1 STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 2 AND MAINE LAND USE PLANNING COMMISSION 3 4 IN THE MATTER OF CENTRAL MAINE POWER COMPANY'S 5 NEW ENGLAND CLEAN ENERGY CONNECT PROJECT 6 7 NATURAL RESOURCES PROTECTION ACT SITE LOCATION OF DEVELOPMENT ACT 8 SITE LAW CERTIFICATION 9 10 HEARING - DAY 1 MONDAY, APRIL 1, 2019 11 12 PRESIDING OFFICER: SUSANNE MILLER 13 14 Reported by Robin J. Dostie, a Notary Public and 15 court reporter in and for the State of Maine, on 16 April 1, 2019, at the University of Maine at Farmington Campus, 111 South Street, Farmington, 17 18 Maine, commencing at 8:00 a.m. 19 20 REPRESENTING DEP: 21 GERALD REID, COMMISSIONER, DEP 22 PEGGY BENSINGER, OFFICE OF THE MAINE ATTORNEY GENERAL 23 JAMES BEYER, REGIONAL LICENSING & COMPLIANCE MGR, DEP 24 MARK STEBBINS, DIRECTOR, BUREAU OF LAND RESOURCES 25

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1	TRANSCRIPT OF PROCEEDINGS
2	MS. MILLER: Good morning. I now call to
3	order this joint public hearing of the Maine
4	Department of Environmental Protection and the Land
5	Use Planning Commission on the New England Clean
б	Energy Connect project. This hearing is to gather
7	evidence to evaluate the application submitted by
8	Central Maine Power pursuant to the Department's
9	requirements under the Natural Resources Protection
10	Act and the Site Location of Development Act as well
11	as the Commission's Site Law Certification process.
12	The permit application is for the
13	construction of a new high voltage direct current
14	transmission line that would run from the Maine
15	border with Quebec to a new converter station in
16	Lewiston as well as additional construction on a
17	separate line in parts of southern Maine. The
18	purpose of the New England Clean Energy Connect line
19	would be to deliver up too 1,200 megawatts of
20	electricity from hydropower generating facilities in
21	Quebec, Canada to the New England Power grid.
22	Portions of the proposed project would be in
23	the following municipalities: Alna, Anson, Caratunk,
24	Chesterville, Cumberland, Durham, Embden, Farmington,
25	Greene, Industry, Jay, Leeds, Lewiston, Livermore

Falls, Moscow, New Gloucester, New Sharon, Pownal,
 Starks, Whitefield, Wilton, Windsor, Wiscasset and
 Woolwich.

In addition, the proposed project would 4 5 traverse townships and plantations including: 6 Appleton Township, Bald Mountain Township, Beattie 7 Township, Bradstreet Township, Concord Township, Hobbstown Township, Johnson Mountain Township, 8 Lowelltown Township, Merrill Strip Township, Moxie 9 Gore, Parlin Pond Township, Skinner Township, T5 R7 10 11 BKP WKR and West Forks Plantation.

Portions of the proposed project would also
abut the boundaries of T5 R6 BKP WKR (Haynestown),
The Forks Plantation and Pleasant Ridge Plantation.

15 The purpose of this public hearing is to receive testimony from the parties and the general 16 public on whether the proposed project meets the 17 18 requirements of the Natural Resources Protection Act and Site Location of Development Act and whether the 19 project meets the requirements for Site Law 20 Certification by the commission. The hearing will be 21 22 conducted jointly by the Department and Commission. 23 The Commission portion of the hearing will take place on Tuesday, April 2 starting at 10:30 in the morning 24 25 and will end after public testimony is received that

same evening. The Department will conduct the
 remaining portions of the hearing during the rest of
 this week.

The criteria for consideration at the
hearing are limited to specific Commission and
Department criteria.

7 The Commission's portion of the hearing will 8 focus on whether the project is an allowed use by 9 special exception within the Recreational Protection 10 (P-RR) subdistricts.

11 The Department's portion of the hearing will focus on the following criteria: Scenic character 12 and existing uses which includes visual impact 13 assessment and scenic aesthetic uses, buffering for 14 15 visual impacts, recreational and navigational uses; two, wildlife habitat and fisheries which includes 16 endangered species including Roaring Brook Mayfly, 17 18 Spring Salamanders, brook trout habitat, habitat fragmentation and buffer strips around cold water 19 20 fisheries; three, alternatives analysis; four, 21 compensation and mitigation including the following 22 resources, cold water fisheries habitat, outstanding river segment and wetlands. A copy of the criteria 23 is on a one-page sheet, which is located towards the 24 25 back of the room on the right-hand side -- on your

1 right-hand side there is a round table, so if you want to take a look at that that's available. 2 The DEP will also evaluate whether CMP has 3 demonstrated that its project -- proposed project 4 meets the remaining criteria of the Natural Resources 5 Protection Act and the Site Law and comments and 6 7 evidence on those criteria may be submitted to the 8 DEP in writing. My name is Susanne Miller. 9 I am the Director for the Department's Eastern Maine Regional 10 Office and I have been designated the Presiding 11 12 Officer for this matter by the Commissioner of the Department. This designation is limited in its scope 13 14 to the authority necessary to conduct the hearing and 15 administer governing procedural statutes and regulations in the development of the administrative 16 record. My role does not include the ultimate 17 18 decision-making authority on the merits of the application, that is -- which the Commissioner 19 20 expressly retains. 21 Joining me from the Department of

21 Doffing me from the Department of 22 Environmental Protection today are Jerry Reid is 23 right over there, Commissioner; Jim Beyer, Project 24 Manager for the NECEC project; and Mark Stebbins, who 25 is with our Land Program. Also with us is Peggy Bensinger, Assistant Attorney General and counsel to
 the Department to my right. We also have a few other
 folks here from the Department. We have Doris
 Peaslee, who is handling our tech on the computer.
 We have April Kirkland, who is over to the right.
 And we also have David Madore, who is our
 Communications Director in the back of the room.

8 Tomorrow, we will be joined by the Land Use 9 Planning Commission and its attorney for that portion 10 of the hearing, which begins at 10:30.

I I should also mention at this time that while not a part of these proceedings, Mr. Jay Clement from the U.S. Army Corps of Engineers will also be here during the week in case anyone has questions about the federal process and he's up in the back there.

17 This public hearing is being recorded and it 18 will be transcribed. Copies of the transcript will 19 be available upon request once the transcript is completed. Our court reporter is Dostie Reporting 20 21 Service and sitting up with us today is Robin Dostie 22 and she's in the pink right there. Prior to 23 presenting the summary of your direct testimony or cross-examining a witness, please state your name 24 25 clearly, who you are affiliated with and which

1 Intervenor group you represent.

2 A microphone is provided to each party as well as for the witnesses, the Presiding Officer's 3 table and for those questioning witnesses. Please 4 5 note that the microphone has an on/off switch, please 6 turn it on before you speak and make sure you turn it 7 off when you are done to avoid feedback and also to ensure any side conversations aren't recorded. 8 Just 9 when you press the gray button when the blue light is 10 on the mic is on and when you press it again the blue 11 light goes off then it's off.

12 This week the entire proceeding will be 13 live-streamed through the University of Maine 14 Farmington's live-stream system. A link to this is 15 provided on the Department's website and the 16 streaming is directly through the UMF system.

At this time, please silence or turn off your electronic devices including cell phones so that there are no interruptions.

A couple of logistical notes, the emergency exits to this room are located outside the doors if you head down the right and then make another right. The restrooms are located in the same general direction, so just go out the doors and make a right and you'll see them in that general area as well. You can get snacks and coffee by purchasing them at
 the University dining hall. Coffee and snacks in
 this room are for staff.

This hearing is being held by the Department 4 pursuant to the Maine Administrative Procedure Act, 5 6 Title 5, Sections 9051 through 9064 Chapter 3 of the 7 Department's Rules - Rules Governing the Conduct of Licensing Hearings. On September 7, 2018, January 8 17, 2019 and March 26, 2019, the Department held 9 pre-hearing conferences in which this hearing's 10 11 procedures were discussed. The procedures and 12 rulings for this hearing are specified in the eight Procedural Orders and one Commissioner's ruling which 13 were submitted August 13, 2018, October 5, 2018, 14 February 5, 2019, March 4, 2019, March 13, 2019, 15 March 18, 2019 was the Commissioner's ruling, March 16 21, 2019 and March 29, 2019. 17

Notice of this public hearing was published in the following newspapers in Maine, the Lewiston Sun Journal on March 1, 2019 and March 22, 2019; the Bangor Daily News on February 26, 2019 and March 22, 2019; the Kennebec Journal on February 27, 2019 and March 22, 2019; and the Portland Press Herald on February 28, 2019 and March 22, 2019.

25

Notice was also send to the parties as well

as those persons and/or entities set forth in Chapter
 3 and all those who specifically requested
 notification.

During the daytime portion of the hearing, 4 the Department will receive evidence from the 5 6 Applicant and Intervenors. Intervenors in this 7 proceeding are organized by group and include: Group 8 1, Friends of Boundary Mountains, Maine Wilderness Guides and Old Canada Road; Group 2, West Forks 9 10 Plantation, Town of Caratunk, Kennebec River Anglers, 11 Maine Guide Services, Hawk's Nest Lodge and Mike 12 Pilsbury; Group 3, International Energy Consumer Group, City of Lewiston, International Brotherhood of 13 Electrical Workers Local 104 and Maine Chamber of 14 Commerce and the Lewiston/Auburn Chamber of Commerce; 15 Group 4, Natural Resources Council of Maine, 16 Appalachian Mountain Club, Trout Unlimited; Group 5, 17 18 Wagner Forest Management; Group 6, The Nature 19 Conservancy and the Conservation Law Foundation; Group 7, Western Mountains and Rivers Corporation; 20 Group 8, NextEra; Group 9, Office of the Public 21 22 Advocate; and Group 10, Edwin Buzzell, Carrie 23 Carpenter, Eric Sherman, Kathy Barkley, Kim Lyman, Mandy Farrar, Matt Wagner, Noah Hale, Taylor Walker 24 25 and Tony DiBlasi.

Some of the Intervenors are Intervenors for
 the Department portion of the hearing only, some are
 Intervenors for the Commission's portion only and
 some are intervenors in both proceedings.

Testimony of the parties was filed in 5 6 writing in advance of the public hearing. That 7 pre-filed testimony is part of the record and all of 8 the parties have received copies. Today's hearing will begin with opening statements from all of the 9 parties followed by and overview of the proposed 10 11 project from the Applicant. Then we will begin with 12 a summary of the testimony from the Applicant's first witness panel, cross-examination will follow that. 13 14 As you will see throughout this hearing, many 15 witnesses have group -- been grouped into panels to allow for an efficient hearing. Please note that 16 17 counsel for the Department and Department staff may 18 ask questions at any time, although the Department 19 will generally hold its questions until the completion of cross-examination. 20

A copy of today's agenda is located on the a table in the back of room as well. And I just want to just make one minor note, which is that we inadvertently did not add an opening statement block for Group 10, so we're going to add that at 9 o'clock 1 after Group 8 is finished.

The Commission and Department will hear 2 3 testimony from the general public on Tuesday, April 2 4 starting at 6 p.m. The Department will hear 5 testimony from the general public on Thursday, April 6 4 starting at 6 p.m. Any testimony from members of 7 the public that is focused on the topics of the 8 Commission portion should be given tomorrow night as the Commission will not be present at the evening 9 10 session Thursday night. Testimony on Thursday night 11 will be limited to the Department's hearing topics. 12 All witnesses at this hearing will be sworn. All evidence already entered into the record will be 13 available during the course of the public hearing for 14 15 inspection by anyone who wishes to do so. A copy of the project file is located also on that back round 16 17 table. Please speak with a representative from the 18 Department if you wish to look at portions of the 19 file. After the hearing, the project file will be available for public review by arrangement during 20 21 regular business hours at the Department's Bangor office. 22

At this time, I ask all persons planning to testify today to stand up and raise their right-hand so I can swear you in. I think we've got everybody. 1 Okay. Do you swear or affirm that the testimony you 2 are about to give is the whole truth and nothing but 3 the truth?

4

(Witnesses affirm.)

5 MS. MILLER: Thank you. All participants in 6 the public hearing are expected to conduct themselves 7 professionally both in their dealings with the 8 Department, with each other and the general public. If a party or member of the general public is unable 9 10 to conduct themselves professionally, I will take 11 appropriate action which may include excluding the individual from further participation in the 12 proceedings. 13

In closing, the goal is a fair and productive public hearing. Please be aware of time constraints and adhere to the time allotted to you in the agenda. Please be concise and keep testimony relevant to the licensing criteria set forth in the Department's and Commission's procedural orders. Department staff have read the pre-filed

direct and rebuttal testimony. The Department is here to listen and consider all of the evidence. The purpose of this public hearing is to collect information as part of the license application process for the Department to be able to based upon

1 the administrative record as a whole make an informed 2 decision based on the facts and statutory 3 requirements. Thank you all for your participation. 4 With that, we will get the proceeding 5 started beginning with opening statements and we'll 6 start with the Applicant. 7 MR. MANAHAN: Good morning. Can you hear me 8 My name is Matt Manahan representing Central okay? Maine Power and with me is Lisa Gilbreath also 9 representing Central Maine Power. Is it okay for me 10 to speak here in this location as opposed to the 11 12 podium? 13 MS. MILLER: Yes. 14 Great. Thank you. The New MR. MANAHAN: 15 England Clean Energy Connect project, or NECEC, has been prominent in the news of late, but our task 16 today is removed from all of the politics and the 17 18 media hype. CMP will demonstrate this week that the 19 proposed project meets all DEP approval criteria as it relates to the four hearing topics. CMP has 20 21 carefully and thoughtfully sited and designed the 22 project to avoid impacts whenever possible, to 23 minimize unavoidable impacts and to compensate for those unavoidable impacts. 24 25 First, with respect to alternatives, the

1 evidence will show that there is no practicable alternative that would be less damaging to the 2 environment. In reviewing alternatives, CMP's 3 primary consideration was identifying the existing 4 transmission line corridor closest to the Canadian 5 6 border, which is Section 222 in The Forks and 7 evaluating the optimal route from the Canadian border 8 to connect to it. CMP's project route and Alternatives analysis avoided siting the project in 9 10 the state and national parks, recreation areas, areas 11 with protected or natural or cultural resources and areas with high scenic values and sensitivity. 12 CMP's witnesses will show this week that the alternatives 13 to the chosen route would add significantly greater 14 15 adverse impacts.

Second, with respect to hearing topics on 16 scenic character and existing uses, the evidence will 17 18 show that the project will not adversely affect scenic character and will not unreasonably interfere 19 with existing scenic aesthetic or recreational uses. 20 CMP carefully sited the project to maximize the use 21 22 of existing conditions and natural buffers such as 23 topography and intervening vegetation to minimize the visibility of project. For example, one, to the 24 25 extent possible when avoiding the sensitive areas I

1 just mentioned choosing the straightest route between the Canadian border and the existing CMP transmission 2 line Section 222 corridor, thus minimizing the length 3 of new transmission line corridor to less than 54 4 Two, co-locating more than 70 percent of the 5 miles. 6 proposed transmission line with existing transmission lines within existing corridors avoiding or 7 8 minimizing new visual impacts that can occur with new 9 Three, maximizing the use of natural corridors. buffers such as topography and intervening vegetation 10 11 to minimize the visibility of the project by, for example, avoiding ridge lines and siting the 12 transmission corridor alongside slopes and low 13 points. Four, orientating the transmission line 14 15 perpendicular to Route 201 where the corridor crosses that road so that the transmission line corridor is 16 visible for the minimum amount of time to passing 17 18 motorists. And five, locating the transmission line along the west side of Johnson Mountain and along the 19 20 shoulder of Coburn Mountain to reduce its visibility from Route 201. 21

22 CMP also carefully designed the project to 23 minimize its visibility. For example, one, using 24 self-weathering steel structures in most locations to 25 support transmission line corridor conductors to make

1 them less obtrusive and more compatible with their 2 natural surroundings. Two, proposing to shorten the structure close to Beattie Pond to minimize its 3 visual impact and visibility to recreational users of 4 that pond. Three, reducing the height of structures 5 along the west side of Moxie Lake to minimize their 6 7 visibility. And four, proposing to cross beneath the 8 Upper Kennebec River utilizing horizontal directional drilling, or HDD, rather than an overhead crossing to 9 eliminate visible conductors, aviation markers and 10 11 structures from the Kennebec River and to maintain 12 that river's segment scenic and recreational values. CMP also proposed to create new buffers to minimize 13 14 the project's visual impacts. Examples include 15 roadside buffer plantings in several areas and tapering of vegetation along the edges of the 16 transmission line corridor segments visible from the 17 summit of Coburn Mountain from Rock Pond. 18

19 Third, with respect to the next hearing 20 topic wildlife habitat and fisheries, the evidence 21 will show that the project will not unreasonably harm 22 significant wildlife habitat or threatened or 23 endangered plant habitat. CMP's proposal including 24 the following measures specifically intended 25 including Roaring Brook Mayfly and Northern Spring

1 Salamanders. One, riparian buffers and 100 feet will 2 be maintained adjacent to all perennial streams 3 within Segment 1 adjacent to all cold water fishery streams crossed by the project adjacent to all 4 5 streams containing threatened or endangered species 6 and adjacent to all four outstanding river segments 7 crossed aerially by the project. Two, at the request 8 of IF&W, CMP is proposing expanded riparian buffers of 75 feet for all other streams. And three, CMP 9 10 modified the design to include eight taller 11 structures to avoid and minimize impacts by allowing 12 full height canopy within the 250 food wide conservation management areas of two streams 13 14 containing threatened and special concern status 15 species.

16 To avoid habitat fragmentation, CMP is co-locating more than 70 percent of the new 17 18 transmission line within or immediately adjacent to existing transmission line corridors rather than 19 creating a new corridor for the entire transmission 20 line. You will also hear about several other 21 22 measures to minimize habitat fragmentation within Habitat 1, which is the new corridor portion of the 23 project. For example, within the Upper Kennebec 24 25 River dewintering area establishing maintaining 10

1 new deer winter travel corridors.

2 With respect to cold water fisheries, the 3 project proposal includes several measures to avoid, minimize and compensate for unavoidable impacts 4 5 including, one, permanently preserving over 12 miles 6 of cold water habitat and almost eight miles of 7 habitat and frontage along the Dead River. Two, 8 replacing missing non-functional and improperly 9 installed culverts to reconnect isolated cold water 10 fishery habitat to downstream areas. Three, donating 11 \$180,000 to the Maine Endangered and Nongame Wildlife 12 Fund to pay for additional mitigation for unavoidable cold water impacts. And four, performing stream 13 crossings by heavy equipment during construction 14 through the installation of equipment spans with no 15 in-stream disturbances. Fourth, and with regard to 16 17 the final hearing topic with respect to compensation 18 and mitigation, the evidence will show that CMP has 19 proposed a very robust compensation plan to address all unavoidable impacts. 20

21 CMP has offered compensation for unavoidable 22 impacts in many forms and for numerous purposes, 23 offered in lieu fees total more than \$3 million and 24 other compensation fees total over \$2 million for a 25 total of over \$5 million. Land proposed for

1 permanent preservation total nearly 2,800 acres, provisions for tapering of transmission corridor 2 vegetation at two locations, Coburn Mountain and Rock 3 Pond, Three Slide Mountain near Gold Brook, increased 4 5 vegetation maintenance costs by more than \$22,000 per 6 year and maintenance of winter deer travel corridors 7 in the Upper Kennebec deer wintering, increased 8 vegetation management costs by more than \$9,000 per 9 year. Conserved land will include over 2,000 acres 10 to offset wetland impacts, an additional 717 acres 11 within the Upper Kennebec deer wintering area. We 12 believe this is the most, one of the most, if not the most, robust compensation plans for any development 13 project in Maine history especially given be the 14 15 project's minimal natural resource impacts. Ιt includes numerous design, construction, maintenance 16 and monetary components that far exceed what is 17 18 required for compensation by statute and regulation and that very effectively compensate for unavoidable 19 20 impacts.

So in short, the evidence will show that the New England Clean Energy Connect meets all DEP approval criteria and that there is no other practicable alternative that will be less damaging to the environment and that meets the project purpose, 1 which is to deliver 1,200 megawatts of clean energy 2 generation from Quebec to New England at the lowest 3 cost to ratepayers. Thank you for your time and 4 consideration. 5 MS. MILLER: Thank you. Before we move on 6 to Group 1. I just want to mention that April sittir

6 to Group 1, I just want to mention that April sitting 7 over here is helping me keep time, so throughout 8 these proceedings as -- if you see her lift up a red 9 piece of paper it's going to tell you when you have 10 about a minute left. I'm also going to be looking at 11 that so just -- so we can do our best to stay on 12 track today.

So now we'll go ahead and go to Group 1,Mr. Haynes.

MR. HAYNES: Thank you. Does this sound okay to everybody? Good morning and I thank you for attending the first day of DEP hearings regarding the NECEC proposal to cross western Maine for the new power line corridor. I am Robert Haynes, a Maine licensed forester --

MS. MILLER: I'm sorry, can you move the microphone just a little closer for the transcriptionist? MR. HAYNES: I can do that. I can do that. MS. MILLER: Thank you. 1 MR. HAYNES: I'm Robert Haynes, a Maine 2 licensed forester, coordinator of the Old Canada Road 3 National Scenic Byway Incorporated, spokesperson for Group 1 and an abutter to the project. 4 Group 1 consists of the Friends of Boundary Mountains, Maine 5 6 Wilderness Guides Organization and Old Canada Road 7 Scenic Byway.

8 I'd like to give you an overview of the 9 components of Group 1. Friends of the Boundary 10 Mountains witness Janet McMahon, an eminent ecologist 11 who has long studied the intact forested region of 12 the western Maine mountains will bring testimony to your attention on how the habitat fragmentation 13 14 caused by the CMP power line will bring dire 15 ecological consequences to the core habitat of a region significant at a continental scale. 16 These 17 will be permanent ecological consequences affecting 18 biodiversity that cannot be mitigated or compensated 19 away.

The Maine Wilderness Guides Organization calls to your attention that CMP's proposed project will have significant negative impacts on existing wilderness guiding operations. The largest unfragmented forest of the region, wildlife and wildlife habitat and will show its concerns that CMP

has not made adequate provisions for fitting the
 development harmoniously into the existing natural
 environment and that the development will adversely
 affect existing uses and scenic character.

The Maine Wilderness Guides Organization is 5 6 a non-profit organization whose mission is to provide 7 the unified voice for the profession of wilderness 8 guiding while maintaining the highest professional, 9 educational and stewardship standards for the conservation of remote woods and waters. 10 MWGO has 11 approximately 100 members including members who guide in the forest, rivers, streams and lakes that will be 12 affected by this proposal. 13

14 The National Scenic Byway Program selected distinguished roads of national significance across 15 the country. To date there are only 150 across the 16 nation. Old Canada Road was selected in 2000 by the 17 18 Secretary of Transportation. Funded with competitive grant money from the Federal Highway Administration, 19 20 OCR has invested over a million dollars over the 78 mile byway corridor from Solon to Canada promoting 21 22 positive visitor experience and creating opportunity 23 for travelers to stay longer and spend more money. One of the intrinsic values that caused OCR 24 25 to be selected in 2000 as a national byway was its

outstanding scenery, small towns and working forests. 1 We work closely with the Maine Department of 2 3 Transportation in completing projects. The most recent was a 6 mile trail project in cooperation with 4 5 Central Maine Power Company on the Kennebec and Dead 6 Rivers. Tourists come to the Upper Kennebec Valley 7 for what it has and for what is missing, night sky, 8 lack of self-service, if desired, lack of chain stores and, of course, the Maine woods. Our visitors 9 come from around the world and all over the United 10 11 States not just for what this new road designation 12 can offer but for what guides and the recreational industry have provided for decades, a continuous, 13 14 positive outdoor experience from wild water rides to 15 snowmobiling to just enjoying being away from it all.

16 The Upper Kennebec Valley has provided memories for years. We want to continue helping to 17 18 provide that experience for generations, however, the design of the NECEC project has caused concern with 19 its potential impact on the scenic quality and 20 existing uses. The OCR directors have serious 21 22 concern that an HVDC power line from Canada as proposed will be detrimental to the traditional Maine 23 woods experience. Return customers are the best and 24 25 we want them to come back for years. Returning to

see a very tall power line cutting across Old Canada 1 2 Road, over Coburn Mountain and through the Moose 3 River basin may not be what they have in mind. Ι will bring testimony to your attention that 4 demonstrates how critical the scenic character and 5 6 existing uses along the Old Canada Road area are to 7 the people, business and experience of this region. 8 Thank you.

MS. MILLER: Thank you. Group 2.

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MS. CARUSO: 10 Good morning. Thank you for 11 this opportunity. My name is Elizabeth Caruso, I'm 12 the First Selectman of the Town of Caratunk. Caratunk is a remote rural town nestled along the 13 Kennebec River on the Appalachian Trail and is home 14 15 to Pleasant Pond, many years the state's cleanest body of water. 16

17 Once a historic logging town, now Caratunk's 18 rugged natural landscape and non-industrialized natural resources lure tourists and vacation home 19 owners from all over the country to live and recreate 20 21 here. The region's snowmobile trails, rivers, native 22 brook trout fisheries, hunting grounds, remote 23 beautiful ponds and nearby mountains with spectacular non-industrialized views are the treasures that these 24 25 urban people seek as well as our own residents.

