, and  
2 endangered species. Through the federal list that we've  
3 obtained through the United States Fish & Wildlife Services,  
4 the northern long-eared bat is threatened; then from the  
5 state list, obtained from New York State Department of  
6 Environmental Conservation, their Natural Heritage Program,  
7 a bald eagle, threatened, and then two plants we've noted as  
8 rare, the Davis's Sedge and the Mock Pennyroyal. They have  
9 been historically documented up at the Lock C4, within a  
10 half mile upstream of the dam. The Davis's Sedge is a  
11 densely clumped perennial grasslike plant that prefers wet,  
12 seasonally flooded areas; whereas the Mock Pennyroyal is  
13 more of an aromatic from the herb family, and it likes a dry  
14 environment. Those are all detailed in Section 5 of the  
15 PAD.

16           So I'll conclude with a few photographs, these  
17 are photographs that if you were on the site visit you  
18 really got to take a look at. So we're going to look  
19 through a few here. I can just stand off to the side since  
20 there's a little light on my screen here. So, we are  
21 looking in this photograph, the river flowing from the top  
22 of the picture down, we're on the west side, or the right  
23 side of the river. Around the forebay area, the powerhouse  
24 would be about here.

25           What you see here is the forebay. A little bit

1 closer the powerhouse is right here. The intake of the  
2 water would come in this area near the plant and the sluice  
3 gate is off to the side here, the dam would be going this  
4 way. And another view of the sluice gate in the forebay  
5 area. So what we have here in the background you can see  
6 the dam, this would be the forebay area or intake area where  
7 water is coming into the plant, and this is the sluice gate  
8 that we referred to.

9           So this view would be standing on the east side  
10 of the powerhouse looking at the dam. And what we want to  
11 show on this photograph here is this is the crest gate, and  
12 these are the pneumatic bladders that raise and lower the  
13 crest gate. The spillway would be here. And the lock  
14 approach wall would be here, so the river flow is from left  
15 to right.

16           This view is the downstream side of the  
17 powerhouse. The powerhouse and the dam, the spillway will  
18 be over here, and the flow is coming towards us, down the  
19 tailrace and back into the river. And though you can't see  
20 it here, there is a stack gauge and this helps us monitor  
21 river elevation on the backside of the powerhouse.

22           This is a little bit closer view of the  
23 discharge, we have two turbines, so flow will come out this  
24 bay and that bay for one of them. The second unit will slow  
25 out here, the flow is going out the tailrace. And the

1 gauge.

2           Lastly on the backside of the powerhouse, here's  
3 the tailrace and it's about 1,200 feet long, where the flow  
4 enters back into the river. This is the property downstream  
5 which I've stated is no longer there.

6           This view now is we're standing next to the  
7 powerhouse and we're looking east, you can slightly see the  
8 dam and spillway structure right here, and this is just to  
9 show when the flow is through the powerhouse and there's no  
10 spillage, this is what the river looks like; you can see  
11 exposed rock. It generally stays wet, but it's shallow.

12           And lastly, two pictures from the interior of the  
13 powerhouse. This is a door on the west side, we're looking  
14 in this photograph from that door into the plant this way.  
15 These square structures are where the turbines are. There's  
16 a mezzanine level up here that contains electrical  
17 equipment, in our control room. And then if you're standing  
18 up in this area and you're looking back towards the garage  
19 door, you can see the top of the turbines from here and  
20 here. And that's generally what you see in the powerhouse  
21 when you walk in.

22           With that, again, I am Steve Mullin, Hydro  
23 License Coordinator for the project. If you do have any  
24 questions, if you want to get back to us about please feel  
25 free to send me a letter, call, email, anything that I get,

1 questions we need to respond to, I will share with the FERC.  
2 With that, thank you for your time. And as Jody said, we're  
3 here for any questions.

4 DR. CALLIHAN: Thanks, Steve, for that project  
5 overview. Now we're going to go into some of the, our  
6 preliminary list of resource issues, and these are listed on  
7 page 14 of the scoping document, if you'd like to follow  
8 along. And as we go through these I ask please let us know  
9 if you have any additional issues or concerns that you would  
10 like to raise. And if there's anything that we've  
11 identified that you disagree with, we'd like to hear that as  
12 well and your reasons why.

13 So in terms of geology and soils, I will be  
14 considering the effects of continued project operation and  
15 maintenance on geology and soils. Aquatic resources, I'll  
16 note that after this line I have a few questions for the  
17 audience and the agencies but I'll just go through these  
18 first. We'll be looking at entrainment and impingement  
19 mortality of American eels, and this will be a cumulative  
20 analysis because mature silver eels that need to out-migrate  
21 through the Hudson river to reach their oceanic spawning  
22 grounds in the Sargasso Sea, have to pass multiple  
23 hydroelectric projects including Upper Mechanicville and  
24 maybe exposed to entrainment mortality.

25 We'll also be discussing the entrainment-

1 impingement mortality of resident fishes including Walleye,  
2 small mouth and large mouth bass. As well as the effects of  
3 continued project operation on water quality including PCB  
4 contamination and navigation.

5           So the first thing I'd like to discuss and get  
6 into a bit is eel distribution in the upper Hudson River.  
7 Here we have a schematic, and these red dots just show rough  
8 location of some hydro plants. What we're looking for from  
9 you all is the feedback on the distribution of eels in this  
10 region. We are defining the geographic scope of our  
11 cumulative effects analysis of analysis of  
12 entrainment/impingement mortality.

13           So, in other words, from what hydro plant to what  
14 hydro plant would we expect eels to be common, clearly for  
15 our project to have an effect, eels to be present upstream  
16 of the project. So, my first question, if anybody has any  
17 insight on the upstream extent of eels in the Hudson River.  
18 What's a reasonable cutoff point upstream beyond which they  
19 are rare? And does anyone have any feedback or any input on  
20 that for us?

21           MR. PATCH: I know they're not present above  
22 Curtis Palmer because we've been studying up there. But  
23 between there and Fort Edward, I'm not sure.

24           DR. CALLIHAN: Okay.

25           MR. IVES: Yes, it's kind of tough to see from

1 this map but we've, where Steve is referring to, there have  
2 been studies up at Curtis Palmer and Aspire projects and  
3 they have not been found in those impoundments; but the  
4 Upper Mechanicville project right here and they have been  
5 noted upstream of the Stillwater project. They have  
6 collected there in entrainment studies, so we expect them in  
7 Mechanicville; and there's a series of locks and dams that,  
8 they provide passage up to the river up to Fort Miller, and  
9 that's where we've included the cutoff for our analysis.  
10 There's no longer, the dam's been removed at Fort Edwards,  
11 so we've included our upstream geographics at Fort Miller  
12 preliminarily for our analysis. What we determine the  
13 geographic scope from the Fort Miller project down to the  
14 federal dam in Troy.

15 MR. PATCH: Also the Green Island project will be  
16 installing eel ladders at some point. The actual date is  
17 still under discussion, so that would potentially mean more  
18 eels coming up.

19 DR. CALLIHAN: Steve, do we know about what that  
20 date is?

21 MR. PATCH: Well, their schedule is way behind  
22 for a variety of reasons. We're focusing on the fish  
23 protection downstream passage this year and next, and we're  
24 in discussions with them about when to put the upstream  
25 passage in. They want to wait a long time, until they

1 finish all the construction and upgrades and the agencies  
2 want them to do it sooner so that's being negotiated but  
3 there's been no final decision yet.

4 DR. CALLIHAN: And once again, early in the  
5 process but do you think it could happen before this license  
6 is issued?

7 MR. PATCH: Yes.

8 DR. CALLIHAN: Okay. All right, any more  
9 comments on eel distribution?

10 MR. MULLIN: One other question there: do we know  
11 what's happening at the C1, where there is no hydro, how  
12 eels are moving through that? Through that facility.