1 Like The Forks area, Caratunk's year-round residents either make their livelihoods within the 2 recreation and natural resource-based tourism 3 industry or in the construction, logging and service 4 industries catering to the needs of seasonal and 5 6 year-round landowners. Along with the West Forks 7 Plantation, we represent two of the towns and 8 plantations along the 53 miles of new corridor, all of whom have officially opposed this project. 9 10 Additionally, Group 2 consists of the 11 Kennebec River Anglers, a unique fishing guide service that focuses on guiding their clients who 12

come from all over the country to catching wild brook 13 trout in remote and niche rivers, ponds and lakes of 14 the new corridor. Maine Guide Service similarly 15 quides hunters, anglers, snowmobilers and hikers 16 visiting all over the country and is also the 17 18 Kennebec River Ferry Service for the Appalachian Trail in Caratunk. Hawk's Nest restaurant and lodge 19 20 in the West Forks is another business based on the natural resource tourism in our area. 21

This large scale industrial project does not belong in Maine and certainly not in the last unfragmented forest we are so blessed to have in our region. The negative impact on the scenic character

and existing uses along the first 53 miles will diminish the quality of life and economic possibility around the growing outdoor industry and the area towns. CMP has failed to demonstrate that their proposal would not cause unreasonable impacts to the socioeconomic conditions for the people who live, work and visit the first 53 mile segment.

8 Group 2's testimony and the testimony of other opposition Intervenors will show that CMP has 9 10 failed to demonstrate that this proposed industrial 11 project will not unreasonably interfere with the 12 scenic character, existing scenic, aesthetic, recreational or navigational uses and has failed to 13 show that an industrial project of this scale and 14 15 size could possibly fit harmoniously into the natural 16 environment. CMP has failed to demonstrate that this industrial project will not unreasonably harm any 17 18 significant wildlife habitat, fresh water wetland 19 plant habitat, threatened or endangered plant habitat and specifically the endangered species Roaring Brook 20 21 Mayfly, spring salamanders, brook trout habitat, 22 habitat fragmentation and buffer strips around cold 23 water fisheries. We do not agree that CMP has met its burden of proof that there is no practicable 24 25 alternative. Even assuming that they have, CMP has

not minimized the proposed alteration to Maine's
 natural resources as much as possible. This
 industrial activity will have an unreasonable impact
 on protected natural resources and wildlife.

And finally, CMP has failed to provide 5 6 adequate mitigation and compensation for a loss of 7 wetland function since they have failed to even 8 adequately assess the impacts on cold water fisheries habitat, the outstanding river segments and wetlands. 9 10 For all of these reasons Group 2 expects the 11 Department will find that CMP has failed to meet its 12 burden not only with the respect to the hearing topics, but also on other necessary review criteria 13 relevant to a determination to issue a Natural 14 15 Resource Protection Act permit and Site Location Development Act permit. So Group 2 urges the 16 17 Department to reject CMP's project and deny its 18 application. Thank you. MS. MILLER: 19 Thank you. Group 3.

MR. BUXTON: Thank you and good morning,
all. I am Tony Buxton of Preti Flaherty representing
Industrial Energy Consumer Group this week. With me
is Benjamin Borowski of Preti Flaherty and later this
week we'll be joined by Jerry Petruccelli of his
firm.

Group 3 is composed of Industrial Energy 1 Consumer Group, City of Lewiston, Lewiston/Auburn 2 Chamber of Commerce, the International Brotherhood of 3 Electrical Workers and the Maine State Chamber of 4 Most of our testimony has been designated 5 Commerce. 6 for comment status, but we are pleased to offer brief 7 testimony by Robert Myers, Executive Director of the 8 Maine Snowmobilers Association on the value of the project to snowmobiling. These groups are united in 9 our support to CMP's application because we think CMP 10 11 has met both the letter and the intent of the law 12 that has been recited by others here today. We understand the importance of carefully analyzing each 13 of these issues and we welcome this opportunity --14 15 the opportunity to join in this effort, however, our analysis of those issues and of the application of 16 CMP convinces us that those standards are being met 17 18 by CMP and indeed that CMP in this proceeding and in others has made an extraordinary effort to make this 19 a good project that fits harmoniously into the 20 environment of Maine. We understand the importance 21 22 of these statutes and this project to society and we 23 understand that if we are to meet the needs of society that we have both a practical and a moral 24 25 obligation to find reasonable solutions; in this

1 instance, to find ways to transport clean, renewable 2 energy from the Ouebec border to Lewiston, Maine. 3 We thank and congratulate all of the parties here today for their participation whatever their 4 position may be. We believe civilization survived 5 6 because we reason together and we look forward to 7 doing that this week. Thank you. 8 MS. MILLER: Thank you. Next, we have Group 9 4. 10 MS. ELY: Good morning. My name is Sue Ely 11 and I am here to represent Group 4 consisting of the 12 Appalachian Mountain Club, The Natural Resources Council of Maine and the Maine Council of Trout 13 14 Unlimited. We plan to show that this project would 15 cause irreparable damage to Maine's north woods. We are most concerned by the approximately 53 new 16 miles -- miles of new permanently clear transmission 17 18 corridor that would bisect the largest remaining 19 block of intact temperate forest in the U.S., a globally significant forest region. We are also very 20 21 concerned about the negative wildlife impacts of the 22 expanding the existing corridor. Aside from the 23 underground crossing of the Kennebec River, CMP's proposed line utilizes 100 foot tall above-ground 24 25 transmission lines that will negatively impact the

Appalachian Trail, hundreds of wetlands and streams,
 dozens of inland waterfowl and wading bird habitat
 areas and deer wintering lot -- yards and encroaches
 upon Beattie Pond, a Class 6 remote pond.

Even the Maine Public Utilities Commission, 5 6 with which we disagree vehemently on the recent 7 hearing examiner's report on this project, concedes 8 that the project would have a significant adverse effect on scenic and recreational values including 9 10 the associated impacts on tourism and the economies 11 of communities near this project. The Public Utilities Commission advocated its responsibility to 12 protect Maine's --13

MR. MANAHAN: Ms. Chairman, I'd have to object to discussion of the PUC proceeding here today.

17 MS. BENSINGER: Do you want to respond to 18 that objection?

MS. ELY: It's a -- it's a public record directly relevant to this project and they actually specifically called out their lack of evaluating scenic -- acting on scenic and recreational impacts on the presumption that this body will do that. MS. BENSINGER: I would recommend that you sustain the objection and limit -- limit any 1 discussion about the PUC's analysis.

2 MS. MILLER: So I will sustain it. Limit it 3 to what is relevant to this proceedings. Thank 4 you.

MS. ELY: So I am still unclear.

6 MS. BENSINGER: I mean, try not to dwell on 7 the PUC process. We're here to talk about the DEP's 8 statutory criteria and not the PUC's criteria. So 9 your opening statement is more about your position on 10 whether the Applicant has met the criteria that the 11 DEP has to apply.

MS. ELY: Okay. We believe -- we agree that 12 the hearing examiners are correct in that there will 13 be impacts on scenic and recreational values 14 15 including impacts on tourism and economies of communities near the project. And because of these 16 impacts and because this is the body that is being 17 18 tasked with doing this analysis and it's clear that there are not other bodies doing a similar analysis 19 or any other parallel analysis like the PUC, it makes 20 the work that we're doing this week even more 21 22 critical and vitally important and we thank you for 23 the opportunity to provide information about these numerous and significant concerns. 24

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On the scenic character and existing uses,

1 this proposed project is not consistent with and would negatively impact the scenic character and 2 existing uses of the region, for example, this 3 project would significantly degrade the remote 4 undeveloped scenic character of the region and harm 5 6 the experience of existing recreational users 7 including hikers, boaters, paddlers and those who 8 hunt and fish in these remote and beautiful areas. The proposed line will also degrade the hiking 9 10 experience for users of the Appalachian Trail. Ιt 11 would be the first crossing of the AT by a transmission line of this size anywhere in the state. 12 On wildlife habitat and fisheries, the 13 western Maine mountains is the heart of a globally 14 15 significant forest region that is notable for this relatively natural forest composition, lack of 16 permanent development and high level of ecological 17 18 connectivity. The proposed new corridor would be one 19 of the largest permanent fragmenting features bisecting this region and would have an unreasonable 20 adverse effect on wildlife habitat, wildlife life 21 22 cycles and travel corridors. CMP's assessment of 23 these impacts is cursory, overly general, lacking in specific analysis and inappropriately conflates the 24 25 impacts of the corridor with those of timber

1 management.

2	MS. MILLER: Can we wrap this up?
3	MS. ELY: This region is the heart of the
4	largest block of impact aquatic habitat in the
5	northeast supporting populations of native brook
б	trout that has been identified as the last true
7	stronghold for brook trout in the United States. It
8	would substantially fragment its habitat with
9	multiple stream crossings, the impact for trout
10	habitat, the creation of a new corridor that could be
11	a vector for increased human use and the introduction
12	of invasive species.
13	The clear cut away for the project would
14	impact hundreds of vernal pools and important travel
15	routes to and from these pools, again, resulting in
16	impacts ranging from complete destruction of some
17	vernal pools to greatly compromised habitat for
18	others. The project would also dramatically impact
19	deer wintering areas, a habitat type that is critical
20	to help Maine deer survive Maine's long winters when
21	food and shelter are critically limited.
22	CMP has also failed to demonstrate that
23	there is not a practicable alternative to the
24	proposed project that is less damaging to the natural
25	environment such as burying the project underground

1 or considering alternatives to reduce impacts on the unfragmented forest, brook trout habitat, vernal 2 3 pools and deer wintering areas. Finally, CMP has 4 failed to provide adequate mitigation or compensation 5 of the projects many impacts. CMP's proposed 6 mitigation is inadequate to compensate for 7 fragmentation of Maine's north woods as well as 8 specific impacts on brook trout habitat, vernal pools or deer wintering areas. For this reason and the 9 10 reasons stated above, Group 4 respectfully asks the 11 Department to deny CMP's permit application. 12 MS. MILLER: Thank you. Group 5. MR. NOVELLO: Good morning. 13 Thank you for 14 the opportunity to speak with you today. My name is 15 Mike Novello. I'm an employee of Wagner Forest Management. I am here representing Group 5. We are 16 17 taking no position for or against this project. 18 Our client borders the proposed transmission line for much of its travel through The Forks 19 20 Plantation. We originally filed for Intervenor status to ensure that our client's interests were 21 22 represented and protected in these proceedings. Our 23 concern is limited to one topic that several photos in the derived photosimulations were taken from our 24 25 client's land without their permission. As this land

1 is privately owned, we do not believe it is appropriate for views from this private land to be 2 3 considered in evaluating the scenic impact or other topics before this -- before the parties. Thank you. 4 5 MS. MILLER: Thank you. Group 6. 6 MR. WOOD: Hi. Good morning. Rob Wood with 7 The Nature Conservancy representing Group 6, the 8 Nature Conservancy and Conservation Law Foundation. 9 The Western Maine region contains globally 10 and regionally significant wildlife habitat. The 11 Nature Conservancy's science shows that this area is 12 unique in the eastern United States for its high level of habitat connectivity and its high level of 13 14 resilience to climate change. Western Maine provides 15 a key linkage to wildlife movement especially for species that require mature forests and full canopy 16 cover and the reason will become more important over 17 18 time. We are concerned about the habitat 19 fragmentation that would occur from Segment 1 of the proposed transmission corridor. Unlike the impact of 20 forestry in the region, this transmission corridor 21 22 would traverse the entirety of the core forest block, would be wider than standard logging roads and would 23 create a permanent fragmenting feature and connected 24 25 a resilient forest habitat. We believe that more can

1 be done to avoid, minimize and compensate for these 2 habitat fragmentation impacts to ensure no net loss 3 biodiversity. For example, the line to be sited along the Spencer Road to reduce a new forest edge 4 with portions potentially buried along the road, the 5 6 corridor could also be narrowed through additional 7 vegetative tapering and fragmentation could be 8 reduced through additional wildlife travel corridors. For any remaining habitat, fragmentation habitats, 9 10 additional compensation could be provided to conserve land in the region, which could reduce habitat 11 12 fragmentation elsewhere in the region and prevent future habitat fragmentation. 13 Thanks. 14 MS. MILLER: Thank you. Group 7. Good morning. My name is Ben 15 MR. SMITH: I'm here on behalf of Western Mountains and 16 Smith. Rivers Corporation, also known as WMRC, a Maine 17 18 non-profit corporation. WMRC was formed in August 2017. As a 19 non-profit, WMRC's mission is to expand conservation 20 21 along western Maine's rivers including the Kennebec, 22 Dead, Sandy, Moose, Sebasticook and Carrabassett and 23 also surrounding natural resources and also to develop recreation projects, educational programs and 24 25 increase economic development in the area through

1 nature-based tourism.

2 Contrary to some claims of Intervenors, some 3 Intervenors, board members of WMRC are entirely comitted and they are legally obligated to follow the 4 laws, federal and state, surrounding charitable 5 6 missions of non-profit organizations. There can be 7 no private inurement, period. There have also been criticisms about WMRC's members in the press 8 9 including that the members are unknown, that they're not from the area, that they're not devoted to the 10 11 region, that they're working at CMP's directions, that there are only a few handpicked rafting 12 organizations and they don't have any other 13 experience with outdoor recreation. All these 14 criticisms are unfounded. The current board member 15 of WMRC or the current board membership is close to 16 1,500. Board members include business and community 17 18 leaders from the greater Forks region, career public 19 servants and people dedicated to the communities in and around The Forks area. 20

I'll give you some examples. Ben Towle from Caratunk, owner of Maine Lakeside Cabins, owner of Maine Outdoor Sports, president of the local ATV club. John Philbrick, Caratunk, owner of Adventure Bound and member of the recreational industry and

recreational guide for years, also previously worked 1 2 for New England Outdoors another recreational outfitter. Judith Hutchinson, The Forks, local 3 4 select person, assessor, past president of The Forks Fish and Game Club, currently works as a tax auditor 5 6 for the state. Susie Hoffmeyer, Caratunk, vice 7 president and co-founder of Northern Outdoors in The 8 She's a registered Maine Guide, master Forks. license, hunting, fishing, recreation and whitewater 9 rafter to the first female to hold that license. 10 Pam 11 Christopher, Moxie Gore, executive director at The 12 Forks area Chamber of Commerce for 10 years. Rachel Prominent, West Forks, owner and operator of 15 Mile 13 14 Stream Lodge, the largest guiding camp and outfitter 15 in the region. Peter Mills, Cornville, lawyer, 16 year legislator in the House and Senate, executive 16 director currently of the Maine Turnpike Authority, 17 18 has held that position since 2011. Robert Peabody, 19 Solon, owner and operator of Crabapple Rafting Company, signatory to the Harris Station FERC 20 21 licensing, son of the owner of Moxie Trail Rentals, 22 family is very involved in recreational industry. Russell Walters, Kingfield, co-owner and president of 23 Northern Outdoors, a four-season adventure resort 24 25 based in The Forks. Tom Coleman, West Forks,

district forester for LandVest to large real estate 1 2 management and holding company overseeing land in western Maine. Lloyd Trafton, West Forks, Somerset 3 County Commissioner and long-time select person for 4 West Forks U.S. Border Patrol. 5 Chris Savage, 6 executive director for Somerset Economic Development 7 Corporation. And then you also have with me here 8 Larry Warren and Joe Christopher. Larry is one of the founders of the Town of Carrabassett Valley and 9 former president and controller of Sugarloaf Mountain 10 11 Corporation and he's the founder of Maine Huts and 12 Trails. Joe Christopher, owner of several businesses including Three Rivers Rafting, Inn By The River, 13 Sugarloaf Inn, lives in The Forks, has lived there 14 15 for 30 years, makes it a weekly adventure to actually swim down the Kennebec Gorge. 16

17 Sometime after CMP began participating in 18 the Section 83D process, WMRC approached CMP in order 19 to explore ways it could protect the Kennebec Gorge. 20 The Gorge had long been established by CMP as a 21 potential for transmission line crossing. WMRC 22 wanted to suggest and did suggest to CMP that they 23 would co-locate facilities along Harris Station and Harris Dam. Unfortunately, this was not possible. 24 25 Part of that is because of a very arduous, difficult

1 and time consuming and expensive FERC relicensing and also there would be no assurance after such a 2 3 proceeding that the sort of benefits and 4 accommodations that are currently under the arrangement with Brookfield would remain the case, so 5 6 that was simply not a feasible alternative. WMRC 7 then began negotiating with CMP whether or not they 8 could pursue an underground solution. That was not a 9 preferred alternative for many reasons and I think 10 the Applicant can actually speak to.

As a result, WMRC had basically one option to do whatever it could to try to protect the Kennebec Gorge through negotiating a mitigation package and compensation package that would protect any type of intrusion and impact upon the Kennebec Gorge area under any of the alternatives that could occur and that's exactly what it did.

18 MS. MILLER: Can you wrap this up? I will. We have two witnesses 19 MR. SMITH: 20 that will speak at the Department's proceeding. We 21 have Joe Christopher and Larry Warren. They will 22 speak to the first issue identified by the 23 Department, namely whether the project will have an unreasonable impact on the existing recreational 24 25 aesthetic, scenic and other uses. As shown by their 1 testimony, we believe that the Department can find 2 and should find that the project has been designed in 3 a manner that seeks to minimize the adverse impact of 4 the project on such uses and that any impact is not 5 unreasonable. Thank you.

MS. MILLER: Thank you. Group 8.

7 MS. TOURANGEAU: Good morning. This is 8 Joanna Tourangeau on behalf of NextEra, also known as 9 Group 8. We are here to talk about the alternatives that need to be considered under the Site Location of 10 11 Development Act and the Natural Resources Protection 12 Act, 38 MRSA Section 487-A4 specifies that the Department shall consider whether any proposed 13 14 alternatives to the proposed location and character 15 of the transmission line may lessen its impacts on the environment or the risks it would engender to 16 17 public health or safety without unreasonably 18 increasing its cost. The Department may approve or 19 disapprove all or portions of the proposed 20 transmission line and shall make such orders regarding its location, character, width and 21 22 appearance and will lessen its impact on the 23 environment having regard for any increase cost to the Applicant. 24

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Under NRPA, as we all know, the question

1 that's presented is whether the preferred alternative for achieving the project purpose is reasonable 2 3 balancing cost, logistics, technical aspects against impacts to the protected resources. Here, the 4 impacts are significant and adverse. The Applicant's 5 6 supplement to its application documents the benefits 7 of undergrounding a portion of the new transmission 8 line as it crosses the Upper Kennebec. Other 9 portions of the transmission line and the 10 undergrounding alternative and its benefits associated therewith are not documented in the 11 application at all. After this flaw in the 12 application came to light the Applicant responded 13 that whether they considered the alternative or not 14 15 it's just too expensive. This isn't substantial evidence upon which the Department can determine 16 The Applicant failed to meet its 17 reasonableness. 18 burden under SLODA and NRPA to show that the costs and benefits, both sides of the scale, so that the 19 Department can determine how to balance those scales. 20 21 Thank you. 22 Thank you. And now we have MS. MILLER: 23 Group 10. 24 MR. BUZZELL: Hello. I'm Ed Buzzell and I'm 25 an Intervenor for Group 10 against CMP's NECEC

1 project. We're a group of local residents and 2 recreational users. The Applicant CMP's proposed 3 project will perversely and permanently scar the western mountains of Maine with towers and 4 transmission lines cutting through unique forest 5 6 ecosystems and rising well above the tree canopy. 7 This will make an industrial infrastructure starkly 8 visible within far too many of Maine's wild landscapes. It will slice 53 miles of new corridor 9 10 from Canada through the last and largest undeveloped 11 contiguous forest east of the Mississippi. It will 12 further cross the iconic Kennebec Gorge and most of the benefits will not be for Maine but will be more 13 Canada and Massachusetts. 14

15 The Department of Environmental Protection should deny these permits based on the following: 16 Alternatives exist for transmitting electricity from 17 18 Quebec to Massachusetts, alternatives that would not damage the State of Maine. An alternative 19 20 underground project already permitted in the State of Vermont exists to transmit electricity to 21 22 Massachusetts with no damage to Maine. The Applicant 23 itself chose not to pursue practical alternatives that would have avoided or greatly lessened the 24 25 damage that would be caused by its own proposal. The

1 Applicant failed to study or even consider burying the transmission line from Canada to The Forks. 2 Two alternate projects, one in Vermont and a similar 3 project in New Hampshire, both offered to go 4 5 underground. The Applicant until recently strongly 6 proposed to run transmission lines across the 7 Kennebec Gorge. The Applicant stated in many 8 hearings that it did not know if it was even possible 9 to drill under the Gorge. Because of Maine popular 10 opposition the Applicant then decided to directional 11 drill under the Gorge. No visual assessment has been 12 done or study of what damage directional drilling will do to the surrounding area, Kennebec Gorge or 13 the cold stream fisheries located just below the 14 15 crossing. Once this damage is done it can never be 16 undone.

The proposed NECEC corridor will be a 17 18 permanent visual scar on the base of Coburn Mountain. That scar will be seen from over 12 miles away from 19 any elevated area, while the damage done by cutting 20 21 will heal, deadly herbicides will ensure that this 22 scar will never heal. The project will be most 23 harmful to most wildlife along the corridor. A large 24 corridor will be detrimental to the deer population 25 as hunters looking for an easy kill will be able to

hunt the long open stretches of corridor and for a
 deer population faced with harsh winters and just
 starting to recover this will be tragic.

Since 2015, almost 150,000 commercial 4 5 whitewater rafting guests and almost 30,000 private boaters came to enjoy not just the Kennebec Gorge, 6 7 but also to enjoy a remote wilderness area that no 8 longer exists in the urban areas that they live. The 9 additional upswing in private boaters proves that 10 this is still a developing resource. Not all these 11 quests and private boaters come to just boat the 12 river. Many came to enjoy the natural resources such as Moxie Falls, Coburn Mountain, Number 5 Mountain, 13 thousands of other outdoorsmen and women also come to 14 15 the area to fish, camp, hunt, canoe, hike and many of the other outdoor activities. They do not come to 16 see views of development. These are existing uses 17 18 that may be irrevocably destroyed.

19 The Public Utility Commission staff admits, 20 quote, with respect to the effects of the project on 21 scenic and recreational values and the associated 22 impacts on tourism --

23 MR. MANAHAN: Could I just object for the 24 record? This is not in the pre-filed testimony and 25 in addition could I just comment, I didn't want to

1 interrupt his flow earlier and I'm sorry that I had 2 to here, but he's also said that he's testifying on 3 behalf of all of Group 10 Intervenors, most, other 4 than Mr. Buzzell, they're all non-intervenors in the 5 DEP process, they're at the LUPC, so I would object 6 to him speaking on behalf of LUPC Intervenors before 7 the DEP here.

8 MS. MILLER: I will sustain both of those. 9 And just try to limit your comments to not what's 10 happening in -- oh, I'm sorry, did you want to 11 respond to that, Ms. Boepple?

12 MS. BOEPPLE: Yes, I would, please. First 13 of all, Mr. Buzzell was not representing that he was 14 speaking on behalf of all of Group 10. We know that 15 the other Intervenors are part of the LUPC process and not the DEP. He's hear speaking as a DEP 16 Intervenor. Yes, he was grouped in Group 10, excuse 17 18 me, and therefore he should have an opportunity to 19 speak in group -- on behalf of himself in Group 10 as 20 a DEP Intervenor, so I hope that objection won't be 21 sustained.

And second, with respect to the reference to the PUC, again, this is merely reminding the Department what the role of the Department plays versus what the PUC's role played and therefore it is

1 relevant to the hearing topics and he's almost 2 concluded, so. 3 MS. BENSINGER: But I think the Presiding 4 Officer's sustaining of the objection is to the 5 quoting from the PUC decision, so if you would just 6 proceed without quoting from the PUC decision. 7 MS. BOEPPLE: Could I get clarity on the 8 objection with respect to Mr. Buzzell speaking here 9 today? 10 MS. MILLER: Yeah, Mr. Buzzell can speak on 11 behalf of Mr. Buzzell. 12 MS. BOEPPLE: Thank you. MR. BUZZELL: I was about ready to wrap this 13 14 up anyways, so. With this in mind, how can the 15 Department of Environmental Protection permit this destructive process? And thank you for your time and 16 consideration. 17 18 MS. MILLER: Thank you very much. So the 19 next thing we have on our agenda is to start with the Applicant's overview of the project. We'll do --20 21 we'll start that at 9:05, so we have a quick 22 opportunity for a break. 23 (Break.) 24 MS. MILLER: Okay. We need to reconvene 25 this. We're a little later than we had hoped in our

break. So right now on the schedule we have an overview of the project from the Applicant. THORN DICKINSON: Good morning. My name is Thorn Dickinson. I'm the Vice President of Business Development at Avangrid Networks and I'm happy to be here today to give an overview related to the project.

8 The main purpose or need of the project is for New England Clean Connect is to build a 9 transmission line and the related facilities 10 11 necessary to deliver 1,200 megawatts of renewable 12 generation from Quebec to the ISO New England electricity grid. 13 It's proposed in response to a 14 request for proposal in Massachusetts, which there 15 are 46 other proposals for long-term contracts for clean energy projects that were issued by the 16 17 Massachusetts Department of Energy Resources and the 18 electric distribution companies of Massachusetts.

19 The power from the project will provide 20 firm, guaranteed and tract year-round energy 21 deliveries that reduce winter electricity prices by 22 reducing the stress on the natural gas 23 infrastructure, also substantial reduction and 24 wholesale cost of electricity for the cost of 25 benefits of retail customers.

I'm sorry to interrupt you --1 MS. MILLER: 2 THORN DICKINSON: Yes. MS. MILLER: I just want to mention I just 3 4 noticed in our redacted testimony that was stricken 5 that last paragraph -- that last bullet at the bottom 6 of the page was some of the testimony that we had 7 struck from the record, so I just wanted to clear 8 that up. 9 THORN DICKINSON: Okay. 10 Excuse me, Ms. Miller, I don't MR. MANAHAN: believe that that was stricken. My -- as we read the 11 12 order it was just the last bullet in the discussion that Mr. Thorn -- Mr. Dickinson had in his testimony 13 14 and not the -- what preceded that last bullet. Yeah, 15 that language that's on that slide was language that was not stricken by Procedural Order, it was after 16 17 that language in that slide. What was stricken was 18 the last piece about Massachusetts Energy rules in the final bullet. 19 20 No, it was the last MS. BENSINGER: 21 paragraph in the purpose and need, so that's from 22 we'll provide on down. So why don't we move on from 23 this slide. The overall in the 24 THORN DICKINSON: Sure. 25 project is 193 miles of transmission corridor from

1 Quebec to Lewiston, Maine and from Windsor to 2 The Ouebec to Lewiston is the direct Wiscasset. current portion of the line and Windsor to Wiscasset 3 is part of the investments making in the alternating 4 current or AC portion of the line. 139.5 miles of 5 6 the route is within existing corridors. The -- we 7 have -- Central Maine Power has full control and 8 ownership of the entire route. There are substation upgrades in Cumberland, Lewiston, Pownal, Windsor and 9 Wiscasset. Overall, the project cost is \$950 million 10 11 and we expect it to be fully operational by the end of 2022. 12

When we drilled down and looked a little 13 14 closer at the project just looking at it in three 15 segments going from north to south, you have a -this is the part of the DC line, the direct current 16 portion of the line going from the Quebec border. 17 18 The yellow portion of the line is the new corridor, the 53 miles from the Quebec border to The Forks. 19 That joins up on the black area of the DC line, which 20 21 represents the part where it's parallel to the 22 existing corridor, the existing transmission line, 23 and heading south towards Bingham. The next segment further south goes from Moscow down to Jay. And then 24 25 last segment from the -- that ends up in Lewiston

where the converter station will be located. And
 then to the east you also see the alternating current
 transmission line from Windsor to Wiscasset.

4 This is a graph that -- a map that we use 5 quite a bit to demonstrate how we laid out the 6 project, as I mentioned previously. In order to 7 minimize the impact on the environment of the project, 72 percent of the route is -- of the DC line 8 is along the existing corridor. In addition, the 28 9 percent or the 54 or 53 miles from the Quebec border 10 11 through The Forks was through a privately owned 12 working forest, land that we now control and own, and was done in a way to avoid sensitive and kind of 13 conserved areas in an area of a working forest. 14

Lastly, this is just meant to represent the overall permit and time line of the project. Here you'll see various state approvals, regional approvals, federal and municipal approvals and, again, with a goal of our expectation of being able to bring the project online by the end of 2022.

21 GERRY MIRABILE: Good morning. My name is 22 Gerry Mirabile and I am Manager of NECEC permitting 23 for Central Maine Power Company. Today, we will 24 summarize our --

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MS. MILLER: Can you speak up a little bit

1 more, the transcriptionist needs to hear.

2 GERRY MIRABILE: Good morning. My name is 3 Gerry Mirabile and I am manager of permitting for NECEC project for Central Maine Power Company. 4 Today, we will summarize our pre-filed direct 5 6 testimony the four hearing topics designated by the 7 Presiding Officer in the Second Procedural Order. As part of Panel 1, I will begin by discussing hearing 8 9 topic two, Wildlife Habitat and Fisheries, in particular Roaring Brook Mayfly and Northern Spring 10 11 Salamander, brook trout habitat, habitat 12 fragmentation and buffer strips around cold water fisheries. I will then discuss hearing topic four, 13 Compensation and Mitigation including cold water 14 fisheries habitat, outstanding river segments and 15 wetlands. 16

17 First, regarding the Roaring Brook Mayfly 18 and Northern Spring Salamander. CMP has worked very 19 closely with the Maine Department of Inland Fisheries and Wildlife to protect these state-threatened and 20 21 special concern species and as a result has proposed 22 eight taller structures at Gold Brook and Appleton 23 Township and at Mountain Brook and Johnson Mountain Township within their conservation management areas. 24 These will allow full-height vegetation within those 25

conservation management areas and allow -- and avoid
 any unreasonable disturbance or harm to their
 habitat.

4 Next, we proposed a fee payment based upon the DEP's In Lieu Fee Program of \$470,000 to the 5 6 Maine Endangered and Nongame Wildlife Fund to 7 compensate for impacts to these two species in other 8 locations. CMP has also expanded buffers around streams from the standard 25 feet to 100 feet wide 9 adjacent to all perennial streams in Segment 1, all 10 11 cold water fishery streams crossed, all streams 12 containing threatened or endangered species and adjacent to all four outstanding river segments that 13 are crossed aerially. All other streams will have 75 14 15 foot buffers. Within these buffers stringent protective work practices and vegetation management 16 will be implemented. Finally, any necessary 17 18 in-stream work, which is not anticipated at this 19 time, with the exception of culvert replacement will be done between July 15 and September 15 and frozen 20 ground conditions will be utilized to the extent 21 22 possible during initial clearing and construction to 23 reduce soil compaction, vegetation damage and the need for crane mat uses. 24

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Next, I will summarize brook trout habitat.

1 To protect brook trout habitat specifically, we proposed avoidance of cold water streams wherever 2 possible through careful siting of the project, 3 expanded buffers of 100 feet rather than the standard 4 25 feet within all cold water fisheries habitat 5 6 including all brook trout habitat. Within these buffers there will be no foliar herbicides used, no 7 8 vehicle fueling or maintenance will be done unless on an existing paved road or with secondary containment, 9 mats will be used across all streams, initial tree 10 11 clearing will be during frozen ground conditions when 12 possible, mats will be used to support mechanized equipment, travel lanes or reach-in techniques will 13 be used for clearing, taller non-capable will be 14 retained outside of the wire zone within the corridor 15 and site specific erosion sedimentation control plans 16 will be developed and implemented for any structures 17 within these buffers. These measures demonstrate 18 that CMP has avoided unreasonable disturbance to 19 20 brook trout habitat and has made adequate provisions for protection of brook trout and its habitat. 21 Next, I will talk about habitat 22 23 fragmentation. Habitat fragmentation has many 24 definitions but can be summarized as a division of a 25 landscape into smaller and more isolated pieces. CMP

1 has avoided and minimized additional fragmentation by thoughtfully and siting the NECEC project. As noted 2 3 earlier, more than 70 percent of the project is within existing corridors, avoiding new fragmentation 4 of and direct impacts to resources such as wetlands 5 6 and vernal pools and all of Segment 1 is located 7 within a working forest that is regularly and 8 periodically fragmented and harvested by way of 9 clearcuts and strip cuts on a 30 to 50 year cycle. The transmission line corridor will revegetate with 10 11 shrubs and smaller trees and thus will remain a viable habitat for and traversable by a wide variety 12 of wildlife species. This is very different than 13 14 hard development such as roads where habitat is 15 entirely lost and where the remaining habitat is thereby isolated from surviving viable habitat. 16 Tree clearing impacts and fragmentation within the Upper 17 18 Kennebec deer wintering area will be minimized and mitigated by maintaining deer winter travel corridors 19 and creating and maintaining eight other deer winter 20 travel corridors where vegetation will be allowed to 21 22 grow up to heights of 35 feet and provide cover and 23 shelter from the elements and predators as deer cross the transmission line corridor, which they will. 24 The 25 above measures demonstrate that the project will not

unreasonably harm significant wildlife habitat or
 travel corridors through habitat fragmentation.

Next, I will describe project buffer strips 3 around cold water fisheries. The NECEC project has 4 been designed and will be constructed to avoid and 5 6 where this is not possible to minimize and compensate 7 for impacts to cold water fisheries. For example, we 8 will permanently preserve more than 12 miles of cold 9 water fisheries habitat. We will replace 10 non-functional and improperly installed culverts on 11 the project site and off-site to reconnect upstream fish habitat. CMP will donate \$180,000 to the Maine 12 Endangered and Nongame Wildlife Fund for cold water 13 fisheries impact mitigation and during construction 14 CMP will cross streams with no in-stream disturbance. 15 We have also expanded riparian buffers to 100 feet 16 and 75 feet described earlier and in consultation 17 18 with the Maine Department of Inland Fisheries and Wildlife and this measure will minimize ground 19 20 disturbance during construction and maintenance, minimize insulation of water temperature increases 21 22 and protect water quality. These measures 23 demonstrate CMP has made adequate provisions for buffer strips around cold water fisheries and the 24 25 project will not unreasonably harm cold water

1 fisheries.

I'll now move on to issue four, compensation 2 and mitigation, and I will summarize first the cold 3 water fisheries habitat protection. The project will 4 avoid and where this is not possible minimize and 5 6 compensate for cold water fishery impact in several ways including preservation of more than 12 miles of 7 8 cold water fisheries habitat, culvert replacements 9 on-project and off-project to reconnect viable habitat of \$180,000 donation to the Maine Endangered 10 and Nongame Wildlife Fund for cold water fisheries 11 12 impact mitigation and expanded riparian buffers within stringent and protective measures will be 13 These mitigation measures have been 14 implemented. 15 developed in consultation with the Maine Department 16 of Inland Fisheries and Wildlife to which has stated that CMP has addressed its remaining project resource 17 18 impact concerns. CMP has therefore adequately avoided where possible and mitigated and compensated 19 20 for unavoidable cold water fishery impacts. 21 Regarding outstanding river segments crossed by the project, CMP has protected the outstanding 22 natural and recreational attributes of the Kennebec 23 River by crossing beneath the river thus avoiding any 24

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visual impacts to this resource. Undisturbed buffers

1 of 1,160 feet on the west side and 1,450 on the east side of the river will be maintained allowing 2 full-height vegetation to grow in these areas. 3 The four other outstanding river segments crossed 4 aerially by the project, the Kennebec River below 5 Wyman Dam, Carrabassett River, Sandy River and West 6 7 Branch of the Sheepscot River will all be crossed by 8 the transmission line within the existing corridors 9 thereby minimizing the visual impacts. Also, CMP will maintain 100 foot riparian buffers along each of 10 these river segments. These buffers will protect 11 12 water quality, minimize ground disturbance and the potential for pollutants and sediments to enter the 13 water, minimize insulation and water temperature 14 increases and retain wildlife travel corridors. 15 Because CMP is crossing beneath the Upper Kennebec 16 17 River and because the four aerial outstanding river 18 segment crossings would be co-located within existing corridors which minimizes resource impacts by 19 20 avoiding creation of new corridors and new crossings, no reasonable alternative exists which would have 21 22 less adverse effect upon the natural and recreational features of these outstanding river segments. 23 24 I will now discuss CMP's mitigation and 25 compensation of wetland impacts. CMP designed and

1 sited the project to avoid wetland impacts wherever 2 possible and to minimize and compensate for 3 unavoidable impacts. For example, many angles in the transmission route are a direct result of routing 4 around wetlands. Construction access across wetlands 5 6 where that is necessary will be located at the 7 narrowest point of wetlands if that is feasible. CMP 8 has developed a robust compensation plan that includes significant land conservation and in lieu 9 10 fees to offset unavoidable impacts. Compensation for 11 even temporary wetland impacts, which is required by 12 the Army Corps consists of preservation of three tracts collectively containing 511 acres of wetlands 13 to be preserved and CMP has offered in lieu fees of 14 15 nearly \$975,000 to compensate for wetland impacts These avoidance, minimization and 16 alone. compensation measures demonstrate that CMP has 17 18 avoided significant and unreasonable wetland impacts 19 and has appropriately compensated for unavoidable 20 impacts. Thank you.

21 MARK GOODWIN: Good morning. My name is 22 Mark Goodwin. My colleague Lauren Johnston and I are 23 employed as senior environmental scientists by Burns 24 and McDonnell Engineering Company in Portland, Maine. 25 We've been providing CMP with state, federal and local permitting support on the New England Clean
 Energy Connect project since April of 2017.

3 Burns and McDonnell is an engineering construction services and environmental consulting 4 5 firm with recent large project experience in Maine on 6 CMP's Maine Power Reliability Program, also known as the MPRP. At over 450 miles of transmission lines 7 the MPRP was arguably the largest project developed 8 in Maine in the last 40 years. 9 Through our experience of providing environmental services on 10 11 large linear projects we have developed a thorough 12 understanding of construction impacts and the avoidance, minimization measures and best management 13 14 practices that can successfully result in no 15 unreasonable impact or adverse effects to wildlife fisheries and their habitats. 16

17 CMP has successfully applied for and 18 received approval from the DEP for multiple projects 19 including the MPRP with essentially the same types of construction practices and impact types and in some 20 21 instances less stringent requirements than those 22 proposed as part of the NECEC application. DEP 23 issued the permit for the MPRP with the finding that CMP had provided adequate provisions for the 24 25 protection of fisheries and wildlife and that the

1 construction of the project would not unreasonably 2 harm or adversely affect their habitats. With 3 respect to deering -- excuse me. With respect to DEP hearing issues 2 and 4 and related subtopics my 4 5 testimony draws the same conclusion that the project 6 will not unreasonably harm or adversely affect wildlife and fisheries or their habitat. CMP will 7 8 accomplish this through the implementation of the 9 avoidance and minimization measures and construction best management practices including in its 10 11 applications and through the execution of its 12 proposed compensation plan to offset unavoidable 13 impacts.

I will now present a brief summary of my 14 15 testimony regarding hearing issue 2 and its subtopics 16 followed by Lauren Johnston, who will provide a brief summary of our testimony on issue 4 which covers 17 18 compensation and mitigation. Hearing issue 2, as Gerry stated previously, includes wildlife habitat 19 and fisheries specific to the following subtopics as 20 described in DEP's Second Procedural Order. Subtopic 21 22 1 Endangered Species including the state threatened 23 Roaring Brook Mayfly and the Northern Stream Salamander, which is a species of special concern in 24 25 Maine. Subtopic 2, brook trout habitat, Subtopic 3

habitat fragmentation and Subtopic 4 buffer strips
 around cold water fisheries.

Subtopic 1. As demonstrated by my 3 testimony, CMP will not unreasonably harm or 4 adversely effect Roaring Brook Mayfly or Northern 5 6 Spring Salamander. Inland Fisheries and Wildlife 7 identified the presence of Roaring Brook Mayfly and 8 Northern Spring Salamander within the project area during its project review. In response, Burns and 9 10 McDonnell supported by an entomologist and a 11 herpetologist recommended by IF&W conducted field 12 surveys for those streams meeting the habitat parameters defined by IF&W and identified two water 13 14 bodies with the confirmed presence of both species. 15 These waterbodies are Gold Brook in Appletown Township and Mountain Brook in Johnson Mountain 16 Township. Following these surveys, IF&W determined 17 that due to the presence of both species in Gold 18 Brook and Mountain Brook that those waterbodies were 19 20 economically significant. Accordingly and upon 21 consultation with IF&W, CMP modified its proposal to 22 incorporate taller structures to avoid and minimize 23 clearing of full height canopy within the 250 foot management zones of Gold and Mountain Brooks. For 24 all other waterbodies with confirmed or assumed 25

1 presence of these species, IF&W determined that CMP's 2 vegetation management practices and avoidance and 3 minimization measures combined with a contribution to 4 the Maine Endangered and Nongame Wildlife Fund would 5 adequately protect and offset impacts to the habitat 6 and these species.

Next, I will discuss the brook trout habitat 7 8 subtopic. As demonstrated by my testimony, CMP will not unreasonably harm or adversely affect brook trout 9 10 habitat. There are no in-stream activities proposed 11 for the construction of the transmission line by CMP 12 that would negatively affect brook trout habitat. CMP's erosion and sediment control practices, 13 environmental control requirements and vegetation 14 15 management practices included in its applications as well as environmental monitoring commitments made to 16 DEP and others will adequately protect brook trout 17 18 habitat from pollution. Studies on the effect of transmission line development on trout habitat 19 20 demonstrate that tree clearing and the management of 21 right of ways in an early successional vegetated condition would result in a minimal impact on the 22 23 habitat. Specifically a study by Alan M. Peterson published in the Journal of Fisheries Management 24 25 concluded that electric transmission right of ways,

quote, need not constitute an adverse effect on 1 2 headwater trout population densities and forested basins. As noted in Lauren Johnston's rebuttal 3 testimony, Exhibit 4, provided in the testimony of 4 Jeffrey Reardon shows nearly the entire State of 5 6 Maine as having intact subwatershed supporting brook 7 trout populations despite the presence of human activity and disturbances. This is evidence that not 8 all human activity necessarily causes unreasonable 9 harm or adverse impact to brook trout or their 10 11 habitat especially those activities that retain 12 natural features like the proposed project. I will now address habitat fragmentation. 13 As demonstrated by my testimony, the project will not

14 15 unreasonably impact wildlife and fisheries through habitat fragmentation. CMP has avoided and minimized 16 habitat fragmentation by the following: 17 One, 18 co-locating more than 70 percent of the project in existing corridors; two, locating the remainder of 19 20 the line close to existing fragmentation features, 21 primarily logging roads and areas impacted by timber 22 harvesting as shown on Exhibit CMP-3.1A and CMP-3.1B; modifying the alignment of the new corridor to avoid 23 the majority -- excuse me; three, modifying the 24 25 alignment of the new corridor to avoid the majority

1 of significant vernal pools and retain connectivity of their critical terrestrial habitats; four, 2 3 implementing integrated vegetation management practices adopted by federal agencies including the 4 U.S. EPA that are wildlife-friendly, promote early 5 6 successional vegetation and produce a soft edge 7 effect, which improves habitat connectivity and 8 lessens the impact of fragmentation; and five, providing travel corridors for wildlife by 9 10 maintaining early successional vegetation and by 11 proposing riparian buffers and taller vegetation at 12 site specific locations including the Upper Kennebec River deer wintering area as recommended by DEP and 13 14 IF&W.

Characterizations of the western Maine --15 characterizations of western Maine as unfragmented 16 forests are as follows: 17 This area is fragmented by a number of natural and manmade features including 18 rivers and streams, the cleared and mowed area along 19 the length of the U.S./Canada border, highways 20 including Routes 6, 15, 16, 27 and 201, existing 21 transmission lines, the Central Maine and Quebec 22 23 Railway and forestry clearcuts, strip cuts, skidder trails and logging roads. The project will not 24 25 promote fragmentation through the construction of

1 access roads or access to electricity. CMP will use existing public and private logging roads to access 2 3 the project right of way. Access roads within the right of way will be temporary and restored following 4 construction. In addition, there will be no 5 6 development along the new corridor resulting from increased access to electricity because this 7 8 electricity is not available for distribution, it's direct current power. What's available for 9 10 distribution locally is alternating current. The 11 project will not create a hard edge; in other words, 12 the change in habitat is restricted to a change in vegetated cover type as opposed to the severe 13 depletion of habitat like in the case of a highway. 14 15 Comparing the project to a super highway like I-95 or the Jersey Turnpike, which are both essentially 16 devoid of habitat is completely misleading. 17 18 In regards to habitat fragmentation and significant vernal pools, no significant vernal pool

19 significant vernal pools, no significant vernal pool 20 depressions will be destroyed or directly impacted 21 through permanent fill as a result of the project and 22 the majority of the significant vernal pool 23 depressions are located either in existing cleared 24 right of ways or in forested areas not proposed for 25 clearing. Further, nearly all of the significant

1 vernal pool critical terrestrial habitats by the 2 project will remain partially forested and connected 3 by way of forest and/or early successional cover through adjacent forested habitat following 4 construction of the project. These areas will remain 5 traversable by wildlife. As a result, impacts to 6 7 significant vernal pools from habitat fragmentation 8 will be minimal and will not cause unreasonable harm or adverse impact. 9

10 Although deer wintering areas impacted by 11 the project are not considered significant wildlife 12 habitat, CMP has provided adequate provision for the protection of these areas. There are no deer 13 wintering areas intersected by the project that have 14 15 been determined to be high or moderate value. Co-location of the majority of the transmission line 16 have minimized impacts to deer wintering areas 17 18 because fragmentation in these areas already exists. Additionally, IF&W did not recommend mitigation for 19 deer wintering areas in the co-located portions of 20 21 the project because in these areas winter conditions 22 are shorter in duration and snow depth are less of an 23 impediment to deer movement. IF&W determined that proposed corridors totaling 1.1 linear miles with 24 25 vegetation at either full mature height or heights of

up to 35 feet would be adequate to maintain the 1 2 integrity of the Upper Kennebec deer wintering area. 3 Notably, this is the only deer wintering area within 4 the area proposed as new corridor between Moxie Pond and the Canadian border. 5 Additionally, CMP has 6 proposed the preservation of seven tracts of land 7 within the Upper Kennebec deer wintering area in an area that currently has little protection from 8 development, which is further protecting this 9 habitat. 10

11 Shortly following construction and 12 restoration of disturbed areas the right of way will transition to an early successional habitat that 13 remains permeable to wildlife movement. 14 The 15 transmission line right of way will not be a barrier, will not unreasonably impede wildlife movement and 16 will not adversely affect wildlife life cycles. As a 17 18 result, there will be no adverse effect to wildlife and fisheries through habitat fragmentation. 19

To wrap up of the summary of my testimony on hearing issue 2, I'll finish with a discussion of buffer strips around cold water fisheries. CMP has provided adequate provisions for buffer strips around cold water fisheries. CMP consulted with and incorporated the 100 foot riparian buffers for cold

1 water fisheries recommended and determined by the DEP 2 and IF&W that adequately protect wildlife and 3 fisheries. The riparian buffer strips proposed by CMP for the project provide more protection to 4 fisheries resources than the ones that were proposed 5 6 and approved by the DEP in 2010 for the MPRP project. 7 Some of these protective measures include 8 restrictions on herbicide application and refueling and equipment maintenance, requirements for site 9 10 specific erosion and sediment control plans for structures that can otherwise not be sited outside of 11 12 the buffer areas and equipment travel over frozen conditions or on timber mats within the buffers to 13 14 minimize soil disturbance. Notably, compensation was 15 not required by the agencies for cold water fisheries impacts on the MPRP despite clearing of riparian 16 areas associated with both Atlantic salmon and brook 17 18 trout. This suggests that the agencies did not believe canopy removal constituted unreasonable harm 19 20 or adverse effect. 21 Thank you four your time. Lauren Johnston 22 will now present a summary of our testimony on the

24LAUREN JOHNSTON: Thank you, Mark. I'm25Lauren Johnston. I'm a senior environmental

issue four, compensation and mitigation.

23

scientist with Burns and McDonnell. I assisted in
 the state and federal permit applications, the agency
 consultation process and prepared application
 supplements and agency data request responses for the
 New England Clean Energy Connect.

6 CMP's compensation plan achieves a no net 7 loss of the ecological functions and values. The 8 plan is robust, multifaceted and uses a number of compensation methods such as a payment to the DEP In 9 10 Lieu Fee Program, preservation of land that contain 11 regionally significant and natural resources and 12 implementation of a number of wildlife enhancement projects and funding contributions. CMP's plan meets 13 14 and in the case of compensation for wetlands it 15 exceeds the applicable compensation requirements. In total, the compensation plan includes 13 parcels that 16 contain nearly 2,800 acres of land for preservation 17 18 to be placed in conservation in perpetuity, over \$3 19 million to the In Lieu Fee Program to be placed in 20 the Maine Natural Resources Conservation Fund and 21 used for grant awards at the discretion of the 22 administrators, a nearly \$650,000 payment to the Maine Endangered and Nongame Wildlife Fund, a 23 \$200,000 commitment for culvert replacements and a 24 25 \$12 million payment to the Maine Natural Areas

1 Conservation Fund. The total land preservation at 2 over \$5.1 million in monetary compensation 3 requirements, compensation surpasses the requirements set forth in the compensation rules. 4 5 MS. BENSINGER: Could you pull the 6 microphone a little closer for the live-stream --7 LAUREN JOHNSTON: Sure. 8 MS. BENSINGER: -- so it can pick you up? 9 LAUREN JOHNSTON: Sure. 10 MS. BENSINGER: Thank you. 11 LAUREN JOHNSTON: Issue 4 Compensation and 12 Mitigation includes the following subtopics as described in DEP's Second Procedural Order. 13 Compensation and mitigation for cold water fisheries 14 15 habitats, outstanding river segments and wetlands. Projects that are subject to the Natural Resources 16 Protection Act, or NRPA, like the NECEC, are required 17 to provide appropriate and practical compensation to 18 19 resource impacts that cannot be otherwise avoided, minimized or further mitigated. 20 21 First, I'll provide a summary of the 22 compensation and mitigation proposed for indirect 23 impacts to cold water fisheries habitat. Т']] describe how the project will not result in an 24 25 unreasonable disturbance of cold water fisheries

1 habitat. Proposed avoidance and minimization 2 measures include no in-stream work for the purposes 3 of construction, temporary crossings which fully span the resources, implementation of erosion and sediment 4 controls as per CMP's environmental guidelines and 5 6 Maine's Erosion and Sedimentation Control Law, the 7 expansion of buffers and riparian areas to 100 feet 8 for cold water fisheries resources. As demonstrated in our testimony, the project will not adversely 9 10 impact brook trout habitat. Nonetheless, CMP has 11 proposed compensation to address indirect impacts to 12 approximately 11 linear miles of streams.