13 MR. PATCH: There's not any hydro out there.

14 DR. CALLIHAN: So just through the lock? Okay.

15 MR. PATCH: There's no hydro so there's no fish  
16 passage facilities at C1.

17 MR. MULLIN: Two of the sites where you  
18 mentioned no hydro the one that, Thompson, both of those  
19 have permits and I believe Thompson had actually filed an  
20 application but it's on hold because of PCBs. So  
21 potentially at some point in the next few years there could  
22 be hydro.

23 MR. PATCH: Yes, there's some plans in place for  
24 permits for all of them, the Waterford, Thompson because of  
25 PCBs.

1           DR. CALLIHAN: So another question I had when  
2 thinking about this, how eels can find their way to  
3 different parts of the river. I don't know if you are  
4 familiar with the Glenn Falls feeder canal; so a question I  
5 have, I have a slide on this showing where that is; but my  
6 two questions are: is that a viable passage route for eels  
7 and for instance, another question would be thinking of, we  
8 have eels coming up through the New York City Area, the  
9 Battery, the lower end of the Hudson but, they could come in  
10 from the St. Lawrence River, too; and could eels coming in  
11 from the St. Lawrence possibly get above the Hudson Falls  
12 area there through that feeder canal?

13           MR. GIBSON: So what we have here in this area in  
14 red, this dark red line, shows the feeder canal. Here's  
15 Fort Edward, down here is Fort Nauder. So technically if  
16 this were a viable passage route, eels coming up through the  
17 locks. Here's where the Champlain canal kind of peels off  
18 of the main stem of the Hudson, so the eels could come up  
19 the canal here through the locks. And this in red is the  
20 very narrow feeder canal; this is the stair portion here is  
21 five plates I believe. And that's about five to seven miles  
22 and it runs just north of Glenn Falls. This provides water  
23 for the canal, so theoretically the eels could use this as a  
24 passage to move upstream of the various hydro projects  
25 involved, the Hudson Falls.

1           So does anyone have some input on the  
2 characteristics of that canal and whether it's feasible for  
3 eels getting through there? Or what they know about the  
4 area.

5           MR. PATCH: Not really. I suppose you could say,  
6 yes, it's feasible but whether they could get through or not  
7 I don't know.

8           MR. GIBSON: There haven't been a lot of surveys  
9 in that region, there's kind of a gap. You know, they have  
10 at Curtis Palmer, Aspire falls.

11          MR. PATCH: I guess you could go back to the  
12 licensing in the early 90's on the other projects in the  
13 area and see if they had eels entrained there.

14          MR. GIBSON: I looked at those and there wasn't a  
15 lot of useful info.

16          DR. CALLIHAN: Now moving on from eels, a couple  
17 questions, other aquatics questions; eels are cadrenous, but  
18 other anadromous fishes in the project vicinity seem pretty  
19 rare, talking about river herring, shad, striped bass,  
20 species that spawn in freshwater as opposed to in the ocean;  
21 but to me these seem from what I've seen seem pretty rare in  
22 the vicinity of the project. They are probably less likely  
23 to move through the locks than eels are. Would anyone like  
24 to comment on that that they agree or disagree that  
25 anadromous fishes are relatively rare in the section of the

1 Hudson that we're talking about in Upper Mechanicville?

2 MR. PATCH: Yes, they are definitely rare now  
3 that they are going through the Mohawk River through that  
4 lock system; but again Green Island is supposed to put up  
5 some passage facilities so that there will be more fish  
6 coming up in the future.

7 MR. GIBSON: So Green Island, eel ladder plus  
8 fish passage?

9 MR. PATCH: They're supposed to put in three eel  
10 ladders and two fishways for herring and shad.

11 DR. CALLIHAN: Okay, Steve going back to that  
12 topic then. Could happen in the next five years, do you  
13 know about when it will be known when it happens? Is there a  
14 settlement agreement? Is there something that's going to pin  
15 down one of those dates?