In a December 2017 information request the 13 14 DEP noted that this mitigation package should 15 compensate for impacts to cold water fisheries, quote, the Department envisions this mitigation 16 package will be the responsibility of CMP to 17 18 implement not simply providing ILF monies. CMP fully 19 responded by proposing a multifaceted package of compensation to mitigate for indirect impacts to cold 20 water fisheries habitat. These include the 21 22 preservation of approximately 12 linear miles of 23 stream on the Grand Falls, Lower Enchanted and basin tracts, which total over 1,053 acres. 24 The 25 contribution of \$180,000 to Maine Endangered and

1 Nongame Wildlife Fund, this contribution will be used at the discretion of IF&W for cold water fisheries 2 habitat enhancement and an implementation of a 3 culvert replacement program, which includes repair, 4 removal or replacement within CMP controlled lands 5 6 during construction as well as a \$200,000 -- as well 7 as \$200,000 of funding to replace culverts on lands 8 outside CMP's ownership. CMP is comitted to working 9 with IF&W and cooperating environmental advocacy 10 groups to identify the most valuable culvert 11 replacement projects to undertake with a goal of maximizing cold water habitat fisheries -- cold water 12 fisheries habitat connectivity. CMP has fully 13 addressed DEP and IF&W's recommendations to provide a 14 15 comprehensive mitigation plan for the minor unavoidable impacts to cold water fisheries habitat. 16 As a result, the indirect impacts associated with 17 18 forest conversion will not unreasonably harm or adversely impact this habitat. 19

20 Next, I'll discuss compensation and 21 mitigation for outstanding river segments. The 22 project crosses five locations that are protected as 23 outstanding river segments. The Upper Kennebec River 24 between West Forks and Moxie Gore, the Kennebec River 25 below Wyman Dam in Moscow, the Carrabassett River in

Anson, the Sandy River in Farmington and the West 1 2 Branch of the Sheepscot River in Windsor. At a 3 considerable expense of approximately \$31 million, CMP has proposed to cross under the Upper Kennebec 4 River using horizontal drill -- directional drill 5 6 technology eliminating project views from the river 7 and preserving the aesthetic and recreational value 8 of this river segment. CMP has minimized impacts to the other four outstanding river segments by 9 10 co-locating within existing rights of way to limit 11 clearing impacts generally to 75 feet. CMP is also comitted to retaining a 100 foot riparian buffer on 12 all outstanding river segments. Only 850 feet of 13 14 outstanding river segment frontage will be impacted 15 by the removal of forested canopy. The Grand Falls, Lower Enchanted and basin tracts preserve -- proposed 16 for preservation contains 7.9 miles of river frontage 17 18 along the Dead River also an outstanding river These parcels offer a wealth of 19 segment. recreational opportunities, which are not limited to 20 21 hiking, fishing, whitewater rafting, wildlife viewing 22 and hunting and also include the protection of the Grand Falls Waterfall, the largest horseshoe 23 waterfall in the state. Impacts to outstanding river 24 25 segments have been minimized to the extent possible

by co-locating in existing rights of way and will not unreasonably impact existing recreational uses of these rivers. The preservation of 7.9 miles of river frontage on the Dead River is nearly 50 times greater far exceeding the 850 feet of river frontage that would be impacted by the project.

7 Next, I'll discuss the compensation and 8 mitigation for wetlands. Recommended compensation 9 for unavoidable impacts to wetlands are quite clear and well-defined under NRPA and under Section 404 of 10 11 the Federal Clean Water Act. The compensation plan addresses both state and federal requirements for 12 both wetland compensation and not only achieves a no 13 net loss of wetland ecological functions and values 14 it exceeds the recommendation -- recommended state 15 and federal compensation amounts or ratios of 16 compensation to impact. Field surveys were conducted 17 18 in all areas of the project to inform CMP's avoidance and minimization of wetland impacts during the 19 20 engineering and design process. Unavoidable 21 impacts -- impact types include the placement of 22 direct fill such as poles and substation development, 23 temporary access roads for construction and forested wetland conversion. The DEP regulates permanent 24 25 wetland fill but does not require compensation for

1 temporary access of forested wetland conversion, 2 however, the Army Corps does. For the purposes of the DEP public hearing, I'll focus on compensation of 3 direct fill, which is relevant to the DEP. 4 The 5 compensation plan addresses the guidance of both 6 agencies, the recommended land preservations --7 preservation ratios differ however. The DEP requires 8 an 8 to 1 ratio whereas the Army Corps requires a 20 9 to 1 ratio of land to wetland impacts. Where ratios 10 differed the higher one was applied. CMP's 11 compensation plan offers a ratio of 30 to 1 for 12 permanent fill and wetland well exceeding both the state and federal recommendations. The Flagstaff 13 Lake, Little Jimmie Pond and Pooler Pond tracts 14 15 proposed for wetland preservation total approximately 1,022 acres of land and contain 510 acres of wetland. 16 There will be -- there will be 4.1 acres of permanent 17 18 wetland fill as a result of placement of transmission 19 poles and substation development. CMP is proposing 20 123 acres of wetland preservation to be used to 21 offset permanent wetland fill impacts. This is a 22 ratio of 30 to 1 greatly exceeding the DEP's 23 preservation ratio of 8 to 1. Temporary wetland impact and forested wetland conversion will also be 24 25 offset by a portion of the 510 acres of wetland as

1 required by the Army Corps. For permanent wetland 2 fill and significant vernal pool and inland wading bird and waterfowl habitats, CMP has chosen to 3 compensate using In Lieu Fee Program. 4 The fees were 5 calculated using the prescribed compensation formula described in DEP's 2017 In Lieu Fee fact sheet with 6 7 the appropriate resource multipliers. The calculated 8 In Lieu Fee for permanent wetland fill associated 9 with significant vernal pools and inland wading bird 10 and waterfowl habitats totals over \$245,000.

11 I'll conclude my discussion related to 12 compensation and mitigation by saying that the project has been designed and sited in a manner that 13 14 avoids and minimizes impacts to the greatest extent 15 possible. Where unavoidable impacts cannot be further mitigated, CMP has proposed a robust and 16 17 comprehensive compensation plan. The plan not only 18 achieves the goal of no net loss, it far exceeds the 19 minimum requirements under NRPA. Thank you.

20 MS. MILLER: Thank you. This is -- so I 21 just want to clarify for the agenda this was the 22 project overview and summary of direct testimony for 23 the Panel 1.

24MR. MANAHAN: Right. And I've discussed25with Mr. Beyer we're reserving the remainder of the

1 time for this panel to go up for the next panel so we 2 won't exceed the total, but I think we've got 3 basically 40 minute reserved for Panel 2. 4 MS. MILLER: Okay. I would propose a 10 5 minute break, so cutting that to 30 minutes, and then

6 we'll go ahead after this 10 minute break, we'll 7 start with cross-examination and we'll just continue 8 through until noon for lunch. We may have to 9 reconsider whether we start the next panel before lunch because we might have to break that up with the 10 11 time, so we'll think that through, but for now, let's 12 take a 10 minute break. We'll start back up at 10 o'clock and we'll start with cross-examination and I 13 14 believe we have Group 1 is going to be the first 15 Intervenor group to cross-examine the Applicant 16 panel. Thank you. 17 (Break.)

18 MS. MILLER: So we'll get started with19 Intervenor Group 1 for cross-examination.

20 MR. WEINGARTEN: Good morning. My name is21 Bob Weingarten.

MS. MILLER: Does the set volume go up on that any more or?

24VIDEOGRAPHER: Yup. I can... Yup.25MS. MILLER: We just need to make sure the

mic works so the transcriptionist can hear, so just 1 bear with us just a second. 2 3 MR. WEINGARTEN: Okay. Well, my name is Bob 4 Weingarten. I'm with a group called Friends of the 5 Boundary Mountains. We're part of Group 1. I am not 6 an attorney. I have never done cross-examination 7 before, so bear with me, but I'm just a citizen who lives in western Maine who loves the woods and loves 8 the wildlife and that's where I'm coming from. 9 So my first set of questions for 10 11 Mr. Goodwin. Mr. Goodwin, I see that you have been 12 an environmental professional for 20 years working with clients primarily with the electrical 13 14 transmission and natural gas pipeline industries; is 15 that correct? MARK GOODWIN: Yes. 16 And these projects that you 17 MR. WEINGARTEN: 18 have worked on in the course of your career are 19 primarily for linear energy development projects; is that correct? 20 21 MARK GOODWIN: That is correct. 22 MR. WEINGARTEN: Okay. And as part of your 23 in environmental assessment for your private clients such as CMP, would you study and analyze the critical 24 25 environmental impacts that these linear development

1 projects have on the landscape, on the environment, 2 on the habitat and the many different species that 3 depend on the habitat?

4 MARK GOODWIN: I'm not sure I understand 5 your question.

6 MR. WEINGARTEN: Well, my question is would 7 you be assessing the environmental risks to those 8 features as part of your job?

9 MARK GOODWIN: Certainly not on every 10 project that I've worked on. I've been tasked with 11 assessing environmental impacts, but I have been 12 responsible for assessing environmental impacts for 13 various projects through the NEPA process.

MR. WEINGARTEN: Okay. And having worked on these linear projects and doing assessments on the linear projects you must have encountered a number of projects that were fragmented or that fragmentation might be part of the issue with that project; is that correct?

20 MARK GOODWIN: This is probably the first 21 project that I've been involved with where the 22 fragmentation topic has taken sort of a more of a 23 front stage, I would say.

24 MR. WEINGARTEN: So you've never actually 25 analyzed fragmentation in any prior projects in your 1 20 years?

2 MARK GOODWIN: Not for any particular 3 environmental report that was produced as part of a 4 permit.

MR. WEINGARTEN: Well, I was wondering if 5 6 you came across a fragmented project or project that 7 might fragment the habitat, would you recommend against proceeding ahead with that project if you 8 9 felt that that fragmentation was significant? MARK GOODWIN: I would recommend mitigation 10 11 for any project that might have an unreasonable 12 habitat fragmentation impact.

MR. WEINGARTEN: But you would never actually say, no, we shouldn't do that because of the fragmentation?

MARK GOODWIN: Depends on whether or notadequate mitigation could be achieved.

18 MR. WEINGARTEN: So you feel that mitigation 19 can somehow take away any of the adverse effects that species and the woods and the environment would 20 21 suffer because of fragmentation? 22 MARK GOODWIN: Can you repeat the question? 23 MR. WEINGARTEN: So you believe that 24 mitigation is the only response to a adverse 25 situation due to fragmentation? In other words, you

would never say after studying all of this as an 1 2 environmental scientist we should not proceed ahead 3 on this? 4 MARK GOODWIN: I mean, the first 5 recommendation would be to try to avoid the impact. 6 MR. WEINGARTEN: But say you can't. MARK GOODWIN: 7 If you can't avoid the impact 8 then you put mitigation or minimization measures in 9 place to make the impact so that it's not going to create an adverse effect or be causing unreasonable 10 11 harm. 12 MR. WEINGARTEN: But you never tell your 13 client, no, don't do it, let's not move ahead on this? 14 15 You know, I can't recall a MARK GOODWIN: specific project where I told a client that I didn't 16 17 believe it was -- yeah, a project that couldn't have 18 minimization measures or mitigation that could offset 19 the impact. 20 MR. WEINGARTEN: So your role is not so much 21 to advise the client as to whether this fragmentation 22 is a real serious issue but just a way of getting it 23 approved? No, I'm a consultant. 24 MARK GOODWIN: My job 25 is to make recommendations to the client to help make

1 their project successful. If I feel like their 2 project is not going to be successful, I'm going to 3 make recommendations to them and measures that they 4 could use to further their project.

5 MR. WEINGARTEN: But as an environmental 6 scientist isn't there a point where you feel that 7 something should not be built?

8 MARK GOODWIN: Well, if you take it to the extreme, yeah, obviously if -- if someone said, all 9 right, well, we're going to build a transmission line 10 11 and we're going to make it a, you know, we're not 12 even going to maintain the right of way in an early successional vegetated state but the proposal is to, 13 14 you know, maintain the right of way as a paved, you 15 know, boundary to boundary feature that stretches for 100 miles, obviously I'm going to say that's not a 16 reasonable impact. So I guess it depends on what 17 18 extremes you want to take it to.

MR. WEINGARTEN: Well, it's -- but the question is what -- it's not the extreme of the project the question is what does the fragmentation do to the habitat, what does the fragmentation do to the wildlife, and you're saying to me that it's just a question of figuring out how to get around it rather than saying, no, don't do it? MARK GOODWIN: This project -- the application that's before the Department is recommending, you know, a certain vegetation management practices or proposing them and that's the application in front of the Department and that's what I'm here to testify on.

7 MR. WEINGARTEN: Well, so speaking about 8 your testimony, on Pages 113 to 114, which is part of 9 the CMP total testimony package, it seems that you 10 try to deflect the serious impact of the habitat 11 fragmentation in Segment 1 by calling attention to 12 how admirable it is that CMP will place other segments of the transmission line in pre-existing 13 14 I want to ask you how will utilizing corridors. 15 existing corridors for other segments eliminate or reduce any adverse impacts whatsoever on the 53 miles 16 of the habitat that is in the most sensitive 17 environmental section of the corridor? 18

19 MARK GOODWIN: Our job is to permit a 20 project and take the impacts as a whole. You can't 21 just focus on one portion of the project over 22 another. So we try to minimize impacts in total and 23 by co-locating we're able to minimize impact in total 24 and by using that co-locating corridor and getting it 25 to a location just north of Moxie Pond it also brings

1 that co-located section to an area that has the 2 shortest distance from the Canadian border back to 3 that existing transmission line. So we look at it --4 we look at it as a whole. 5 MR. WEINGARTEN: Well, it sounds like you 6 were saying let's throw the 53 mile Segment 1 under 7 the bus because we can't do anything about that so we'll just talk about the other segments and how good 8 9 they are. 10 Is that a question? MARK GOODWIN: 11 MR. WEINGARTEN: Yeah. Do you agree with 12 that? 13 MARK GOODWIN: No, I don't. 14 MR. WEINGARTEN: Yeah. Well, okay. Sounds 15 like you were proposing that. 16 MS. MILLER: Let's limit it to questions, 17 please. 18 MR. WEINGARTEN: Excuse me? 19 Please limit it to questions. MS. MILLER: 20 MR. WEINGARTEN: Okay. Well, I want to ask 21 you then about your -- your testimony dealing with 22 forestry activities. In your testimony you seem to 23 try to divert attention from the fragmentation caused by the corridor to talk about the activities of 24 25 the -- of the logging that goes on in this area. Ι

want to ask you, are you aware of the vast difference 1 between temporary forestry activities and the 2 3 permanence of a 53 mile long or linear fragmentation that will exist forever? 4 5 MARK GOODWIN: They're different impacts. 6 MR. WEINGARTEN: Yes, and how come you tried 7 to divert attention to that as a way of pacifying the 8 questions about the fragmentation? 9 MARK GOODWIN: I don't attempt to defer from 10 The transmission line on Segment 1 is routed that. 11 relatively close to existing logging roads and 12 traverses through areas that have been previously If you look at the Exhibits CMP-3.1A and 13 forested. 14 3.1B, you can see that they are -- it's located 15 relatively close to those features as opposed to, you know, I quess what I want to say is these are not 16 intact forest areas. 17 These are not -- because we're 18 closer to these fragmenting features, we're not 19 placing the line in interior forest. Interior forest is forest that has not been influenced by human 20 21 activity. 22 MR. WEINGARTEN: Well, that's a definition 23 of a true wilderness under the United States Wilderness Act. It doesn't necessarily follow that 24

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intact forest has nothing but wilderness in it.

1 MR. MANAHAN: Ms. Miller, I would object to 2 the questioner testifying instead of asking 3 questions. 4 MR. WEINGARTEN: Okay. I'm sorry. 5 MS. MILLER: And I agree with that. Please 6 hold your comments and ask questions. Thank you. 7 MR. WEINGARTEN: Sorry. So I want to direct 8 on this subject your testimony on Page 115 where you 9 claim that CMP's corridor will be promoting, quote, 10 the movement of wildlife across the corridor and 11 increasing habitat connectivity in these areas. 12 Mr. Goodwin, are you aware that the transmission corridor will actually divide many large forest 13 habitat blocks into smaller blocks which will 14 15 compromise habitat for forest specialist species and those that require forest interior habitat? 16 17 MARK GOODWIN: I don't know what you're 18 defining as a large forest block. 19 MR. WEINGARTEN: The existing. 20 MARK GOODWIN: I'm not aware of what that 21 would -- how are you defining a large forest block? 22 MR. WEINGARTEN: Well, I'm asking the 23 questions. 24 MARK GOODWIN: I can't answer that question. 25 MS. MILLER: Can you restate the question so 1 it's a little more clear?

MR. WEINGARTEN: Well, I'm asking the 2 3 question is aren't you aware that the corridor will 4 divide the existing large forest habitat blocks into 5 smaller blocks, which will compromise habitat for 6 forest dwelling specialists? 7 MARK GOODWIN: I don't know. Does anybody 8 else have a answer for that? I'm not sure I 9 understand what you're asking me. Can you -- are you saying that the entire -- I guess I don't understand 10 11 the question. 12 All right. Well, I tried MR. WEINGARTEN: to make it as clear as I could. 13 14 MS. MILLER: Can you try to restate it again 15 so he can answer? MR. WEINGARTEN: We have a corridor that's 16 17 running through an existing large habitat block, 18 won't that create smaller habitat blocks? 19 MARK GOODWIN: There are already smaller 20 habitat blocks in that area. That area is a mosaic 21 of different age/class clearings from the forestry 22 industry. 23 MR. WEINGARTEN: But those are temporary; is that correct? 24 25 They are temporary, but it's MARK GOODWIN:

a constantly changing mosaic, so one area might be 1 temporary for, I don't know, I'm not a forester, but, 2 3 I don't know, 15 or 20 years and then, you know, the 4 next thing you know you have a different area that's 5 open and clear so it's constantly changing up there. 6 MR. WEINGARTEN: And the corridor will be 7 permanent; is that correct? 8 MARK GOODWIN: That's correct. 9 MR. WEINGARTEN: Mr. Goodwin, can you honestly say that the 53 miles of the corridor will 10 11 fit -- will fit harmoniously into the natural 12 environment there? THORN DICKINSON: Is it okay if we follow-up 13 on one specific thing before we go? 14 15 MS. MILLER: Yes. THORN DICKINSON: I was just going to say 16 that, you know, the idea that this transmission 17 18 project will be permanent, you know, is something 19 I've heard, but, you know, that we're expecting a 40 year life related to this project. No one knows what 20 21 technology is going to change in the future, whether 22 that project at the end of that 40 year life is going 23 to continue or not. Eventually the project is going to be decommissioned, the poles will be taken up, the 24 25 wire will be rolled up and --

1 MS. BOEPPLE: Ms. Presiding Chair, I'm going 2 This is way beyond the scope of the to object. 3 hearing topics and I believe this is an attempt at 4 CMP to get in testimony that is not relevant on 5 what's supposed to be before the Department today. 6 MR. MANAHAN: The witness is answering the 7 question that was posed. 8 Actually, no, he's not. MS. BOEPPLE: The 9 question that was posed was to the environmental --10 MR. MANAHAN: Well, this is a panel. This 11 is a panel and the panel is responding to questions 12 and the questioner asked whether the transmission line would be permanent and Mr. Dickinson is on the 13 panel which is answering questions. 14 15 MS. MILLER: I'm going to deny the objection because the question -- the question pertained to the 16 17 permanence of the line and the impact and they were 18 just trying to -- what I understood was they were 19 just trying to answer that question. So go on. So 20 Mr. Weingarten --21 MR. WEINGARTEN: Can I qo on? 22 MS. MILLER: Yes, please. 23 MR. WEINGARTEN: Well, this is also to Mr. Goodwin. Mr. Goodwin, in your testimony you 24 25 spend a great deal of time extolling the virtues of

1 something called integrated vegetation management, 2 IVM, as a standard practice within utility right of 3 ways and this is practice that's done after the 4 corridor is built, after everything is finished is 5 how you maintain the corridor as I understand it; is 6 that correct?

7 MARK GOODWIN: Partially. The -- you know, 8 the vegetation -- the project submitted a vegetation clearing plan, it's Exhibit 10-1 of the Site Law 9 application, which defines the practices that will be 10 11 used to clear -- do the initial clearing of the right 12 of way and there is protective measures in that document. And then, yes, the IVM is management 13 14 primarily after construction.

MR. WEINGARTEN: Yes, and so since there's management after construction, why is it placed in your testimony as a way of trying to explain that there is no fragmentation because you have this yegetation management plan?

20 MARK GOODWIN: I don't believe that it --21 that it's in the application to explain that there 22 won't be -- or in my testimony to explain that there 23 won't be fragmentation. It's in there to show that 24 there are practices that can help to promote wildlife 25 connectivity with this type of activity and soften 1 that fragmentation effect.

MR. WEINGARTEN: But isn't this kind of like 2 3 extolling the virtues of a closed barn door after the cows have left? 4 5 MS. MILLER: Can you... MR. WEINGARTEN: Well, in other words, we're 6 7 talking about how the corridor will be maintained 8 under the concept of this is how we minimize 9 fragmentation, but this is after the fragmentation is 10 on the ground; is it not? 11 MARK GOODWIN: Yes. 12 MR. WEINGARTEN: It is. So the integrated vegetation management really does not pertain to 13 14 protecting or minimizing fragmentation; is that 15 correct? 16 No one is arguing that the MARK GOODWIN: 17 project won't have some level of impact. Innovative 18 vegetative management is and vegetation practice to 19 minimize those impacts. 20 MR. WEINGARTEN: I'm bringing this up 21 because in your testimony under fragmentation you are 22 trying to say all of the reasons why CMP will not 23 really cause fragmentation or minimize fragmentation and you use integrated vegetation management as one 24 25 of your arguments and I am asking you the question as

to isn't this like saying that we have a plan after 1 2 the barn door is already open and the cows have 3 escaped because the fragmentation is already done; is that correct? 4 5 MARK GOODWIN: It's a management technique 6 to allow minimization of impacts to wildlife 7 habitat. 8 MR. WEINGARTEN: Well, you also extol the 9 management practice of integrated vegetation 10 management to say that it promotes the development of 11 early successional scrub/shrub habitat growth; is 12 that correct? 13 MARK GOODWIN: That's correct. 14 MR. WEINGARTEN: And are you aware that 15 early successional habitat is already abundant in this region? 16 17 MARK GOODWIN: I mean, IVM promotes early 18 successional habitat. You have to take it into 19 context as to how that's being used, you know, we're 20 promoting that vegetation type in the corridor. It's 21 not to promote an increase in that habitat for the 22 entire region. It's just to manage that in the right 23 of way. 24 MR. WEINGARTEN: But how can -- I asked you 25 how can early successional habitat be considered a

good step environmentally or habitat-wise when there 1 is so much of it already there, isn't this not really 2 3 a benefit for the landscape and the environment? 4 MARK GOODWIN: In the context of the project 5 that's being proposed it is a benefit because it's 6 going to minimize the impacts. 7 MR. WEINGARTEN: But it's -- but it will 8 take away vegetation that would be a lot more desirable there; is that correct? 9 10 MARK GOODWIN: Desirable? 11 MR. WEINGARTEN: For the habitat and for the 12 forest dwelling species. MARK GOODWIN: I think it's obvious that, 13 14 you know, the ideal situation for certain habitats is 15 probably forested cover, but this project is proposed for a certain purpose and, you know, what comes with 16 that is proposals to avoid, minimize and mitigate and 17 18 that's what we've done and that's what part of this 19 IVM is part of. Well, on Page 116 of your 20 MR. WEINGARTEN: 21 testimony you claim that this type of vegetation 22 management will create something you call a soft edge 23 and you tried to explain the soft edge by comparing it to building impervious surfaces such as roads or 24 25 residential development and trying to say that this

type of edge effect is much better than building 1 2 roads or residential development; is that correct? 3 MR. MANAHAN: Ms. Miller, can I just ask, 4 the question is referring to Page 115 of 5 Mr. Goodwin's testimony and I'm not clear what he's 6 talking about. 7 MS. MILLER: I think maybe -- I'm thinking 8 it might be Page 17 of his testimony at the bottom. 9 It's the last paragraph on Page 17 of his direct testimony which talks about CMP's best management 10 11 practices will avoid the hard edge impact, is that 12 what you're referring to? 13 MR. WEINGARTEN: Yes, that's what I'm 14 talking about. 15 MR. MANAHAN: Thank you. 16 MR. WEINGARTEN: So what I am asking you is 17 you are comparing the so-called soft edge that you're 18 trying to create with how much more it could be 19 damaged if there was roads being built or other kinds of impervious surfaces; is that correct? 20 21 MARK GOODWIN: Can you ask the question aqain, please? 22 23 Your proposal -- I mean, MR. WEINGARTEN: 24 you're claiming that CMP's proposed development will 25 not create a hard edge, that is the changes in

1 habitat is primarily restricted to a change in 2 vegetation cover type from forested to scrub/shrub as 3 opposed to the permanent removal of habitat. You say 4 that it's better than creating impervious surfaces associated with residential and commercial surfaces; 5 is that correct? 6 7 MARK GOODWIN: Correct. 8 So I'm asking you would it MR. WEINGARTEN: 9 be more relevant and more straightforward to compare 10 the impacts of the fragmentation caused by the 11 corridor to the natural condition of no fragmentation 12 in the habitat rather than to the hypothetical building of roads or other impervious surfaces, would 13 14 that be more honest and direct and straightforward? 15 To compare the impact of --MARK GOODWIN: MR. WEINGARTEN: Of the edge. 16 17 MARK GOODWIN: -- soft edge management 18 techniques to what currently exists? 19 MR. WEINGARTEN: Yes. Yes. 20 MARK GOODWIN: I don't know that you can 21 really make a comparison other than one has a soft 22 edge fragmentation and one has no fragmentation other 23 than, you know, those land uses that have already fragmented the habitat. 24 25 MR. WEINGARTEN: And that would be a much

1 more viable comparison; would it not? MARK GOODWIN: Viable in what sense? 2 In that it would reflect 3 MR. WEINGARTEN: 4 the actual thing that is happening in terms of building a corridor where there is no corridor rather 5 6 than saying, well, we could have built an impervious 7 road like a residential development so look how much 8 better this is, which is what you're saying, I think, 9 right? 10 MARK GOODWIN: No. No. I'm simply saying 11 that management of right of ways using innovative 12 vegetation management practices or the management practices that CMP has proposed is a soft edge as 13 14 opposed to an abrupt edge like a commercial 15 development that has no vegetative features. They're 16 two completely separate concepts. 17 MR. WEINGARTEN: Does your testimony have 18 any comparison with what exists now? 19 MARK GOODWIN: I'd have to read through my 20 testimony to answer that. 21 MR. WEINGARTEN: I don't think it does; is 22 that correct? 23 Again, I'd have to read MARK GOODWIN: 24 through my testimony. 25 Ms. Johnston, I'd like to MR. WEINGARTEN:

ask you a question, if I may. I'd like you to 1 imagine that you're an endangered species and someone 2 3 has come along and said, well, we're going to destroy 4 your habitat but we're going to put a couple of thousand dollars into a fund managed by some state 5 6 bureaucrats and that will be okay, right? I mean, 7 that's a good thing to do, right? Right, Ms. 8 Johnston? 9 LAUREN JOHNSTON: I don't understand your question. 10 11 MR. WEINGARTEN: My question is how does endangered species or threatened species get helped 12 or have their habitat preserved by putting money into 13

14 an endangered species fund for some other extraneous 15 reasons?