16 MR. MULLIN: Most of the settlement agreement  
17 seems to have gone by the way already. And the last we  
18 heard, FERC basically told them to work it out with the  
19 agencies. Then FERC will approve whatever we agree to. If  
20 we can't reach an agreement then at some point FERC's going  
21 to have to step in and make a decision. So I would think, I  
22 would hope in the next year we would have a schedule for  
23 what's going to happen when. But as I said we're doing the  
24 downstream passage this year, next year so 2018 would be the  
25 absolute earliest they would start that.

1           MR. GIBSON:    And I assume these species would  
2 then have to get over C1 where there's no hydro.  And Lower  
3 Mechanicville.  The two projects where there are no upstream  
4 passage structures?  Okay.

5           DR. CALLIHAN:  Any more on anadromous fish?

6           MR. GIBSON:  We're thinking now about more site  
7 specific questions with the project impoundment.  Are there  
8 any known spawning beds, and activities in that Upper  
9 Mechanicville that reservoir fluctuations may impact?  Small  
10 mouth, large mouth?

11          MR. PATCH:  I'd have to defer the DEC fishery  
12 folks, who are not here today.

13          MR. GIBSON:  Okay.  That needs to be fleshed out  
14 through meeting with the agencies.

15                 Any stacking activities in the project vicinity  
16 that we are aware of?

17          DR. CALLIHAN:  Moving on to the mussels.  I saw  
18 in the PAD that, it said there were limited, was limited  
19 information on mussels in the project vicinity so does that  
20 mean that surveys have been done and they have not been  
21 found, or have surveys not been done?  Maybe just to clarify  
22 that on what we know about freshwater mussels and other  
23 mussel species in the area.

24          MR. MULLIN:  As part of the GE work it seems like  
25 they had done a fair amount of mussel and benthic surveys

1 and we're not finding them in Palmer.

2 MR. PATCH: What about the tailrace downstream?

3 MR. MULLIN: I think tailrace was the same.

4 MR. PATCH: So, zero or few.

5 MR. MULLIN: We can get more detail on that.

6 MR. PATCH: Yes, that would be great.

7 DR. CALLIHAN: Any more on mussels?

8 Okay, now moving into PCB contaminations. It's  
9 my understanding that the GE clean up efforts through  
10 dredging had been completed recently, I believe in 2015.  
11 There was a hot spot identified upstream of the dam that had  
12 been remedied with a direction cap, so one question I have  
13 is what plans do you know of for PCB monitoring in this  
14 section of the Hudson, specifically in the vicinity of the  
15 project? Who will be doing that? Where will it occur? And  
16 the frequency and when it will occur? If anyone has any  
17 input on those, the PCB monitoring plans in the vicinity of  
18 the project.

19 MS. MAGEE: My name is Beth Magee, I'm with the  
20 DEC. I'm in mediation. Staff has information on that, I  
21 don't have it today. But I will get in touch with them and  
22 contact you.

23 MR. PATCH: So do we know who will be the lead  
24 monitoring? Will that be GE or? So there will be data  
25 available in the future on the PCB on site, probably?

1 MS. MAGEE: I would think so. The monitoring  
2 would likely be done by GE.

3 DR. CALLIHAN: Does anyone else have any  
4 comments on PCBs?

5 MR. MULLIN: The one other thing I will add is,  
6 what we found was, given the project was built in the  
7 1980's, like Steve said '82, '83 time frame, at the time  
8 they had to do a fair amount of study on both navigation and  
9 PCBs. So there was a fair amount of flow studies performed  
10 on how the project would affect navigation. Hence the way  
11 the project was designed.

12 And then there was a fair amount of study that  
13 was performed on scour and how the project could effect  
14 PCBs. We felt comfortable as we were preparing the PAD, not  
15 only did the project address potential effects of PCBs, when  
16 it was built in '81, '82, '83 timeframe, we felt that as  
17 you, then GE went out and did clean up, PCBs essentially  
18 became a non-issue. Obviously we're going to have to go  
19 through the consultation process to determine that, but felt  
20 pretty comfortable that the '82, '83 studies in combination  
21 with what GE is doing, it didn't look like the project would  
22 have an effect on PCBs.