16 LAUREN JOHNSTON: The In Lieu Fee Program is 17 a program administered by the Department and put into 18 fund for grant projects that will be used to protect 19 natural resources or enhancement projects.

20 MR. WEINGARTEN: Would it be help -- would 21 it help the endangered species in the area where the 22 corridor is going to be built?

LAUREN JOHNSTON: I am not aware of where
the funding will be appropriated at this time.
MR. WEINGARTEN: Neither am I. I guess I

want to move on to Mr. Mirabile, if I may. And I'm 1 2 going to ask some questions about the scenic impact 3 that concerns the Old Canada Road, okay. So in Volume 1 of the application, Page 24, Line 14, CMP 4 5 acknowledges the presence of the Old Canada Road 6 National Scenic Bypass, I mean, Byway and claims that 7 the corridor has been located to minimize scenic impacts from this federally designated travel route; 8 is that right? 9

10 GERRY MIRABILE: That is what the 11 application says, yes.

MR. WEINGARTEN: So, Mr. Mirabile, are you aware that locating the corridor over the highest ridge line in the area, which is Coburn Mountain, does nothing to minimize the scenic impact from north to southbound traffic on the Old Canada Road?

GERRY MIRABILE: I don't believe the project is located on the ridge line of Coburn Mountain. And one mitigation measure for visibility from Route 201 is to orient the project perpendicular so that the amount of time it's viewable from Route 201 is minimized.

23 MR. WEINGARTEN: Well, is it true that you 24 have no plan to minimize the views where the line 25 crosses the Old Canada Road in Johnson Mountain 1 Township?

2	GERRY MIRABILE: Yeah, we have proposed a
3	buffer planting plan at the Route 201 crossing in
4	Johnson Mountain Township.
5	MR. WEINGARTEN: You have?
6	GERRY MIRABILE: Yes, we have.
7	MR. WEINGARTEN: I want to ask you then,
8	does does not placing the corridor through
9	existing conditional forest land used by many
10	different people jeopardize the use and experience of
11	the Maine woods and does that not conflict with the
12	NRPA Chapter 315, Page 1, which states that the
13	Applicant must demonstrate that a proposed activity
14	will not unreasonably interfere with existing scenic
15	and aesthetic uses; in other words, is there a
16	conflict there?
17	GERRY MIRABILE: I don't agree that there is
18	a conflict. I think the project starts out at the
19	planning stage and then the location stage where the
20	route itself, as Mr. Dickinson defined earlier, was
21	defined in part by avoiding those areas most
22	sensitive in terms of recreation and visual aspects
23	and when we avoided those areas and we looked also at
24	avoiding impacts to other resources. So the first of
25	the three sort of criteria are avoidance, which we

have done from the very beginning of the project, 1 2 planning location and design and then we look at 3 minimizing impacts by working around them by minor or micro-rerouting and then we compensate for 4 5 unavoidable impacts and I believe we have done all three of those as well. 6 7 MR. WEINGARTEN: Including --8 MS. MILLER: Mr. --9 MR. WEINGARTEN: Including unavoidable impacts? 10 11 GERRY MIRABILE: Including unavoidable 12 That's what we mitigate for. impacts. Mr. Weingarten, you have four 13 MS. MILLER: 14 minutes left in your testimony. 15 MR. WEINGARTEN: Okay. 16 MS. MILLER: Oh, sorry, cross-examination. 17 Well, are you aware that MR. WEINGARTEN: 18 the tops of the metal towers will be visible along 19 the entire length of the Spencer Road? 20 GERRY MIRABILE: I know that the tops will 21 be visible from certain locations along its route. 22 MR. WEINGARTEN: Are you aware that when the 23 abutting landowners cut the timber to the corridor property line entire poles, concrete foundations and 24 25 the line will be exposed?

GERRY MIRABILE: What the abutting property 1 2 owners do is not something that CMP has any control 3 over. MR. WEINGARTEN: You don't have control, but 4 5 did you anticipate that or factor that in your scenic 6 mitigation work? 7 GERRY MIRABILE: As Mr. Goodwin noted, it's 8 a continuing changing mosaic of cuts, clearcuts and 9 you can anticipate that the things that are visible now may not be visible in the future and vice 10 11 versa. 12 Well, have you considered MR. WEINGARTEN: the possibility of minimizing the visual effect of 13 14 the project for the length of the Spencer Road by 15 placing the transmission line in the center of the 300 foot ownership that you have resulting in a 75 16 foot vegetated buffer on each side? 17 18 GERRY MIRABILE: Can you repeat the question, please? 19 20 MR. WEINGARTEN: Yes. Are you aware -- I 21 mean, has CMP considered minimizing the visual effect 22 of the project for the length of the Spencer Road by 23 placing the transmission line in the center of the 300 wide right of way and in that way having a 75 24 25 foot vegetative buffer on either side?

1 GERRY MIRABILE: Early on in the process in 2 the DEP review process we were asked to evaluate whether the north or the south side of the 300 foot 3 corridor had greater impacts in terms of resources 4 that would be encountered. We did that evaluation 5 and determined that the south side had the fewer 6 7 impacts overall, which means that we oriented on the 8 southern 150 feet rather than the northern. To move it to the north at this point would entail additional 9 impacts in our view. 10 11 MR. WEINGARTEN: But you never thought about 12 putting it in the middle? I don't believe we 13 GERRY MIRABILE: 14 considered that option. 15 MR. WEINGARTEN: So in other words, by clearing the whole property the whole long corridor, 16 17 there is no way that you could minimize with a buffer on either side? 18 There are existing buffers 19 GERRY MIRABILE: based upon existing adjacent land uses and those will 20 21 come and go as clearing is done and we are proposing 22 tapering to create buffers within the corridor in 23 certain areas. MR. WEINGARTEN: Well, if I may ask, as 24 25 shown on the exhibit that the Old Canada Road

1 submitted there was publicly owned land and land 2 purchased for public use, about 16,000 acres of the 3 Leuthold Preserve, which abounds the west of the Old Canada Road accessible only through the Spencer Road, 4 travelers and residents use this road exclusively for 5 6 traditional recreation to two very popular hiking 7 destinations are Tumbledown Mountain and Number 5 Mountain for which have sweeping views of the Maine 8 9 woods. Is it not true that the application contains no remedy or attempt to or reduce the destructive 10 11 scenic impacts of this 100 foot plus commercial 12 structure from these elevated viewpoints? GERRY MIRABILE: I don't believe that's 13

14 accurate. The average height of the structures to
15 begin with is around 94 feet, somewhat less than 100.
16 And the routing from the beginning was intended to
17 reduce and avoid impacts to scenic resources while at
18 the same time meeting the need to get from the Canada
19 border to Section 222 in The Forks.

20 MR. WEINGARTEN: So you had to compromise in 21 other words?

22 GERRY MIRABILE: There were choices and 23 decisions made along the route to avoid certain 24 resources.

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MS. MILLER: Mr. Weingarten, I'm going to

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have to ask to you wrap up your testimony -- I mean, 1 2 your cross-examination, sorry. 3 MR. WEINGARTEN: Okay. It was 4 cross-examination, I hope. 5 MS. MILLER: Yes. 6 MR. WEINGARTEN: Okay. Thank you. 7 MS. MILLER: Thank you. So now we'll call 8 up Groups 2 and 10. 9 And just a reminder that the MS. BENSINGER: time allotments for cross-examination were given as a 10 11 block to allocate between Panel 1 and Panel 2 as you 12 choose. So in the note on the bottom of Page 1 of the schedule, keep in mind that, you know, the 85 13 14 minutes allotted is for both panels. 15 MS. BOEPPLE: Good morning. Can you hear Good morning. My name is Elizabeth Boepple and 16 me? I represent the Intervenors in Group 2, West Forks 17 18 Plantation, Town of Caratunk, Kennebec River Anglers, Maine Guide Services, Hawk's Nest Lodge and Mike 19 Pilsbury and one Intervenor from Group 10, Ed Buzzell 20 and all of them have been admitted into these 21 22 proceedings before the Department. 23 Good morning, Mr. Dickinson. THORN DICKINSON: Good morning. 24 My first 25 questions are for you, but as we go along if it's

appropriate for others on the panel to respond, 1 2 please feel free to jump in. 3 THORN DICKINSON: Thank you. 4 MS. BOEPPLE: So do you have your pre-filed 5 testimony in front of you? 6 THORN DICKINSON: Yes. 7 MS. BOEPPLE: So on Page 3 you describe the 8 location of the project. So if you could go to Page 9 3, please. And if you could please read the line beginning with the majority of the project. 10 11 THORN DICKINSON: The majority of the project will be constructed adjacent to existing 12 transmission lines in existing transmission corridors 13 14 owned by CMP with the remainder constructed on 15 commercial forest land owned or controlled by CMP. Thank you. Now, is the area 16 MS. BOEPPLE: you are describing as commercial forest land, is that 17 18 the first segment of the route? 19 THORN DICKINSON: From The Forks to the 20 Quebec border. 21 MS. BOEPPLE: So that's the 53 miles? 22 THORN DICKINSON: Correct. 23 Okay. And can you tell me how MS. BOEPPLE: vou would define a commercial forest? 24 25 THORN DICKINSON: It's a working area that

is used for forest products utilization where you'll 1 see logging roads and various areas with different 2 stages of cutting. 3 4 MS. BOEPPLE: Stages of cutting. Do you see installation of industrial structures? 5 6 THORN DICKINSON: There are various lay down 7 areas, hosting areas for the equipment that need to 8 be done. I would probably put those into the 9 industrial category. 10 MS. BOEPPLE: But does that include 11 installation, actually permanent planting in the 12 ground an industrial structure typically? 13 THORN DICKINSON: I would assume so, but, you know, off the top of my head, I don't remember 14 15 specifically if there are any permanent structures that the logging and forest project companies use in 16 that area. 17 18 MS. BOEPPLE: So is it CMP's position that 19 by locating a transmission corridor in a commercial forest that that's a similar kind of impact on the 20 21 environment? 22 THORN DICKINSON: Yeah, there are many 23 similarities. I think, you know, they -- just come to mind is the bridges too. There are obviously 24 25 bridges along these logging loads and trails, but I

1 think the ultimate goal in trying to lay out the project would be, number one, try to utilize existing 2 3 corridors as much as possible and then places where you don't have an existing corridor to try to find 4 areas that avoid those scenic and visual impacts, 5 6 those environmental impacts as much as possible and 7 we believe that a corridor like this is a -- would be a more of a similar type. 8

9 MS. BOEPPLE: So I believe -- I believe it 10 was Mr. Goodwin who stated during a summary -- the 11 summary of his testimony that there was an attempt to 12 locate this corridor in close proximity to logging 13 roads, one of you made that statement, was that you, 14 Mr. Goodwin?

MARK GOODWIN: Yes.

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16 MS. BOEPPLE: And you said that was a form 17 of avoidance or mitigation in some fashion?

18 MARK GOODWIN: It's a minimization measure 19 by placing it close to already existing fragmented --20 fragmenting features.

21 MS. BOEPPLE: Okay. So is it fair to say 22 that CMP is comparing logging roads to a transmission 23 corridor cut through a forest?

24 MARK GOODWIN: I mean, they're certainly not 25 the same thing.

1 MS. BOEPPLE: You seem to be indicating that 2 there is not a comparison there because somehow 3 that's going to minimize the impact of the transmission corridor, isn't that what you were 4 5 saying? I mean, if I'm wrong, correct me. 6 MARK GOODWIN: It minimizes in the sense 7 that instead of going through, you know, having the 8 transmission line sited through a forest that doesn't 9 have any nearby roads or extensive cutting. Does 10 that answer your question? 11 MS. BOEPPLE: If what? If it doesn't do 12 that -- I'm sorry. It meant by placing -- by 13 MARK GOODWIN: 14 placing it close to existing fragmentation features 15 and in areas that are routinely disturbed by the forest products industry it minimizes the impact as 16 opposed to putting it in an area that doesn't have 17 18 any nearby logging roads or cutting. 19 MS. BOEPPLE: Okay. And so CMP's position is that this corridor with industrial structures that 20 21 are planted in the ground, which, I mean, you have to 22 admit you're going to put poles in this corridor, 23 Steel poles are going in this corridor, yes correct? 24 or no? 25 MARK GOODWIN: Yes.

MS. BOEPPLE: Okay. You're saying that 1 2 that's the same impact as a logging road; is that 3 correct? 4 MARK GOODWIN: No. A logging road isn't 5 vegetated. 6 MS. BOEPPLE: So that's -- and therein lies 7 the similarity that it's the lack of the vegetation 8 and not the additional structure that's added to the 9 corridor? MARK GOODWIN: 10 Is that a question? 11 MS. BOEPPLE: I'll move on. 12 MARK GOODWIN: Okay. Mr. Dickinson, can we go back 13 MS. BOEPPLE: 14 to your testimony, please, on Page 3 --15 THORN DICKINSON: Yes. 16 MS. BOEPPLE: -- where you're discussing the 17 purpose of the project. And do you see where on Page 18 3 you talk about the selection of this project under 19 the Mass RFP? 20 THORN DICKINSON: Just so we're looking at 21 the same place, where specifically are you referencing? 22 23 MS. BOEPPLE: I may be looking at your 24 rebuttal testimony. Do you have your rebuttal 25 testimony in front of you?

1 THORN DICKINSON: Yes. MS. BOEPPLE: Okay. I believe it's on Page 2 3 of your rebuttal testimony. 3 4 THORN DICKINSON: Okav. 5 MS. BOEPPLE: And you see where you're 6 discussing the Massachusetts RFP? 7 THORN DICKINSON: Again, just to avoid any 8 confusion --9 MS. BENSINGER: Actually, it's in the direct. The beginning of the last paragraph on Page 10 11 3 of the direct. 12 MS. BOEPPLE: Okay. Thank you. THORN DICKINSON: So we -- here we're 13 14 talking about the response to the Massachusetts RFP? 15 MS. BOEPPLE: Correct. 16 THORN DICKINSON: I see now. 17 MS. BOEPPLE: Okay. And does your testimony 18 say that -- could you read what you have stated with 19 the line that begins this route is shorter? 20 THORN DICKINSON: It's above -- I'm sorry. 21 So above you're saying this route is shorter than other routes for deliveries from Quebec to New 22 23 England and represents the lowest cost path for 24 delivery of clean energy from Quebec. 25 MS. BOEPPLE: Right. And is it your

1 testimony that that's why this project was selected? THORN DICKINSON: I think there were a 2 3 number of reasons. The analysis that the Massachusetts EDCs selected looked at the various 4 5 costs and benefits associated with the project and 6 selected the project with the overall best 7 combination of cost and benefits. 8 MS. BOEPPLE: Okay. So if I could pull up 9 Group 2 C-1, please. The first image. I'm showing you a comparison of three projects. One of them is 10 11 obviously your project on the far right, the one in 12 the middle is the Northern Pass project and the one on the left is the Vermont Clean Power Link. Are you 13 familiar with this -- these -- all of these --14 15 obviously you're familiar with your own, but are you also familiar with the Northern Pass and the Clean 16 17 Energy Connect? 18 THORN DICKINSON: Yes, I am. 19 MS. BOEPPLE: I believe those were all 20 mentioned in your testimony. CMP has talked about 21 the different projects that you were competing 22 against? 23 THORN DICKINSON: That's correct. MS. BOEPPLE: And I'd like you to just note 24 25 that the Northern Pass project, which was picked

1 first before your project was actually a more 2 expensive project. Do you see that? 3 THORN DICKINSON: Well, this is the -- this 4 is the publicly available information? 5 MS. BOEPPLE: Yes, it is. 6 THORN DICKINSON: And I'll tell you that --7 and I do believe that both of those projects were 8 more expensive than this project. 9 MS. BOEPPLE: And yet the Northern Pass was the one that was chosen first, correct? 10 11 THORN DICKINSON: Yeah, my estimation of why 12 that project was built first was that --Well, it wasn't built. 13 MS. BOEPPLE: 14 I mean, it was picked. THORN DICKINSON: 15 Thank you. It was picked first because it Sorry. had an earlier expected in-service date and when the 16 valuation team reviews projects like these, they'll 17 18 do them generally on a net present value basis and if there are benefits that occur earlier sometimes that 19 can outweigh the fact that it's own cost may be more 20 21 expensive. 22 MS. BOEPPLE: So what I'm curious about 23 though is that Northern Pass was selected and the route is approximately the same length as your 24 25 proposed project, correct?

1 THORN DICKINSON: It's a little bit longer, 2 but. 3 MS. BOEPPLE: Okay. And the Northern Pass 4 project has a segment that is approximately 52 miles 5 in length that was going to be buried, were you aware of that? 6 7 THORN DICKINSON: Yes, I am. 8 MS. BOEPPLE: And your project, you have 9 represented and testified that the northern stretch 10 of this project can't be buried because it's cost 11 prohibitive, correct? 12 So I'm happy to talk in THORN DICKINSON: detail about my rebuttal testimony and the impacts 13 associated with this if this is the right time. 14 Ι 15 know that we're also coming back --MS. MILLER: We'd like to hear it today and 16 17 at the next --18 THORN DICKINSON: Great. 19 MS. BOEPPLE: And if I could, before you 20 continue, I'm going to ask that -- I'm not waiving my 21 right to make objections to the rebuttal testimony 22 and I'm also not waiving my requested additional time 23 for the next hearing date on this topic. MS. BENSINGER: And one other question, are 24 25 you going to offer that as an exhibit to be admitted?

MS. BOEPPLE: Yes. This is part of some 1 additional slides that are part of... 2 3 MS. BENSINGER: And do you have paper copies of those? 4 5 MS. BOEPPLE: I have paper copies of this, 6 And I can distribute those. yes. 7 MS. BENSINGER: Can we do that now? 8 MR. MANAHAN: Could I just say Ms. Boepple 9 reserved her right to object to this witness, but she's past the deadline for that. The April 19 10 11 deadline is the deadline to object to new rebuttal 12 witnesses, not current direct testimony. 13 MS. BENSINGER: That's correct. 14 Thank you. MR. MANAHAN: 15 MS. BOEPPLE: And that's what I was 16 referring to. 17 So the parties will have a MS. BENSINGER: 18 couple minutes to look at this proposed exhibit. Ιf 19 you could just hold off for a minute while the 20 parties look at it. 21 MR. MANAHAN: Could we just ask, it appears 22 that this exhibit was prepared by staff Michael 23 Fisher and it contains several descriptions of these other -- these other projects. We don't know who 24 25 this person Michael Fisher is or where he got his

1 information.

2	MS. BOEPPLE: All of the would you like
3	me to respond? All of the information is public
4	information and it was a compilation that was done by
5	staff at the Society for the Protection of New
б	Hampshire Forests in conjunction with the Northern
7	Pass hearing. Each one of the maps was taken from
8	information, again, it was publicly available as well
9	as all of the data that's incorporated within this.
10	It was simply pulling three maps together into one
11	compilation.
12	MR. MANAHAN: Okay. Well, we would just put
13	on the record our objection to this because we don't
14	have the ability to cross-examine the person that
15	prepared this so that we can't find out whether this
16	information is accurate or not, but I just want to
17	say that for the record.
18	MS. BENSINGER: Do you want to respond to
19	that?
20	MS. BOEPPLE: Yes. I'm not submitting this
21	and saying that the data is 100 percent accurate. I
22	think it's common knowledge and it's out there in the
23	public realm. The general numbers that have been
24	used to both describe the length and the terrain that
25	these three different projects propose as well as the

1 monetary figures, so I'm not trying to get this in as 2 proof positive of any one of these projects. I'm 3 simply using it as a comparison chart to solicit some 4 answers to some questions from your panel.

Well, I would just -- I would 5 MR. MANAHAN: 6 just say it's not general knowledge what the length 7 of these corridors -- my understanding is you're 8 introducing this as -- in order to cross-examine Mr. Dickinson in respect -- with respect to his rebuttal 9 testimony and to impeach him, I quess, with respect 10 11 to the length of these corridors. And so the fact 12 that this document contains the lengths of these corridors, and I don't know whether this is accurate 13 14 and we haven't heard anyone who can testify that it's 15 accurate, and to these grounds be excluded, but I have an objection. 16

MS. BENSINGER: I would recommend that with
Ms. Boepple's caveats the Presiding Officer admit it.
MS. MILLER: I'll allow it.
MS. BOEPPLE: Thank you. Have you had an

21 opportunity to take a look at this, Mr. Dickinson?

THORN DICKINSON: Yes, I have.

MS. BOEPPLE: Okay. So --

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24 MR. MAHONEY: Can we just get a sense of 25 when -- what date these maps were because these

projects, particularly the Northern Pass project changed over time, so I assume this is not as initially proposed, but this is post site evaluation committee hearing or --MS. BOEPPLE: No. MR. MAHONEY: -- pre-site evaluation committee? MS. BOEPPLE: Sure. MR. BUXTON: Excuse me --I'm sorry, could you identify THE REPORTER: yourself, please? MR. MAHONEY: Yes, I'm sorry. Sean Mahoney, Conservation Law Foundation. THE REPORTER: Thank you. Tony Buxton for the MR. BUXTON: International Energy Consumer Group. Could I be heard, please? If this proceeding is to compare in any way this project with other projects, we would request that there be witnesses who are expert in those projects to support the data which is suggested because the analysis is completely worthless without

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22 having the accurate data. Some of the parties in 23 this room, including us, have been in proceedings 24 where we've had that information and as the gentleman 25 from the Conservation Law Foundation points out the information changed dramatically in the proceedings
 pertaining to those particular projects. We need
 accurate data. Thank you.

MS. BENSINGER: A couple of things. 4 One, I 5 would ask that the spokesperson for each group be the 6 person making objections or asking questions 7 pertaining to objections. But I would recommend to 8 the Hearing Officer that the proposed exhibit be 9 admitted for the purposes of discussion and cross, but obviously the lack of witnesses testifying to the 10 11 specifics would go to the weight it would be given.

MS. MILLER: So I'll allow it for thatpurpose.

MS. BOEPPLE: Okay.

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MS. MILLER: We do need to number this exhibit, so I'll just throw that this will be Group 2 Cross 1.

18 MS. BOEPPLE: Thank you. Okay. So, 19 Mr. Dickinson, you've had an opportunity to look at 20 this and I'll go back to the question that I asked 21 originally before distributing the copies and that is 22 assuming that this information is accurate or roughly 23 correct the Northern Pass project was going to cost approximately \$1.4 billion and it included a third of 24 25 the corridor buried. If you will take that as an

assumption and talk a little bit about comparing it 1 2 to your project, could you explain to me how it is 3 that a corridor that you are proposing that's a little bit shorter but has no underground route is 4 going to be, I mean, obviously it's less expensive 5 6 but how it could be that proposing a similar length 7 in your corridor would put the project cost so high 8 that you couldn't do the project, which I believe is what your rebuttal testimony said. 9

10 THORN DICKINSON: It is. And so we have a 11 valuator report that was completed as part of the 12 evaluation and the column that existed for all ranked projects was available and that I had a column in it 13 14 that was the levelized dollar per megawatt hour benefits associated with each of the different 15 proposals. So with that piece of information we can 16 then evaluate what it -- what the additional cost 17 18 would reflect to and our overall ranking. And so 19 we're, again, the evaluator report was after Northern Pass had already been removed, so the subsequent 20 21 evaluator report had us ranked number one. If you 22 put the costs of underground in just the 53 mile 23 portion, our rank would drop from one -- first to nineth. 24

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MS. BOEPPLE: So assuming that's all correct

and I -- and I only make that statement because I 1 have not had an opportunity to really dig into that 2 3 report in your rebuttal, but I'm going to ask you then how is it that the third project illustrated 4 here, which is estimated at a \$1.6 billion, which has 5 6 already been permitted, and the majority of that 7 route is buried not only underground but under the water. How is it -- I'm still trying to understand 8 these numbers. I'm trying to understand how it is 9 that it's so expensive for CMP to do this in Maine, 10 11 but somehow Eversource could do it in New Hampshire and the Clean Power Link could do it in Vermont. 12 That's what I'm asking --13 MR. MANAHAN: Ms. Miller, I would object. 14 15 She's testifying. She's not asking a question. Ιf she could ask a question of the witness as opposed to 16 saying how she feels or what she would like to 17 18 understand that would be helpful. MS. BOEPPLE: I'm grappling with 19 understanding the information. Do you have a -- can 20 21 you answer my question? 22 THORN DICKINSON: So the first thing is we 23 don't know what they bid. So publicly, the Vermont project, the project in New Hampshire could have 24 25 publicly said any number that they had wished. In

addition, the capital cost isn't the only important 1 aspect of the project. Property taxes, operating 2 3 costs, different payments that were made to communities in order to site the project all are 4 5 going to go into the overall cost. So just looking 6 at the capital related cost isn't an appropriate way 7 to consider the overall impact. You have to look at the whole cash flow of the whole revenue requirement 8 from the project which includes much more than just 9 capital. And then secondly, the time associated with 10 11 these projects, so when -- when is the expected 12 in-service date for these projects. So if a project is providing net benefit, the earlier those projects 13 provide net benefits, the higher the net present 14 value benefit will be and those -- all those factors 15 go into the overall evaluation. 16 17 MS. BOEPPLE: And it is correct that you 18 didn't do this evaluation when you submitted the

19 application for this project?

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20 THORN DICKINSON: When you say this 21 evaluation, could you just --

22 MS. BOEPPLE: The evaluation that's part of 23 the rebuttal testimony that you filed just days 24 before these hearings began.

THORN DICKINSON: So the -- the specific

analysis where we measured the -- our estimated cost 1 2 from a full -- fully kind of engineered solution of 3 underground and then the recalculation obviously we didn't have the evaluator's report at the time we bid 4 5 was done in my rebuttal testimony, that's correct. 6 MS. BOEPPLE: So at the time of the PUC 7 hearings when you testified that you didn't have 8 information about the cost that was correct? 9 THORN DICKINSON: Are you -- are you pointing to me to a specific quote? I -- just to 10 11 make sure we have it right. MS. BOEPPLE: Yes. And I believe it's in 12 NextEra's -- an exhibit that's part of NextEra's... 13 14 A portion of the transcript --15 MS. BENSINGER: You'll have to point us to 16 what you're referring to. 17 MS. BOEPPLE: Well, there is a couple of 18 places where it's in the record. One is in the Group 19 2's exhibit, which was a transcript from the PUC hearings. We cited part of that in our motion to 20 strike. And it's also an exhibit -- could you help 21 22 me out with the exhibit? 23 MS. TOURANGEAU: I believe it's NextEra, Chris Russo Exhibit 1. That exhibit is labeled on 24 25 the table as the Maine PUC transcript from November

28, 2018. I believe, the first two pages are from 1 November 28, 2018. 2 MS. BENSINGER: Okay. We have it. 3 4 MS. TOURANGEAU: And the second two pages 5 are from January 9 of 2019. THORN DICKINSON: So I think I have the -- I 6 7 have it in front of me if you wouldn't mind just 8 pointing me to the right place. 9 MS. BOEPPLE: I'm trying to find it in my records. I think Ms. Tourangeau just pointed out --10 11 oh, you've got the transcript in front of you or the exhibit? 12 13 THORN DICKINSON: I do. I have it. Do you 14 want a page from it just to look at it? 15 MS. BOEPPLE: No, I'm sorry for not having this in front of me. 16 MS. BENSINGER: So that is a NextEra 17 18 exhibit... MS. MILLER: It's the first exhibit second 19 page and that's where Mr. Dickinson's testimony is. 20 21 Is that what you're referring to? 22 MS. BOEPPLE: Yes. Thank you. 23 THORN DICKINSON: So there is a -- I mean, I 24 could read you the question if that's helpful. 25 MS. BOEPPLE: What I'd like is your response

with respect to the question about the underground 1 and the underground pricing. 2 3 THORN DICKINSON: Right. So the question --4 just so we're -- we're both speaking from the same 5 set of facts, they mention a memo, they said there --6 and the question is whether there was similar memo or 7 effort, this was related to the underground portion 8 underneath the Kennebec River to consider undergrounding the 57 miles of the greenfield 9 10 corridor and I said, no, there wasn't. 11 MS. BOEPPLE: Thank you. Further -- well, 12 I'll leave that for now. I don't have -- I'll pick 13 this up later. 14 THORN DICKINSON: Okay. 15 MS. BOEPPLE: So thank you for looking at So going back to my earlier question about the 16 that. timing on your consideration of the pricing for what 17 18 it would cost to go underground, is it fair to say 19 that you engaged in the application process before the DEP without that information as part of your 20 21 analysis? 22 THORN DICKINSON: The engineering analysis 23 we did for the rebuttal testimony was after the 24 application was made at the DEP. 25 MS. BOEPPLE: Thank you. I'd like to move

1 on and talk to you a little bit about a couple of 2 other things that came up. I believe, Mr. Dickinson, 3 you stated that this is when I interrupted you 4 earlier during Mr. Weingarten's questioning and I 5 apologize for interrupting you. I believe you stated 6 that this is a 40 year project; is that correct?

7 THORN DICKINSON: So the financial analysis 8 associated with the project is 40 years. You know, I 9 also said that the future of technology is uncertain and the specific needs that this project is really 10 11 built for, I think, are uncertain whether 20 or 30 or 12 50 years from now there is going to be other alternatives that are even better at delivering that 13 14 need and my point was that to assume that this is an 15 ever present permanent impact I think doesn't represent how much technology changes and how many 16 different solutions we can have to deal with a real 17 18 crisis that -- and needs that in front of us.

19MS. BOEPPLE: So you said we shouldn't think20about this as a permanent line; is that correct?

THORN DICKINSON: If at the end of 40 years there is a belief amongst policy makers that a continued operation of this line past the commercial operation that we imagine the length we have there is an opportunity I would imagine to extend it through

1 additional investments in the line. MS. BOEPPLE: So is there a decommission 2 3 plan you've submitted as part of this application? 4 THORN DICKINSON: No, there is not a 5 specific plan. 6 MS. BOEPPLE: So you don't have a 7 restoration plan either, correct? 8 THORN DICKINSON: No, but my point is just 9 that the assumption that it is permanent and forever 10 is inaccurate. 11 MS. BOEPPLE: Well, that would be a little like saying that any house that's built is assuming 12 13 that it's there permanently but it might fall down in 14 20 years. 15 THORN DICKINSON: I guess the way -- the way that I think about it is this project this is for a 16 specific need and that need is, I believe, very 17 18 adequately addressed and demonstrated. If that need 19 no longer is met in the future there would be no reason for the line to continue to be in operation. 20 MS. BOEPPLE: So if that were the case then 21 22 what you're testifying to today is that you'll take 23 those poles and lines down; is that correct? THORN DICKINSON: I think -- yeah, assuming 24 25 the appropriate mechanism for how it's done and the

1 appropriate methodology, yes, of course. 2 MS. BOEPPLE: And you'll restore the corridor? 3 4 THORN DICKINSON: I mean, again, the -- the devils are in the details as far as restoring the 5 6 corridor. As we've talked about this is kind of a mosaic of an area with a lot of different impacts 7 associated with it, so, I mean, I think it's 8 9 reasonable as a good neighbor and a good developer of a project that if the project were to be determined 10 that it should be taken down that we work on making 11 12 sure just as thoughtfully I believe the project has been proposed, we would thoughtfully restore to, you 13 14 know, have these same kind of conversations about 15 removal. MS. BOEPPLE: And does that mean you would 16 17 also give up the easements that you have? 18 THORN DICKINSON: Can you define give up? 19 MS. BOEPPLE: Would you sell them to the landowners? Would you relinquish them to a 20 21 conservation organization? Would you no longer use 22 them for transmission purposes? 23 THORN DICKINSON: I mean, to know what's going to happen 50 years from now and to know what 24 25 challenges our region, our planet, you know, our

future children are going to face, how can you say 1 whether or not that this corridor won't be something 2 that ultimately will be really important for solving 3 future needs. 4 Right. 5 MS. BOEPPLE: And but, Mr. Dickinson, typically with utility corridors and 6 7 projects, if they have a useful life and that's 8 defined typically you would have a decommission plan with them, isn't that fair to say? 9 THORN DICKINSON: No, I don't think that's 10 11 true in the case of transmission. 12 MS. BOEPPLE: Right. Because usually they're built and they're never taken down, right? 13 No, I -- no, I don't agree 14 THORN DICKINSON: 15 with that. I think, again, the assumption that because for the last 100 years or 50 years a 16 transmission line was put in place and provided value 17 18 whether it was economic reliability, safety, all of 19 the things that we currently rely on, the 3,000 miles of transmission throughout CMP's service territory 20 if -- if in the future those transmission lines 21 22 aren't continuing to provide value they will be 23 reevaluated to determine whether they should be. And I think just to say that a transmission line in the 24 25 past may have existed for a longer period of time, I

1 don't think there is an accurate representation of 2 what the future may hold. 3 MS. BOEPPLE: So in your experience -- how 4 many years have you been in this industry? 5 THORN DICKINSON: 30 years. 6 MS. BOEPPLE: And in that time, have you 7 been involved in decommissioning a transmission line? 8 THORN DICKINSON: I mean, that's not my --9 my specific skill set is not in the engineering and 10 permitting of specific transmission lines, but I can 11 think of a number of lines that had to be removed 12 because they were past their useful life. MS. BOEPPLE: A transmission corridor is 13 14 what we're talking about. 15 THORN DICKINSON: Well, I mean, as an 16 example many of the parcels of land that are now 17 being conserved and provided as part of the 18 mitigation associated with this land were because 19 there were 100 years ago someone at Central Maine Power that believed there is potential value in these 20 21 corridors and lands that might be needed for the 22 future and the future changed. And those lands no 23 longer were needed in the future and they've been now provided and protected for the people of Maine and 24 25 for the region.

MS. BOEPPLE: And that's not the same thing 1 2 as building a transmission line in a corridor and 3 taking it down, is it? 4 THORN DICKINSON: No, I think it is. There is a corridor that -- and land that was envisioned to 5 6 have a future use and I would imagine if you probably 7 interviewed -- could go back in time and interviewed all those people, they'd say that land will 8 9 definitely be used for this use because they maybe didn't have a broad enough understanding about how 10 11 the world changes. 12 MS. BOEPPLE: Do you have an example of that? 13 THORN DICKINSON: Well, I mean, there are a 14 15 lot of parcels of land that were provided that were -- many of them around the idea of additional 16 hydro development and so, but, I mean, there are, you 17 18 know, I don't have off the top of my head a huge 19 amount of those examples. But my main point is that if this -- if this corridor and if this line 20 21 continues to provide value and the need that's been 22 identified, which is a critical need, that most of 23 the earth has realized is important that that project will continue to provide value. And if not, then --24 25 then the -- I don't see a future of that transmission 1 line in that corridor.

2	MS. BOEPPLE: I understand the point you're
3	making. Thank you. I won't belabor this further. I
4	would like to talk a little bit about another project
5	that CMP was engaged in. And if I could move to the
б	next slide, which is a little fuzzy and I apologize
7	for that. I assume you're familiar with the Maine
8	Power Reliability Project?
9	THORN DICKINSON: I am.
10	MS. BOEPPLE: Okay. And the reason I'm
11	going to ask some questions about this is I'm going
12	to show you some pictures of some transmission towers
13	and part of a line and ask if there are some
14	similarities between that is what is going to be
15	constructed here and there might not be, but I'd like
16	you to help educate us a little bit.
17	MR. MANAHAN: Could I just ask, are these in
18	the records somewhere or are these
19	MS. BOEPPLE: They will be.
20	MR. MANAHAN: You're going to establish some
21	foundation through Mr. Dickinson?
22	MS. BOEPPLE: Yes. So could you tell me
23	what the goal of the Maine Power Reliability Project
24	was, Mr. Dickinson?
25	THORN DICKINSON: I was not the project

manager of that project, but in general the main 1 2 focus was reliability. 3 MS. BOEPPLE: Okay. And what does that mean 4 in utility terms? 5 THORN DICKINSON: It means making sure that 6 the lights stay on. 7 MS. BOEPPLE: Okay. And so this is actually 8 a photo of a segment of the project that was to 9 re-energize a 13.9 mile 115 kV transmission line connecting the Riley Substation in Jay to the Rumford 10 11 IP Station in Rumford, does that sound -- I know you 12 weren't the project manager, but does that sound like 13 that was a component of the MPRP? THORN DICKINSON: I mean, it -- really when 14 we're getting that specific I'd want to have a map. 15 I'd want to have somebody that --16 17 MARK GOODWIN: Can I answer that for you? 18 THORN DICKINSON: Oh, okay. 19 Okay. Great. Mr. Goodwin. MS. BOEPPLE: 20 Yeah, I believe that's MARK GOODWIN: 21 Segment 39 of the MPRP project. 22 Thank you. And were there MS. BOEPPLE: 23 other areas of the state that had similar upgrades 24 and improvements? 25 MARK GOODWIN: Yes.

1 MS. BOEPPLE: And I'd like to show you a 2 few -- the next slide, please. The other way. There 3 we go. The next photos were all taken from the website of a company called Irby, are you familiar 4 5 with that company? 6 MARK GOODWIN: T am. MS. BOEPPLE: And did they do most of the 7 8 construction or some of the construction on the MPRP 9 project? 10 MARK GOODWIN: They did. 11 MS. BOEPPLE: So if they're using these 12 photographs on their website to illustrate their work for utility work, would they probably be fairly 13 14 accurate if they say they're from the MPRP project? 15 Would that be probably correct? MARK GOODWIN: I mean, I quess you could 16 speculate that it's correct. 17 MS. BOEPPLE: Okay. So does this look like 18 the kind of installation of towers that were 19 20 installed during the MPRP project? 21 THORN DICKINSON: I mean, again, to get into 22 the specifics, the H-frame structure and those 23 things, I think we'd really want the engineering folks that worked on MPRP. 24 25 MS. BOEPPLE: Okay. I'm not looking to

1 validate whether or not those were the actual 2 structures that were put in, but do they look -- do 3 they look like the kind of structures that you would 4 install that might be called steel weathering poles? 5 THORN DICKINSON: I mean, that wouldn't 6 surprise me, no, and, again, this is a -- just to 7 point out if we're talking about particularly the DC 8 component of the project, this is not the structures 9 we're thinking about just to be clear. This is an H-frame structure as opposed to a monopole. 10 11 MS. BOEPPLE: Okay. So these are not examples of monopoles? These are -- these would be 12 an H-frame? 13 14 THORN DICKINSON: Yeah, I believe so, 15 although they're still in the process of being built. MS. BOEPPLE: Okay. Could we have the next 16 slide, please? Does this look like a familiar area 17 18 as part of the MPRP project? 19 THORN DICKINSON: It wouldn't surprise me if 20 that was from there, yeah. 21 MS. BOEPPLE: Okay. And the kind of structures that we're seeing here, what kind of 22 23 structures are those? THORN DICKINSON: So on the left those would 24 25 be an H-frame structure, so obviously why it's called

an H-frame. And then they're -- they're single pole 1 structure, on the right. 2 3 MS. BOEPPLE: And are either of those similar to the kind of structures we're going to 4 5 see -- we would see if this project is approved? 6 THORN DICKINSON: I mean, the panel later on 7 is -- does have engineering people on it that are 8 going to be -- I was an engineer at one time, but. 9 MS. BOEPPLE: Okay. So someone else can respond to this a little bit better. 10 11 THORN DICKINSON: I think so, yeah. Okay. So could I move on to 12 MS. BOEPPLE: the next slide? Then we'll skip over this one as 13 14 I'll just talk with the engineers about these. well. THORN DICKINSON: Yeah, you can. I mean, We 15 talked about H-frames, a single pole and then these 16 17 would be more lattice structures, so. 18 MS. BOEPPLE: Okay. And the next slide, 19 please. And, again, these are lattice structures? 20 THORN DICKINSON: Yes. 21 MS. BOEPPLE: And these were all -- all of 22 these were put in as part of the MPRP as far as you 23 know, but you guys aren't the engineers. 24 THORN DICKINSON: Yeah, I'd prefer that 25 someone --

1 MS. BOEPPLE: Okay. 2 THORN DICKINSON: -- that was 3 well-acquainted with the MPRP. 4 MS. BOEPPLE: Okay. Is it fair to just say 5 that the MPRP as you've described before was to 6 improve the reliability in the State of Maine, 7 correct? 8 THORN DICKINSON: That's the main goal of 9 the project, right. 10 MS. BOEPPLE: Okay. Could I have the last 11 slide, please? Well, not that one. This one. So 12 are you familiar with the U.S. Energy Information Administration? 13 14 THORN DICKINSON: At a very high level. 15 MS. BOEPPLE: Okay. Are you aware that they did a report that was dated April 5, 2018 that showed 16 17 the average frequency --18 MR. MANAHAN: Ms. Miller, I object to this 19 whole line of questions. This -- this hearing is about DEP's approval criteria and Mr. Dickinson's 20 21 testimony and to be talking about a reliability 22 project when she has made no foundation for any of 23 these exhibits and has made no connect to Mr. Dickinson's testimony, I object to this whole 24 25 line of questioning.

1 MS. BOEPPLE: It -- may I respond? 2 Yeah, if you could respond, MS. BENSINGER: 3 please. 4 MS. BOEPPLE: Yeah. So one of the things 5 that the Department is doing in a hearing is 6 assessing and evaluating the credibility of the 7 witnesses and the credibility of the testimony that's being provided, so I think it's appropriate to 8 9 question and ask whether or not the information that you are being given is valid and whether or not the 10 11 word that's being given by the witnesses is credible 12 and my questions are going to that. Madame, Tony Buxton for the 13 MR. BUXTON: 14 Industrial Energy Consumer Group, if I may. This 15 particular slide is from a study about the distribution systems in the United States not the 16 17 transmission systems and this is an excellent example 18 of the failure to properly identify what's being used 19 in cross-examination, so we join in CMP's objection. But, frankly, just to respond 20 MR. MANAHAN: 21 to what Ms. Boepple said, this isn't addressed at 22 Mr. Dickinson's credibility. There is no -- I see --23 she has made no connection to Mr. Dickinson's testimony. She's just throwing this out there in 24 25 order to get it out and so I object to it.

1 MS. BENSINGER: On this slide, I would 2 recommend that the Presiding Officer not allow it and 3 not allow questions about it because as Mr. Manahan 4 pointed out this was not addressed in the witnesses 5 testimony and it does not seem to address the 6 statutory criteria. 7 MS. MILLER: So I'm not going to allow it 8 I would like to stick with what's in his in. testimony and the criteria, the DEP criteria. 9 Thank 10 you. 11 MS. BOEPPLE: Okay. Thank you. So just to 12 wrap up --MR. MANAHAN: Are we going to get copies of 13 14 those other exhibits? Are they going to be admitted 15 into the record and we just saw them and they're 16 qone? 17 Well, since nobody was able to MS. BOEPPLE: 18 talk in great depth about the components of the MPRP 19 on this panel, I thought I would try and discuss it with your next panel, so I'd like to reserve trying 20 21 to admit those until then. 22 Well, I object to using MR. MANAHAN: 23 exhibits, not marking them as exhibits, not admitting them into the record, not establishing a foundation 24 25 and just sort of hoping they'll fly. I object to

1 this whole line of questioning.

2 MS. BOEPPLE: If I could just respond to 3 that. So typically you would also use exhibits for 4 illustration purposes, which is exactly what I was 5 using those photographs for. And I was asking Mr. Dickinson and the panel if these were 6 7 illustrations of towers that might be constructed as part of this project, so it doesn't necessarily have 8 to come in as evidence. 9 MR. MANAHAN: Ms. Boepple never asked a 10 11 question. She's tried to ask the question but then 12 she withdrew them apparently after making certain statements, but they're not in the record --13 14 MS. BENSINGER: I would recommend that 15 they -- they have not been offered to be admitted, so they're not admitted at this time. If she -- if you 16 do offer them to be admitted, I think Ms. Boepple 17 18 will have to establish more clearly where they came 19 from. 20 MS. BOEPPLE: Understood. Thank you. Could 21 the time keeper let me know how much of my 85 minutes I have left? 2.2 23 MS. KIRKLAND: You have 39 minutes and 45 24 seconds.

25

MS. BOEPPLE: Okay. I'd like to reserve the

1 rest of my time then. Thank you. 2 MS. MILLER: Thank you. So we'll move on to 3 Group 3. 4 MR. REID: Susanne, I just have one quick question of this panel. And this exhibit I think 5 6 we've marked it as Group 2-10 Exhibit 1 for 7 cross-examination. And I'm not asking you to certify the accuracy of the information in that document, but 8 9 if any of you now that you've had a chance to review it see anything that's inaccurate or misleading in 10 11 the information contained in that document, I'd like 12 you to tell us. THORN DICKINSON: I mean, they're generally 13 14 like in the ballpark of what I would expect to see. 15 Generally, what I would like to do is go back and 16 take a look at, you know, what I know to be true and 17 verify it, but I think in a general perspective. 18 MR. BUXTON: If I may. Tony Buxton from the 19 Industrial Energy Consumer Group. The Commissioner did not ask the rest of us, but I would assert that 20 some of the information is clearly incorrect, for 21 22 example, the total cost of Northern Pass is clearly 23 incorrect. 24 MS. MILLER: Okay. Let's get started with 25 Group 3. Thank you.

1 MR. BOROWSKI: Good morning. My name is 2 Benji Borowski, counsel to the Industrial Energy 3 Consumer Group. And just for clarification, it is Industrial not International for the record. And I'm 4 5 representing Group 3 up here. 6 I have some questions for you, Mr. Goodwin. 7 How much money is CMP proposing to compensate for 8 impacts to Jack pine stands? 9 MARK GOODWIN: I believe that number is \$1.2 million. 10 11 MR. BOROWSKI: And why did CMP propose that 12 compensation amount? Well, CMP initiated some rare 13 MARK GOODWIN: 14 plant and unique natural community surveys and 15 identified a bunch of rare plants and some unique natural communities. One of the habitats was Jack 16 pine forest. That was identified, I believe, it's in 17 18 Bradstreet Township. And we met and had some 19 consultation with Maine Natural Areas Program and they indicated that if the impact was unavoidable 20 21 that it merited compensation at an 8 to 1 ratio and 22 the compensation area included a 250 foot zone around 23 the -- around the impact. Thank you. And it is clear 24 MR. BOROWSKI: 25 to CMP that it was required to compensate for those

1 impacts?

MARK GOODWIN: At the time that the 2 compensation was calculated, CMP believed that the 3 dollar amount -- well, that compensation was required 4 based on the information that we knew at the time. 5 6 Maine Natural Areas Program has not been out to look 7 at the site to verify the quality of the site or give 8 it an appropriate rank. Subsequent to that, we have -- we since through some evaluation of stand 9 10 data provided by the Weyerhaeuser, hopefully I 11 pronounced that right, Weyerhaeuser Company, we 12 noticed in the GIS data they were identified as pine plantations, which suggests that they were, in fact, 13 So we requested some additional information 14 planted. 15 from Weyerhaeuser Company and, in fact, it came back that the stand data adjacent to these areas indicated 16 that it was containerized plantings of Jack pine in 17 18 the mid-'80s. So we've alerted MNAP of that fact and 19 we're waiting for them -- a response from them in 20 terms of what -- what that means from the standpoint 21 of the quality of the habitat and the compensation 22 that is ultimately needed or not needed, but the 23 current proposal is to compensate \$1.2 million. Thank you for that 24 MR. BOROWSKI: 25 clarification. Now, Mr. Dickinson, I have a few

1 questions for you. Mr. Dickinson, didn't CMP submit 2 various proposals to the Massachusetts RFP including combinations with solar and wind? 3 4 THORN DICKINSON: Yes, we did. 5 MR. BOROWSKI: Did one proposal jointly made 6 with NextEra include new solar and wind facilities 7 being constructed in Maine near the Canadian terminus 8 of the NECEC project? 9 And it included also THORN DICKINSON: Yes. battery technology and further investments further 10 down the corridor. 11 12 MR. BOROWSKI: Would that proposal, the 13 NextEra proposal --14 MS. BOEPPLE: Objection. This line of 15 questioning is not going to the hearing topics. 16 MS. MILLER: Do you want to respond to that? 17 MR. BOROWSKI: Depending on how Sure. 18 expansive your view is of an alternative it goes to 19 alternatives. Moreover, it goes to the credibility 20 of NextEra's testimony about undergrounding. 21 MS. MILLER: I'm going to go ahead and allow 2.2 it. 23 MR. BOROWSKI: Thank you. MS. TOURANGEAU: I'm going to go ahead and 24 25 object then. This is Joanna Tourangeau on behalf of

NextEra that the -- Chris Russo will be testifying on direct and if you wish to challenge his credibility you can ask him those questions. It's inappropriate to challenge his credibility as the basis for the relevance of your questioning -- line of questioning when you're questioning CMP's witnesses.