23 DR. CALLIHAN: Anything else?

24 Okay we're going to move into some other resource  
25 areas now; I don't have any major discussion points for

1 those so we're just going to kind of breeze through these.  
2 Terrestrial resources. As Steve mentioned he was just  
3 downstream of the project half a mile or so be looking at  
4 effects of continued project maintenance on species of  
5 special concern including the Bald Eagle, the two plant  
6 species, Davis's Sedge and Mock Pennyroyal, spread the  
7 introduction of invasive plants and wetland habitat and  
8 wildlife and botanical resources.

9           In terms of threatened and endangered species,  
10 Steve mentioned federally threatened Northern Long-Eared  
11 bat, looking at potential project effects on that species.  
12 Any need for recreation at the project and the effect of  
13 continuing project operation and maintenance on land use and  
14 aesthetic resources. Cultural resources and effects on  
15 historic properties and archaeological resources. And the  
16 effects of any recommended environmental measures on the  
17 project economics.

18           So does anyone have any questions or comments on  
19 these last few resource groups?

20           (No response.)

21           Okay. Moving into the next steps for the  
22 licensing process. The study requests are due by July 15th  
23 and you can eFile those with the Commission if you prefer  
24 efilings but you can also provide hard-copies if you so wish  
25 and there are filing instructions contained in the scoping

1 document. And one important thing when making a study  
2 request is that it meet each of the seven study plan  
3 criteria. There's a list here. Identifying study goals and  
4 objectives. Explained all of the resource agents financial  
5 goals, the relevancy of the study to public interest, and  
6 describing and putting the study into context in terms of  
7 the existing information that is out there. Explaining the  
8 nexus of the project operations and the effects needing to  
9 be studied. Study methodology is consistent with accepted  
10 practices and also describing the level of effort and cost  
11 and why alternative studies would not suffice.

12 Does anyone have any questions on these?

13 (No response.)

14 Okay, and after the study requests come in, the  
15 Applicant will use those and will put together a proposed  
16 study plan that will be due by August 29 of this year, and  
17 the detailed schedule of all pre-filing activities and  
18 deadlines is in Appendix B, the clear back of your scoping  
19 document. And then the Applicant will hold a proposed study  
20 plan meeting by September 28th  
2016, and there they will  
21 present and discuss their proposed study plan with  
22 stakeholders. And there will be a comment period for that  
23 and then we'll have, they will prepare a revised study plan,  
24 there will be a comment period on that, and then they'll  
25 submit that to the Commission for approval and we will

1 evaluate the information and issue our study plan  
2 determination.

3           So, a few things on how you can keep in the loop  
4 with the project proceeding. Our FERC online system. We  
5 have various electronic resources. There's a brochure in  
6 the back on these as well, if you would like to pick that  
7 up. Any time you're entering, trying to track information  
8 for this project you want to enter the Docket number P-2934.  
9 eSubscription is a handy tool; basically any time a document  
10 is filed or issued by the Commission in relation to this  
11 project, if you eSubscribed to it you will receive an email  
12 notification of that document and it will provide you a link  
13 to our eLibrary system and you can access the document or  
14 choose to download it if you wish.

15           The eLibrary contains all public documents on the  
16 project back to about the early 1990's where you can access  
17 from there if you want to learn a little bit about the  
18 history of the project or recent filings or issuances.  
19 Finally, the mailing list is something that you have to  
20 request to be added to, instructions on page 23 of the  
21 scoping document and if you're on the mailing list you will  
22 receive hard copies of all issuances. So with that, I'd  
23 like to open it up to any questions or comments that you  
24 have. Anyone?

25           MR. IVES: I have a question regarding the

1 scheduling of the -- you mentioned study plan due for July?