7 MR. BOROWSKI: It's my understanding that 8 Mr. Russo works for a consulatancy, but Mr. Dickinson 9 submitted proposals on behalf of CMP. One of those 10 proposals was jointly made with NextEra, so he has 11 direct knowledge of the questions -- of the answers 12 to the questions I'm asking.

13MS. TOURANGEAU:Except for those proposals14were to the Massachusetts PUC not to the DEP.

MR. BOROWSKI: Exactly, but they would have had impacts in Maine in the same area where this project is.

MS. TOURANGEAU: But it's not relevant to the alternatives analysis. The only relevance would be to credibility and then you would have to ask Mr. Russo directly.

MS. BENSINGER: I would recommend that thePresiding Officer allow it.

24MR. BOROWSKI: Thank you. So would the25NextEra proposal have required a transmission line to

1 Lewiston?

2 THORN DICKINSON: Yeah, it would have 3 essentially used the same corridor that we had 4 proposed as part of NECEC. MR. BOROWSKI: Would that transmission line 5 have been buried? 6 7 THORN DICKINSON: No. It was an overhead 8 transmission facility as proposed. 9 MR. BOROWSKI: Did NextEra ask CMP to propose a buried line to Lewiston as an alternative? 10 11 THORN DICKINSON: They did not. 12 MS. TOURANGEAU: Again, I'm going to object 13 as to relevance. 14 MR. BOROWSKI: Same answer. 15 MS. BENSINGER: I would, again, recommend that it be allowed. 16 17 MR. BOROWSKI: Thank you. Do you think that 18 the NextEra proposal would have created a larger or 19 smaller environmental footprint than the NECEC project given that NextEra's proposal included both 20 generation facilities and transmission facilities in 21 2.2 Maine? 23 THORN DICKINSON: Definitely a larger 24 footprint in Maine, yes. 25 MR. BOROWSKI: Did CMP have any say in which

1 of its submissions to the Massachusetts RFP won? 2 THORN DICKINSON: No. None. 3 MR. BOROWSKI: Thank you. That's all. 4 MS. MILLER: Thank you. Group 4 is next. Т want to note we have about 25 minutes until we need 5 6 to break, so we can split that testimony up. We're 7 going to continue to do cross -- I mean, sorry. We're going to split that cross-examination up. 8 9 We're going to have to continue cross-examination into the afternoon. As you know, we have time blocks 10 11 for each of the parties, so it does shift some of the 12 scheduling back, but it doesn't mean that we're not going to all fit it in with the general time frame 13 for the Applicant panel. 14 15 MR. BOROWSKI: May I ask for a time check on how much I have left? 16 17 MS. KIRKLAND: Let's see, you've used 3 18 minutes and 26 seconds. 19 MR. BOROWSKI: Thank you. 20 MS. MILLER: So Group 4. MR. PUBLICOVER: David Publicover for Group 21 22 4 and I will be crossing Mr. Goodwin and Mr. Mirabile 23 and then Jeff Reardon will be crossing Miss Johnston. MR. MANAHAN: Could I just ask, we were --24 25 the instructions at the prehearing conferences were

1 to cross-examine by panel absent some unique special 2 circumstances, so I would object to Mr. Publicover's 3 effort to try to break up this panel. They're 4 available as a panel for one questioner as per the 5 instructions of the Presiding Officer.

MS. BENSINGER: Well, certainly we said it was okay for different questioners to focus on different witnesses and that could be within a panel, but I would agree with you that if a witness on the panel feels unable to answer the question or feels that another member of the panel would be better able to answer the question that would be allowed.

MR. PUBLICOVER: All right. 13 And my 14 questions are primarily for Mr. Goodwin unless 15 otherwise noted. Throughout CMP's presentations and in your summary of the project, you noted how the new 16 17 corridor has been routed through a gap in the 18 landscape between higher value areas as shown on the 19 project overview map. If I were to -- if someone 20 were to look at an aerial photo say on Google Earth 21 of the broad region, would they be able to identify 22 any gap in land -- in the actual physical landscape? 23 MARK GOODWIN: I don't know what gap you're -- what kind -- what do you mean by gap? 24 25 MR. PUBLICOVER: Well, that is a term that

has been used in CMP's presentations on the project
 and Mr. Bradley has used that term in presentations
 on the project.

4 MARK GOODWIN: If you're referring to 5 changes to topography and siting the line to make it 6 less visible using intervening vegetation and 7 topography then I would say yes. I mean, that's one 8 of the considerations.

9 MR. PUBLICOVER: Well, I'll ask Mr. Mirabile 10 that question. Do you -- do you recall using the 11 term gap in the landscape between higher value areas 12 for the routing of the corridor?

GERRY MIRABILE: I was making reference when 13 14 I said that to an exhibit that roughly gathered into 15 two clusters some of the highest profile areas --MR. PUBLICOVER: I think that's --16 GERRY MIRABILE: -- and identified that 17 18 there was a gap between those two clusters between 19 the Canadian border at Beattie Township and Section 20 222.

21 MR. PUBLICOVER: But if one looked at a high 22 level aerial photo, would they be able to identify 23 that gap in the physical landscape?

24 GERRY MIRABILE: The clusters were a mapping 25 exercise not something that was on the ground, so I 1 don't believe that there would be a visible gap with 2 respect to those clusters of high value recreation 3 and visual areas. You would see gaps for land uses 4 including forestry.

5 MR. PUBLICOVER: Okay. Thank you. 6 Mr. Goodwin the Application's Section 7.3.1, which 7 discusses cover types and wildlife habitat includes a 8 specific discussion of early successional habitat. Given that the State Wildlife Action Plan considers 9 mature forest to be very limited in Maine, why is 10 11 there no corresponding discussion of mature forest habitat? 12

MARK GOODWIN: I suppose there is no discussion of mature forest habitat because we're going through relatively smaller amounts of that because of the existing land uses.

17 MR. PUBLICOVER: All right. Application 18 Section 7.4.1.1, which is habitat conversion states, 19 and I quote, habitat conversion is most pronounced in those areas where the proposed transmission line 20 21 corridor traverses mature forest stands, end quote. 22 Did you conduct any analysis of how much mature forest habitat would be lost to mature corridor 23 clearing? 24

25

MARK GOODWIN: We generally just calculated

impact of forest clearing, but we didn't evaluate, 1 you know, the age, you know, the class, ages of those 2 3 trees. 4 MR. PUBLICOVER: Mr. Mirabile, can you 5 define the term umbrella species? 6 GERRY MIRABILE: Umbrella species in what 7 context? Where does that term come from? 8 MR. PUBLICOVER: It's a wildlife habitat 9 management term. Have you heard the term? 10 GERRY MIRABILE: I'm not sure I've heard it. 11 MR. PUBLICOVER: All right. I'll ask 12 Mr. Goodwin. Can you define the term umbrella 13 species? 14 No. I'm not really aware of MARK GOODWIN: 15 the exact definition of that term. I am aware of the 16 term. All right. If I told you 17 MR. PUBLICOVER: 18 that the definition of umbrella species was a species which if its habitat needs are met means that 19 multiple other species will also have their habitat 20 21 needs met. Would you agree with that definition? 22 MARK GOODWIN: I would. 23 All right. Are you aware MR. PUBLICOVER: that American marten is considered -- widely 24 25 considered to be an umbrella species for a mature

1 forest habitat in the state? 2 MARK GOODWIN: I am. 3 MR. PUBLICOVER: All right. Does Section 7 4 of the application include the word marten anywhere in it? 5 6 MARK GOODWIN: It does not. 7 MR. PUBLICOVER: Does your testimony include 8 the word marten anywhere in it? 9 MARK GOODWIN: I don't believe so. 10 MR. PUBLICOVER: Mr. Mirabile, does your 11 testimony include the word marten anywhere in it? 12 GERRY MIRABILE: I don't believe it does. 13 MR. PUBLICOVER: All right. Thank you. 14 Section -- the same section on Habitat Conversion 15 also states, and I quote, habitat conversion along transmission line corridors results in a loss of 16 17 habitat types which in turn may adversely impact 18 species that are reliant on the original habitat 19 types. Conversely, such alteration provides benefits to several species, end quote. The rest of this 20 21 paragraph discusses the habitat benefits of transmission line corridors. Where is the 22 23 corresponding discussion of which species may be adversely affected? This is for Mr. Goodwin. 24 25 MARK GOODWIN: Can you just repeat the

1 question?

2	MR. PUBLICOVER: Yes. The section talks
3	about habitat conversion and it says it may adversely
4	impact some species reliant on the original habitat
5	types and that such alteration also benefits several
б	species. And then the rest of this paragraph talks
7	about which species benefit and I'm asking where in
8	the application is the discussion of which species
9	may be adversely affected by habitat conversion.
10	MARK GOODWIN: I'd have to have the
11	application right in front of me to fully answer
12	that. You know, the application doesn't necessarily
13	go into detail on every single species that would be
14	impacted by the project. The standards don't require
15	you to list every single species that could
16	potentially be impacted by the project.
17	MR. PUBLICOVER: Right. Where is there any
18	general discussion on other than a statement that
19	some species may be adversely affected? Does the
20	application contain any discussion of these adverse
21	effects of habitat conversion?
22	LAUREN JOHNSTON: Want me to answer that?
23	MARK GOODWIN: Yeah.
24	LAUREN JOHNSTON: We talk about adverse
25	effects in the context of rare, threatened and

endangered species and also significant wildlife
 habitat.

3 MR. PUBLICOVER: All right. This is for 4 Mr. Mirabile. In your pre-filed testimony on Page 13 5 you state the NECEC project, and I'm quoting, the 6 NECEC project will create a swath of permanently 7 maintained scrub/shrub habitat in an area with the 8 scarcity of such habitat, end quote. Where is the evidence in the application to support the contention 9 10 that this habitat is scarce in the region?

GERRY MIRABILE: I don't know if there is specific evidence in the application. I think the point of that statement in the pre-filed was that it's a habitat type that is maintained on a permanent basis in this type of land use.

16 MR. PUBLICOVER: But you specifically state 17 it is scarce and I'm asking where is the support for 18 that statement?

19 GERRY MIRABILE: Right. And I think that 20 the reason it was stated that way was because it is a 21 early successional type of land cover that is present 22 in forestry operations between clearcuts and the next 23 harvest, but it's transitional and not on a permanent 24 basis and so from that information we conclude that 25 it's relatively scarce.

1	MR. PUBLICOVER: All right. This is also
2	for Mr. Mirabile. You also state on Page 13,
3	inclusion of scrub/shrub habitat within the larger
4	landscape while will advantage some plant and animal
5	species or others will not adversely impact overall
6	habitat and species diversity and may improve it,
7	closed quote. Where is the evidence in the
8	application to support the idea that clearing of this
9	new corridor will result in an improvement in
10	wildlife habitat in the region?
11	GERRY MIRABILE: Can you point me to where
12	on Page 13?
13	MS. MILLER: It's the very last sentence and
14	goes on to Page 14.
15	GERRY MIRABILE: Right. The we contend
16	that when we remove trees we don't remove habitat, we
17	convert habitat from forested to something other than
18	forested to scrub/shrub and so it's not a loss of
19	habitat, it's a conversion of habitat. And the idea
20	that it may improve diversity is based upon the
21	ecological principle that in many cases at the edge
22	of habitats where there is an ecotone or a transition
23	from one habitat to another there is actually greater
24	diversity of species than there would be in more of
25	the monoculture such as a spruce/fir forest.

1 MR. PUBLICOVER: All right. And this is for 2 Mr. Goodwin. On Page 17 of your pre-filed testimony 3 you quote an EPA website on the benefits of 4 integrated vegetation management in transmission line corridors and in includes the statement, and I quote, 5 6 these transmission landscapes in turn reduce wildlife 7 habitat fragmentation and allow species to be 8 geographically diverse remaining in areas from which 9 they might otherwise be excluded, end quote. Is the region of the new corridor an area from which 10 11 wildlife species might otherwise be excluded if the corridor is not constructed? 12 MARK GOODWIN: I don't think so. 13 14 All right. And I am going MR. PUBLICOVER: 15 to show you a copy of the screenshot of that EPA website that you quote and I have 20 copies. What do 16 I do with them? 17 18 MS. BENSINGER: If you would give one to 19 each and some to us. 20 All right. And I'm going MR. PUBLICOVER: 21 to ask you to read the highlighted sentence which 22 directly precedes the material you have quoted. Can 23 you read that highlighted sentence? MARK GOODWIN: As wildlife habitats in the 24 25 United States are lost to development these right of

1 ways become increasingly important.

2 MR. PUBLICOVER: All right. Is the region 3 of the new corridor an area where wildlife habitats 4 are being lost to development?

5 MARK GOODWIN: I am sure there are some 6 habitats that are being lost to development. There 7 is some development going on up there.

8 MR. PUBLICOVER: In the region of the new9 corridor? Can you give me an example?

10 MARK GOODWIN: Sure. I'm sure there are 11 camp lots that are developed and so on and so forth. 12 MR. PUBLICOVER: All right. Why did you omit that sentence when you quoted this material? 13 Why did I omit it? 14 MARK GOODWIN: 15 MR. PUBLICOVER: Yes.

MARK GOODWIN: I don't have any reason for why it was omitted.

18 MR. PUBLICOVER: Now, when this entire 19 paragraph is considered in context when it talks 20 about wildlife habitat being lost to development and 21 wildlife species that would otherwise be excluded, 22 isn't it apparent that this paragraph is primarily 23 talking about the benefits of wildlife habitat, benefits of transmission line corridors in more 24 25 developed landscapes where habitat is being lost to

1 development and natural habitat is becoming 2 increasingly limited?

3 MARK GOODWIN: I don't think you can 4 restrict your review to one paragraph of the entire 5 content that is on the EPA website on this topic. 6 For example, the website also says that IBM is not 7 restricted to only developed areas. The fact sheet says that I -- excuse me, hold on one second. 8 The fact sheet identifies a variety of areas that IBM is 9 helpful on including wildlife refuges, parks and 10 11 forests, so you can't, you know, you're asking me if 12 I cherry picked from the EPA website. I'm using this information only to demonstrate that IBM methodology 13 is helpful in minimizing impact to habitat 14 15 fragmentation and softening edge effects.

16 MR. PUBLICOVER: Isn't it true that in this 17 dominantly undeveloped landscape that it is the 18 clearing of the corridor that will cause the loss of 19 native habitat?

20 MARK GOODWIN: Can you repeat that again, 21 please?

22 MR. PUBLICOVER: Isn't it true that in this 23 dominantly undeveloped landscape that it is the 24 clearing of the new corridor that will cause the loss 25 of native forest habitat?

MARK GOODWIN: Forest habitat will be lost 1 2 through the construction of the project. 3 MS. BENSINGER: Excuse me, Mr. Publicover, 4 are you going to offer this as an exhibit? 5 MR. PUBLICOVER: I can if necessary. It's a 6 reference cited in his testimony, so I assumed it was 7 already part of the record. 8 MR. MANAHAN: I mean, we would object to it 9 not being introduced. I mean, he's used it and so I 10 would request it. 11 MS. BENSINGER: Are there any objections? 12 MR. PUBLICOVER: That's fine. Okay. So this will be... 13 MS. BENSINGER: 14 MS. MILLER: Group 4 Cross 1. 15 MS. BENSINGER: Group 4 Cross 1. Thank you. MR. PUBLICOVER: All right. Mr. Goodwin, in 16 17 your rebuttal testimony to Janet McMahon on Page 4 18 you state, and I quote, in the context of landscape 19 scale resiliency in 1880 Somerset County was only 60 percent forested. The region has not always had the 20 21 same large unfragmented forest she describes, end 22 Would you agree that in 1880 the non-forested quote. 23 area was mostly agricultural land? MARK GOODWIN: I don't know that it was 24 25 mostly or not.

MR. PUBLICOVER: Well, what else could it 1 2 be? 3 MARK GOODWIN: I can assume that a 4 significant amount of it was probably in agriculture. 5 MR. PUBLICOVER: Okay. And would you agree 6 that this agricultural land was dominantly located in 7 the more heavily settled southern part of the county, 8 the area that is now organized towns? 9 That could be. MARK GOODWIN: MR. PUBLICOVER: All right. So how is the 10 11 fact that the southern part of the county saw 12 extensive agricultural clearing relavent to the landscape through which the corridor would pass, 13 14 which is most likely remained and continuously 15 forested? MARK GOODWIN: 16 Um... 17 MR. PUBLICOVER: At least between -- oh, at 18 least between the Canadian border and Route 201. 19 MARK GOODWIN: I mean, my rebuttal testimony 20 is specific to the entire county. It didn't consider 21 the southern versus the northern part of Somerset 22 County. 23 MR. PUBLICOVER: Okay. All right. 24 Continuing with Mr. Goodwin. Application Section 25 7.4.1.2 on habitat fragmentation states application,

1 and I quote, some bird species within the NECEC project area that may be sensitive to forest 2 3 fragmentation are the long distance neotropical migrants that rely on forest interior habitats, but 4 plentiful suitable habitat is available near the 5 6 NECEC project area for these interior forest species. 7 Then in your rebuttal testimony on Page 9 you state, and I quote, the fact is that a significant portion 8 of Segment 1 is not interior foresting, i.e., free 9 10 from the influence of edge effects due to the 11 existing widespread logging and resulting 12 fragmentation in this area. These two statements appear to contradict each other. Would you care to 13 14 explain that?

15 MARK GOODWIN: Sure. It depends on the land, you know, the landscape scale that you're 16 looking at. If you look at what others have defined 17 18 as the western Maine mountains, you know, we're 19 talking I think what was quoted in Janet McMahon's -one of her publications, 5 million acres of forest 20 21 and that's what my rebuttal testimony is referring to 22 not necessarily, you know, within 3 miles of the 23 project area just to throw a number out there. MR. PUBLICOVER: Did you actually conduct 24 25 any analysis to document the extent of interior

forest habitat in the vicinity of the new corridor 1 and how much would be lost to the clearing of the 2 3 corridor and associated edge effects? 4 MARK GOODWIN: No. 5 MR. PUBLICOVER: All right. Now, in your 6 response to a question from Mr. Weingarten, and I'm 7 paraphrasing here, I believe you said interior forest 8 as forested has not been impacted by logging, is that 9 what you said? MARK GOODWIN: I think what I said was 10 11 intact interior forest is what I would consider a 12 forest that's been -- that's free of human disturbances. 13 14 MR. PUBLICOVER: So you would essentially 15 consider it primarily wilderness, is that how you're defining interior forests? 16 17 MARK GOODWIN: I'm defining it as a forest 18 that lacks human disturbance. 19 MR. PUBLICOVER: Okay. Is it your 20 contention that timber management is incapable of 21 maintaining areas of interior forest? 22 MARK GOODWIN: I am not a forester, so I 23 don't know the answer to that. MR. PUBLICOVER: All right. So where is the 24 25 factual evidence to support your statement that

habitat for interior forest species is plentiful in 1 2 the region as stated in the applications? 3 MARK GOODWIN: That statement was just 4 specific, again, to the overall size of the western 5 mountain region and nothing else. 6 MR. PUBLICOVER: Okay. So the fact that 7 there is parts of Bigelow Preserve or ecological 8 reserve means that there is plenty of interior forest 9 in the region? 10 MARK GOODWIN: You know, I guess what I would say is testimony provided by Janet McMahon 11 indicates that there is, you know, it's one of the --12 and hopefully I won't misspeak here, but it's one of 13 14 the biggest globally intact forest habitats. 15 MR. PUBLICOVER: All right. Now, this section, the application section on habitat 16 fragmentation also states, and I don't have the page 17 18 reference, but it's a fairly short section, 53.5 miles of new right of way which as discussed 19 previously is located in an intensively managed 20 21 timber production area and therefore not likely to 22 significantly alter existing fragmentation. And, 23 again, basically you're saying that because there is already fragmentation from timber harvesting the 24 25 corridor timber is similar to that impact; is that

1 correct?

2	MARK GOODWIN: The corridor is going to
3	create a soft fragmentation impact.
4	MR. PUBLICOVER: Okay. Now, one of the
5	references you cited in the application, which was
6	the Willyard, et al, 2004 reference states the effect
7	of transmission line right of ways could be more
8	severe than some other types of edges because rights
9	of way cover long distances and are more permanent
10	than edges resulting from more temporary openings
11	such as clearcuts. So, again, is it your contention
12	that the new corridor is just another big clearcut?
13	MARK GOODWIN: You know, to compare it to a
14	forestry clearcut is probably not exactly accurate.
15	It's a transmission line right of way that is managed
16	in early successional vegetated state. Clearcuts
17	are, you know, when they regenerate they're going to
18	be in as far as that mosaic of forest types in
19	that area they're going to be in different stages of
20	growth.
21	MS. MILLER: Mr. Publicover, are you close
22	to a wrapping up point and we'll start back up again?
23	MR. PUBLICOVER: I am about halfway through.
24	MS. MILLER: Okay. Can can you is
25	there a stopping point and you can start back up

1 after lunch? 2 MR. PUBLICOVER: Yeah. Three more 3 questions? 4 MS. MILLER: Yup. 5 MR. PUBLICOVER: Okay. All right. Is it 6 your belief that most of the harvesting in the 7 vicinity of the new corridor consists of 8 clearcutting? 9 MARK GOODWIN: No. MR. PUBLICOVER: Do you have any idea of how 10 11 much -- what percentage of harvesting in the state 12 consists of clearcutting? Maine Forest Service data 13 MARK GOODWIN: 14 indicates that between 2015 and 2017 the clearcutting 15 was approximately 6 1/2 percent. MR. PUBLICOVER: Okay. All right. So where 16 is the evidence in the application to support the 17 18 conclusion that the fragmenting impacts of the new 19 corridor are no different than timber harvesting? That statement is made, but where is the supporting 20 evidence? 21 22 MARK GOODWIN: Where is the statement made? 23 MR. PUBLICOVER: In -- I believe you said and quoted in the application 53.5 miles of new right 24 25 of way, which is discussed previously, is located in

1 an intensively managed timber production area and 2 therefore not likely to significantly alter 3 fragmentation. That's in Section 7.4.1. -- whatever the habitat fragmentation section of the application 4 5 is. So I'm asking you where is the evidence to 6 support that statement in the application? 7 MARK GOODWIN: I think if you go into Google

8 Earth and you look at aerial imagery and you use the 9 application that allows you to look back in time 10 you're going to see a constantly shifting pattern of 11 forestry activities throughout that area and it's 12 very clear that the transmission line goes through 13 these areas that are already being impacted.

MR. PUBLICOVER: One follow-up question.
Have you looked at Google Earth imagery of the
Northeast Kingdom of Vermont?

MARK GOODWIN: No, sir.

17

MR. PUBLICOVER: Are you aware there is a transmission line corridor that runs through -north/south through that area in land that was for a long time commercial timberland? MARK GOODWIN: I am not aware of any transmission line development in Vermont.

24 MR. PUBLICOVER: All right. So you're not 25 aware that there is a large transmission line running

1 north/south through the Northeast Kingdom of Vermont? 2 MARK GOODWIN: It wouldn't surprise me if 3 there was, but I -- I don't have any knowledge of transmission lines in the State of Vermont generally. 4 5 MR. PUBLICOVER: Okay. So you haven't 6 looked at the Google Earth imagery and seen that the 7 transmission line corridor appears distinctly 8 different than the harvesting patterns? 9 MARK GOODWIN: I'm -- I'm not arguing that the -- that the transmission line corridor is going 10 11 to look different than harvesting patterns. That's not the point of my testimony. 12 13 MR. PUBLICOVER: All right. I can break 14 there. Okay. Thank you. I appreciate 15 MS. MILLER: your flexibility. So we'll break for lunch. 16 We'll 17 start promptly at 1 o'clock and we'll start back up 18 with Mr. Publicover. 19 (Luncheon break.) 20 MS. MILLER: Okay. We're going to go ahead 21 and get started now. I think we're finally ready and 22 we'll turn the cross-examination back to Mr. Publicover. Thank you. 23 MR. PUBLICOVER: All right. Before we move 24 25 on, Mr. Goodwin, I just want to clarify one answer

you gave earlier, which I think you answered 1 2 correctly, but I just want to make sure people 3 understand it when I asked how much of harvesting in the state consisted of clearcutting and you said 6.5 4 5 percent and I just want to make sure that that's --6 of all of the acres that were harvested over that 7 period 6.5 percent of those acres were harvested by 8 clearcutting. 9 MARK GOODWIN: I may have slightly misspoke on that. 10 11 MR. PUBLICOVER: No, I think you answered it 12 correctly. 13 MARK GOODWIN: The -- the percentage is specific to Franklin and Somerset Counties. 14 15 MR. PUBLICOVER: Okay. That's fine. It's 16 approximately what I have too. I just wanted to make 17 sure you're not talking about 6.5 percent of the 18 state was clearcut during that time. 19 MARK GOODWIN: No, 6.5 percent was the 20 average approximately for Franklin and Somerset Counties between 2015 and 2017. 21 22 MR. PUBLICOVER: 6.5 percent of harvested 23 acres were harvested by clearcutting? 24 MARK GOODWIN: Yes. 25 MR. PUBLICOVER: Okay. All right. Moving

Application 7.4.1.3 discusses edge effects and 1 on. the Willyard, et al, 2004 reference that's cited in 2 3 the application states fragmentation produced by right of ways is likely to have a negative impact on 4 5 the greatest number of species as a result of edge 6 effects. Given their potential significance, how do 7 you justify the fact that the application includes 8 only a single brief paragraph, a mere seven lines, on the negative consequence of edge effects? 9

10 MARK GOODWIN: I don't believe the standard 11 specifically requires the Applicant to fully assess 12 what the edge effects would be. And in addition, the edge effects are somewhat muted by the fact that you 13 have a transition of, you know, lower growing 14 15 vegetation in the wire zone which is the area that's, well, approximately 54 feet centered underneath the 16 wires and as you move to the edges of the corridor 17 18 you get taller scrub/shrub vegetation, so it's the --19 the edge effect isn't as extreme in that scenario as it would be if you were mowing the entire width of 20 21 the right of way to the ground.