2 DR. CALLIHAN: Yes.

3 MR. IVES: To FERC. And then we have provided a  
4 proposed study plan by August 29th?

5 DR. CALLIHAN: Yes.

6 MR. IVES: So will you issue a summary document  
7 to us between those two dates, July 15th and August 29th?  
8 These are all the comments, these the proposed studies -- or  
9 how does that work?

10 DR. CALLIHAN: We will not distribute the site  
11 plan determination is when we put all the comments and study  
12 requests together before a final determination. But we will  
13 be either calling into or attending the proposed study plan  
14 meeting. So we'll be there for support.

15 MR. CHOWDHURY: And after you file the study  
16 plan, stakeholders will have an opportunity to comment; and  
17 then a revised study plan and more comments; and then we  
18 would make a determination of studies to be done.

19 MR. PATCH: Oh, one item just maybe housekeeping.  
20 Under section 10 A of the Federal Power Act, we did list  
21 five comprehensive plans that we think are applicable to the  
22 project.

23 As we indicated in the pre-application document,  
24 two of those plans we've been unable to find. Normally we  
25 can find them pretty regularly. One is a DEC plan, it's on

1 page 22 of the scoping document. It's a 1979 plan called  
2 the Hudson River Basin Water and Related Land Resources  
3 Level B study report. Once again we've done a pretty  
4 comprehensive search for that, Jody as we mentioned; if FERC  
5 has a copy it would be great to get a copy or if the DEC has  
6 a copy, it would be nice to get a copy. We're also trying  
7 to.

8 MS. MAGEE: -- have one? [Hammering in  
9 background]

10 MR. PATCH: The other one, if anyone has a copy,  
11 we are trying to track down the 1923 General Plan for the  
12 Regulation of Flow in the Hudson River and Certain of Its  
13 Tributaries. Produced by the State of New York Hudson River  
14 Regulating District. Once again it is a FERC-recognized  
15 plan under Section 10 A. We have not been able to locate a  
16 copy.

17 MR. MULLIN: Did you check with the Hudson River  
18 -- District?

19 MR. PATCH: Yes.

20 MR. MULLIN: They didn't have one?

21 MR. PATCH: No. We have pointed to another  
22 consultant who they thought might have a copy, and no luck  
23 there either. So, just one of those two things we need.  
24 Two documents we want to find just to meet our 10A  
25 requirements.

1 DR. CALLIHAN: Anything else we need to go over?

2 MS. PUTNAM: I don't think so we have some  
3 comments that we're going through and a lot of them you've  
4 talked about so. And I'll go back to the office and sit  
5 down and get that information for you.

6 DR. CALLIHAN: Okay, thank you. Yes?

7 MR. BLISS: Kevin Bliss. NYSDEC. I tried to  
8 make notes and I'm sure Beth did and did a better job, of  
9 your questions. But to be sure we do a good job trying to  
10 get answers to for the questions you raised today do you  
11 have something that you can hand us that is your questions?

12 MR. MULLIN: The transcripts will soon become  
13 available for the meeting as well and you'll have those.  
14 Yes, I can email those to you.

15 MR. BLISS: That might be helpful. Thank you.

16 MR. PATCH: Send those to me as well.

17 MR. MULLIN: Jody, will it be possible that  
18 everyone attending the meeting today will get a copy?

19 DR. CALLIHAN: Yes, I can send that out to them.

20 Okay. Anything else?

21 Okay with that, I'd like to close the meeting and  
22 thanks again everyone for coming and have a good rest of  
23 your day. Safe travels. Thanks.

24 (Whereupon, at 10:15 a.m., the scoping meeting  
25 concluded.)

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CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceeding  
before the FEDERAL ENERGY REGULATORY COMMISSION in the  
Matter of:

Name of Proceeding:

UPPER MECHANICVILLE PROJECT

Docket No.: P-2934

Place: Clifton Park, NY

Date: 6/16/2016

were held as herein appears, and that this is the original  
transcript thereof for the file of the Federal Energy  
Regulatory Commission, and is a full correct transcripton of  
the proceedings.

DANIEL HAWKINS

Official Reporter