22 MR. PUBLICOVER: All right. That's not what 23 I asked, but we'll move on. Does this section of the 24 application contain any discussion of which species 25 might be adversely affected by the large increase in

permanent edge and subsequent loss of interior forest 1 2 habitat? MARK GOODWIN: 3 I don't recall exactly, but I 4 don't believe it goes into detail on specific species 5 and the impacts of that edge effect on those 6 species. 7 MR. PUBLICOVER: All right. 8 GERRY MIRABILE: Can I add to that, Mr. Publicover? 9 10 MR. PUBLICOVER: Sure. 11 GERRY MIRABILE: We consulted closely 12 through the application process with Inland Fisheries and Wildlife and they identified for us the species 13 14 that they were most concerned about and those were 15 the species we focused on. They also did not identify edge effect as a concern. 16 17 MR. PUBLICOVER: All right. The last 18 paragraph of this Section 7.4.1.3 is almost identical 19 to the last paragraph of the previous section 7.4.1.2 20 and concludes this transmission line segment is therefore not likely to significantly alter or 21 increase the existing edge effect. Given the lack of 22 23 analysis and the extremely limited discussion of edge effects, where is the factual basis in the 24 25 application to support this statement? This is for

1 Mr. Goodwin.

2 I'm going to defer that to MARK GOODWIN: 3 Gerry. GERRY MIRABILE: Would you ask the question 4 5 again, please? 6 MR. PUBLICOVER: Yes. The last paragraph of Section 7.4.1.3 concludes this transmission line 7 8 segment is therefore not likely to significantly alter or increase the existing edge effect. Given 9 the extremely limited discussion of edge effects, 10 11 where is the factual basis in the application to 12 support this statement? GERRY MIRABILE: I believe that statement 13 14 was based on the idea that the edge effect as it 15 exists currently based upon forestry practices would simply would be, you know, an extension of the edge 16 17 effects created by forestry practices. 18 MR. PUBLICOVER: All right. Now, 19 Mr. Goodwin, I'd like to turn your attention to the 20 This is Page 18 of your rebuttal testimony screen. 21 and the second paragraph. You estimate the amount of 22 edge created by clearcutting in Somerset and Franklin 23 Counties over a three year period; is that correct? MARK GOODWIN: It's not an estimate. 24 It's a 25 number that is derived from a Maine Forest Service

report. 1 2 MR. PUBLICOVER: Yeah. No, but you derived the estimate of how much edge is created? 3 4 MARK GOODWIN: I did, yes. Yup. 5 MR. PUBLICOVER: All right. And you estimated that the 27,368 acres of clearcuts over 6 7 this period created 3,836 miles of edge, correct? 8 MARK GOODWIN: That's correct. 9 MR. PUBLICOVER: All right. And you base this on the amount of edge one would get from 27,368 10 one acre circles, correct? 11 12 MARK GOODWIN: That's correct. 13 MR. PUBLICOVER: All right. The clearcuts 14 aren't one acre size. By your own testimony, the 15 average clearcut over that time is 30 acres. Why did 16 you base your edge calculation on one acre? 17 MARK GOODWIN: Just a minute. Let me reread 18 this, please. MR. PUBLICOVER: 19 Okay. 20 MARK GOODWIN: I think I used the one acre 21 because I was trying to, you know, use a standard 22 number. The clearcuts that are reported in the 23 Forest Service documents that I was referring to they 24 have, you know, they report on varying sizes of 25 clearcuts and I -- I don't quite recall if it tells

you -- I don't believe it tells you what each size 1 2 It just gives you, for instance, how clearcut was. 3 many clearcuts were 30 acres or more, how many 4 clearcuts were 75 acres or more and then it gives you 5 the total acreage. So I had to basically start from a base assumption of one acre because the information 6 7 that's in those reports doesn't give me the exact acreage of every single clearcut. 8 9 MR. PUBLICOVER: But why did you use one acre rather than the average clearcut size of 30 10 11 acres? MARK GOODWIN: 12 I just didn't. MR. PUBLICOVER: All right. Did you 13 14 calculate the amount of edge that would result from 15 using 30 acre circular clearcuts instead of one acre? MARK GOODWIN: I did not. 16 All right. Well, I did the 17 MR. PUBLICOVER: 18 math and the amount of edge resulting from assuming 19 30 acres --20 MR. MANAHAN: I object to the questioner 21 testifying. He can ask it as a question as opposed 22 to what his math calculation was. 23 All right. If I told you MR. PUBLICOVER: that the amount of edge resulting from assuming 30 24 25 acre circular clearcuts is only about 18 percent of

1 what you have estimated, would you question that? MARK GOODWIN: I have no idea -- excuse me. 2 3 I have no reason to doubt you. 4 MR. PUBLICOVER: All right. So doesn't 5 using one acre clearcuts seriously and erroneously 6 overstate the amount of edge that resulted from 7 clearcutting? 8 I'm sure it's not, you know, MARK GOODWIN: 9 again, I didn't use the exact acreages and perhaps I 10 should have used the 30 acres as a baseline. And I'm 11 sure that number is -- is going to be smaller than the number that I used. 12 MR. PUBLICOVER: All right. Thank you. 13 Ι 14 believe in your rebuttal testimony but also in the 15 summary of your testimony you listed various fragmenting features that exist in this region from 16 highways to the railroad and various other places. 17 18 Do you seriously believe that the fragmenting impact 19 of the new corridor is equivalent to that created by streams and skid trails? 20 21 MARK GOODWIN: They're different types of 22 fragmentation. I wouldn't say they're the same. 23 MR. PUBLICOVER: All right. Now, Section

7.4.1 of the application notes the transmission linecorridor may affect species movement and dispersal.

Among other sources, let's use comprehensive land use 1 2 plan also makes the point that transmission line 3 corridors may affect species movement and dispersal. Where in the application do you discuss the impact 4 that the new corridor may have on species movement 5 6 for which species may be adversely affected? 7 MARK GOODWIN: I don't recall if we 8 discussed exactly species movement across the 9 corridor. You know, the quote of it may -- may cause those effects. You know, our application and 10 11 supplemental materials that have been submitted 12 support CMP's efforts to manage a right of way in a manner that allows that connectivity to be 13 14 significantly retained. 15 MR. PUBLICOVER: Is there more? 16 MARK GOODWIN: Yeah, I was going to say, you know, clearly, you know, if -- if someone built a 17 18 transmission line corridor and, you know, mowed it to 19 the ground and maintained it in a mowed state then, yeah, maybe it would have significant impacts, but 20 21 that's not what CMP is doing or proposing to do. 22 MR. PUBLICOVER: All right. Can you please pull up Exhibit CMP 3-I? It's in -- it's an exhibit 23 from Goodwin's rebuttal testimony. 24 25 MS. MILLER: Are you referring to 3-I in the

1 direct testimony? 2 MS. BENSINGER: Rebuttal. 3 MR. PUBLICOVER: Rebuttal. That is direct? 4 MS. MILLER: 5 MR. PUBLICOVER: It is. It's from his 6 pre-filed testimony. 7 MS. MILLER: Pre-filed? 8 MS. BENSINGER: Pre-filed direct. 9 MR. PUBLICOVER: Direct. Okay. 10 MR. BEYER: Which exhibit? 11 MR. PUBLICOVER: So this would be under 12 Goodwin's Direct 3-I. All right. So this shows the 13 typical vegetation management within the stream buffers, correct? 14 15 No, that's -- that's a MARK GOODWIN: typical for the -- typical right of way conditions 16 17 throughout the right of way. MR. PUBLICOVER: I believe when it's 18 19 referenced in your direct testimony, if I can... All It's on Page 21 of your direct testimony. 20 right. 21 MARK GOODWIN: Yup. I see it. 22 MR. PUBLICOVER: Okay. And it says within 23 that portion of the stream buffer that is within the wire zone all vegetation over 10 feet in height 24 25 whether capable or non-capable will be cut back to

ground level, Exhibit CMP 3-I. So you're referring 1 to this exhibit in a discussion of vegetation 2 3 management in the stream buffers. 4 MARK GOODWIN: Yes, but it's also relevant 5 to other portions of the corridor. 6 MR. PUBLICOVER: Okav. But it is relevant 7 to the stream buffers, correct? 8 MARK GOODWIN: It is. 9 MR. PUBLICOVER: All right. So outside the wire zone capable species will be removed, correct? 10 11 MARK GOODWIN: That's correct. 12 MR. PUBLICOVER: And when you say capable 13 species you mean trees, correct? MARK GOODWIN: Any species that's capable 14 15 for -- generally trees, yes, but any -- any species that's capable of growing to heights tall enough that 16 could enter the conductor safety zone. 17 18 MR. PUBLICOVER: All right. So even outside 19 the wire zone vegetation will be maintained in an early successional condition as compared to the 20 21 adjacent forest, correct? 22 MARK GOODWIN: That's correct. So how does this maintain 23 MR. PUBLICOVER: connectivity for species such as marten that require 24 25 minimum levels of more mature forest vegetation and

1 avoid areas of early successional vegetation? 2 MARK GOODWIN: You're asking me how it 3 maintains their preferred habitat? I think I've 4 already answered that question. In other ways it's 5 not, you know, when you clear the right of way and 6 return it to an early successional vegetative state 7 it's clearly not the preferred habitat of the marten. You know, IF&W did not indicate to CMP during their 8 9 project review that marten was a significant concern. Actually, I don't even believe they ever really 10 11 brought it up as a potential issue. And, you know, 12 our efforts were focused on protecting the endangered species that were a concern to IF&W. Do you have 13 14 anything to add to that, Gerry? 15 GERRY MIRABILE: No. 16 MR. PUBLICOVER: Okay. But so you admit that this will not maintain connectivity for marten 17 18 or other species that avoid early successional habitat? 19 20 MARK GOODWIN: I understand that marten 21 typically avoid early successional habitat. I don't 22 think it precludes them from crossing that habitat to 23 get to other portions of the forest. MR. PUBLICOVER: All right. 24 25 MARK GOODWIN: On the other side.

1 MR. PUBLICOVER: Are you familiar with the 2 work of Dan Harrison and Payton and others that 3 were -- or Payer that were cited in my testimony describing how marten will avoid areas such as this? 4 5 MARK GOODWIN: No, sir, I'm not. 6 MR. PUBLICOVER: Now, you state in your 7 pre-filed testimony, Page 17 or your direct 8 testimony, CMP's vegetation management practices establish areas of dense shrubby vegetation and 9 10 taller vegetation where topographic conditions allow, 11 e.g., steep ravines, thereby providing a vegetation 12 bridge for wildlife movement across the NECEC corridor. Are these areas of taller vegetation 13 14 discussed anywhere in the application? 15 MARK GOODWIN: I believe they are discussed 16 in the vegetation management plan and possibly the 17 vegetation clearing plan. 18 MR. PUBLICOVER: Is there any information in the record that documents the location and extent of 19 20 these areas where taller vegetation will be maintained? 21 22 MARK GOODWIN: There is not. The -- these 23 areas during construction will be evaluated by the construction superintendent forester and they'll make 24 25 a determination whether or not the condition is --

would allow for taller vegetation to remain in those 1 areas. A similar practice was executed that way on 2 3 the Maine Power Reliability Program. MR. PUBLICOVER: But so in terms of whether 4 there is any information in the record as to where 5 6 they will be the answer is no.? 7 MARK GOODWIN: That's correct. 8 MR. PUBLICOVER: All right. And so it could 9 be there won't be any, correct? 10 MARK GOODWIN: That's possible. 11 MR. PUBLICOVER: All right. Now, many 12 references including some that have been included in CMP materials note the importance of coarse, woody 13 14 debris retained in early successional areas as refuge 15 or bridges that enhance the ability of small animals particularly amphibians to move through these areas. 16 How would coarse, woody debris be maintained in the 17 18 corridor given that all trees will be removed? MARK GOODWIN: I think what that's referring 19 to is the early successional woody vegetation that 20 21 grows to heights at which they determine the need to 22 be removed for management of -- well, protecting the 23 conductors for safety and reliability reasons. 24 MR. PUBLICOVER: Okay. But you're not going 25 to have any 12 inch diameter rotten logs in the

1 corridor?

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2	MARK GOODWIN: No. No, sir.
3	MR. PUBLICOVER: Okay. Now, in your
4	rebuttal testimony on Page 18 you state the maximum
5	width of the right of way on Segment 1 will be 150
б	feet, likely far less than the significant widths
7	created by clearcuts of 30 acres or more. And you
8	used this to support your contention that the impact
9	on species movement of the corridor will be no more
10	significant than the impact of clearcuts, correct?
11	MARK GOODWIN: I'm sorry. I'm just flipping
12	to that page. Can you ask the question again,
13	please?
14	MR. PUBLICOVER: Okay. You see the quote
15	you're comparing the maximum width of the right of
16	way of 150 feet?
17	MARK GOODWIN: Yes, sir.
18	MR. PUBLICOVER: You say it's likely far
19	less than the significant widths created by clearcuts
20	30 acres or more and you use this to support your
21	conclusion that the impact on species movement of the
22	corridor will be no more significant than the impact
23	of clearcuts, correct? It's easier for them to go
24	across the corridor than it is for them to go across
25	
	a wider clearcut, is that your point?

MARK GOODWIN: That's not what my testimony 1 2 says. 3 MR. PUBLICOVER: Okay. Well, what is the 4 point of that statement? 5 MARK GOODWIN: The point -- if I could, I'll read it. If wildlife continue to thrive and remain 6 7 connected in a region that routinely has new edge 8 created at significant widths and distances over a 9 very large area by the forestry industry then it is reasonable to conclude that wildlife connectivity 10 11 will not be unreasonably impacted by 150 foot wide 12 vegetated right of way. 13 MR. PUBLICOVER: Okay. Animals that require 14 continuous forest cover can go around clearcuts, 15 can't they? MARK GOODWIN: 16 Yes. 17 All right. Thank you. MR. PUBLICOVER: 18 That's all I have. 19 Thank you. Did Group 4 --MS. MILLER: 20 MR. PUBLICOVER: And, yes, now Mr. Reardon will take over. 21 22 MR. REARDON: Good afternoon. My name is Jeff Reardon. I work for Trout Unlimited. And my 23 questions are primarily for Ms. Johnston, but I'm 24 25 comfortable with anybody on the panel answering if

1 that's appropriate. I want to go back to the idea 2 that streams are a fragmenting feature on the 3 landscape. For fisheries, do streams serve as 4 corridors of connectivity or as fragmenting features? 5 LAUREN JOHNSTON: I would say they serve as 6 both. 7 MR. REARDON: How do streams fragment 8 aquatic habitat? 9 LAUREN JOHNSTON: They don't -- it wouldn't fragment aquatic habitat, it would be terrestrial 10 11 habitat. 12 MR. REARDON: Okay. So my question said for 13 fisheries. 14 LAUREN JOHNSTON: Okay. All right. Ι 15 understand. 16 MR. REARDON: Okay. So you agree they're 17 features for connectivity? 18 LAUREN JOHNSTON: Correct. MR. REARDON: What about for wetland 19 dependent species like turtles, salamanders, frogs? 20 21 LAUREN JOHNSTON: I would say so. 22 MR. REARDON: Small mammals? Beaver, otter, 23 mink, marten? 24 I would say so. LAUREN JOHNSTON: 25 Large mammals like deer and MR. REARDON:

moose that tend to be associated with riparian 1 2 systems particularly in winter? 3 LAUREN JOHNSTON: Yes. 4 MR. REARDON: Thank you. I want to -- this 5 figure -- it wasn't my intention, but the figure is 6 still up on the screen. This does represent what we 7 would see in the buffer within the, quote, widened 8 100 foot riparian buffers, that's approximately what 9 we would expect for the vegetation there? 10 LAUREN JOHNSTON: Yes. 11 MR. REARDON: So the maximum height of the 12 non-capable vegetation within the roughly 45 foot wide corridor, how high would that grow? 13 That would be allowed to 14 LAUREN REARDON: 15 grow up to 10 feet before cut stage. 16 MR. REARDON: How much shade would 10 foot 17 high vegetation provide in mid-summer? 18 MARK GOODWIN: I'm going to make a 19 correction here. The -- in the wire zone, the woody 20 vegetation over 10 feet in height would be removed on 21 a four year cycle. Outside the wire zone only the capable woody vegetation is removed. If during 22 23 vegetation management review of a particular area or during that cycle if they see capable species out 24 25 there that are approaching the conductor safety zone

1 then they might remove them. So it would not be uncommon for there to be shrubs outside of the wire 2 3 zone that exceed 10 feet in height. 4 MR. REARDON: Okay. Exceed 10 feet in 5 height by how much? 6 MARK GOODWIN: Probably 15 to 20 feet maybe. 7 MR. REARDON: 15 to 10 feet total or 10 plus 8 15 to 20? 9 MARK GOODWIN: Probably 15 to 20 total. MR. REARDON: And that would be within the 10 11 wire zone? 12 No, sir. That would be MARK GOODWIN: 13 outside of the wire zone. 14 MR. REARDON: Okay. So what would be the 15 maximum height within the wire zone? MARK GOODWIN: 10 feet. 16 MR. REARDON: Which is the same as what Ms. 17 18 Johnston said, isn't it? MARK GOODWIN: I believe Ms. Johnston was 19 20 discussing outside the wire zone. 21 MR. REARDON: My question referred to within 22 the wire zone, but okay. So maximum height of 10 23 feet within the wire zone and 15 to 20 feet in the -outside the wire zone. Within the wire zone, how 24 25 much shade on say an 80 foot wide stream would that

1 10 foot high vegetation provide? 2 LAUREN JOHNSTON: I can't say for sure. Ιt 3 depends on -- it depends on the conditions of the --4 of that particular stream. 5 MR. REARDON: Okay. At high noon in August. 6 LAUREN JOHNSTON: I would say it probably 7 receives direct sunlight. 8 MR. REARDON: Thank you. Will any canopy trees be allowed to remain -- remain anywhere within 9 10 the widened 100 foot wide riparian buffers? 11 LAUREN JOHNSTON: No. Well, canopy trees, any capable species would not be allowed to remain 12 within the --13 14 MR. REARDON: Right. So no vegetation over 15 approximately 20 feet? 16 LAUREN JOHNSTON: Correct. MR. REARDON: And maybe a few get a little 17 18 bit higher than that before they get cut? On the 19 four year rotation, I'm just --20 LAUREN JOHNSTON: It depends if it's a 21 capable species or not capable species. 22 Thank you. Are you familiar MR. REARDON: 23 with the Maine Department of Environmental 24 Fisheries -- sorry, Maine DIF&W's forest management 25 recommendations for brook trout? This was an

attachment to my rebuttal testimony and I believe it 1 was an attachment to at least one of the CMP's 2 3 witnesses testimony as well. LAUREN JOHNSTON: I am familiar with IF&W's 4 5 performance standards for riparian buffers, which 6 they provided in some of the consultation that we've 7 had with them. 8 Can you put up it's Attachment MR. REARDON: 9 2, I believe, to my rebuttal testimony. It's about a 10 three page document. 11 MS. BENSINGER: So that would be Group 4 Reardon rebuttal. 12 MS. MILLER: 13 Mr. Reardon, just to clarify, I 14 think I have that -- is that the forest management 15 for brook trout? 16 MR. REARDON: Yes. 17 That's -- I have that MS. MILLER: Okay. 18 listed as Exhibit -- Group 4 Exhibit 20. Rebuttal. MR. REARDON: 19 Thank you. I'm sorry. 20 MR. BEYER: You want rebuttal testimony, 21 Jeff? MR. REARDON: Yeah, it was rebuttal 22 23 testimony, I believe. Group 4. And the attachment 24 at the very end after the... 25 MR. BEYER: Yeah. Do you know what page?

MR. REARDON: I don't know if I can find it. 1 2 It's the last two pages. MS. ELY: 3 MR. BEYER: It's the last one? 4 MS. ELY: The last two pages. I believe it's the last two 5 MR. REARDON: 6 Thank you. And actually the -- this pages. 7 document, are you familiar with that? 8 LAUREN JOHNSTON: I don't believe I read that one in detail. 9 10 MR. REARDON: Okay. This is on the 11 Department's website. It's advice that they've been 12 giving to foresters and folks like me for at least a decade that I know of. Could you please scroll to 13 14 the last paragraph on the last page of that, second 15 page of that? So I'm just going to quote here that, MDIFW, this is their document, also recommends 16 limiting the harvest of trees and alteration of under 17 18 vegetation within 100 feet of streams and their 19 associated fringe and floodplain wetlands to maintain an intact and stable stand of trees characterized by 20 21 heavy crown closure at least 60 to 70 percent and 22 resistant to wind-throw. In some situations a wider 23 buffer should be considered where severe site conditions, steep slopes, vulnerable soils, poor 24 25 drainage, increase risk to soil and stand stability,

1 any harvest within the riparian management zone should be selected with a goal of maintaining 2 3 relatively uniform crown closure. Within the widened 100 foot riparian buffers will we be approaching 60 4 5 to 70 percent canopy closure? 6 LAUREN JOHNSTON: Likely not. 7 MR. REARDON: Likely not or absolutely not? 8 You said earlier there were no canopy trees in there. 9 It would not. LAUREN JOHNSTON: 10 MR. REARDON: Thank you. 11 LAUREN JOHNSTON: These recommendations I 12 would note are for forestry practices and they're --13 which is not compatible with a transmission line IF&W provided us -- provided CMP with 14 project. 15 performance standards specific to riparian buffer management related to transmission line construction. 16 17 MR. REARDON: Do you believe that ecological 18 impacts of a transmission corridor on brook trout 19 with the same riparian conditions are different from 20 the ecological impacts of a clearcut which would go 21 right to the stream bank? 22 LAUREN JOHNSTON: Can you ask the question 23 again? 24 Do you believe the ecological MR. REARDON: 25 impacts of no canopy closure as recommended by IF&W

1 from a clearcut next to a stream bank are different from the ecological impacts of the exact same 2 3 condition resulting from a power line corridor? I believe the way that we 4 LAUREN JOHNSTON: 5 manage riparian buffer areas is different than a 6 clearcut would be managed. 7 MR. REARDON: Would a clearcut regrow 8 eventually? 9 LAUREN JOHNSTON: Yes, it would. MR. REARDON: Legally for a clearcut in 10 11 Maine could I clear right to the stream bank? 12 LAUREN JOHNSTON: I don't believe so. 13 MR. REARDON: Thank you. In your rebuttal 14 testimony on Page 12 you state that within CMP's 15 project right of way, this is your rebuttal testimony to me, quote, moderate-sized woody debris will be 16 17 contributed to streams from dense riparian zone, 18 herbaceous and woody non-capable vegetation. Is 19 that -- did I quote that accurately? LAUREN JOHNSTON: Yes, I would say that's 20 21 probably accurate. 22 MR. REARDON: Can you estimate what would be 23 the maximum length of woody debris generated within 24 the CMP right of way, not -- not within the 25 herbaceous zone, can we stipulate that there is no

woody -- woody debris generated in the herbaceous 1 2 Or would you agree that there is no woody zone? 3 debris being generated by the herbaceous zone? 4 LAUREN JOHNSTON: Well, what I say in my 5 testimony is there is a dense riparian zone with herbaceous and woody non-capable vegetation. 6 MR. REARDON: 7 Okay. What would the maximum 8 length of woody vegetation be that we could expect to be recruited into the stream because that's where my 9 question is going from within your riparian buffer? 10 11 LAUREN JOHNSTON: I -- I can't say for sure, 12 but it would be consistent with the heights that CMP would allow the growth to -- the vegetation to grow 13 14 to. 15 MR. REARDON: So no longer than approximately 15 to 20 feet? 16 17 LAUREN JOHNSTON: That would be probably --18 probably accurate. 19 MR. REARDON: And what would you expect 20 maximum diameters to be of the woody vegetation 21 before it got cut? 22 It would be -- vary LAUREN JOHNSTON: 23 depending on species and depending on what the non-capable vegetation we're talking about is. 24 25 MR. REARDON: Would there be anything larger

1 than anything about 4 inches, do you suspect? 2 LAUREN JOHNSTON: Probably not. MR. REARDON: Are you aware of the functions 3 4 that large, woody debris serves in fisheries in terms of its provision of in-stream cover? 5 6 LAUREN JOHNSTON: T am. 7 MR. REARDON: Do you believe that if what 8 the woody debris being recruited from your riparian 9 zones is no longer than 20 feet and no bigger around than 4 inches it's going to serve those functions? 10 11 LAUREN JOHNSTON: I can't say for sure. 12 This is not particularly my area of expertise. 13 MR. REARDON: Okay. Anybody else on the 14 panel is welcome to answer. 15 MARK GOODWIN: It's obviously not going to serve to the same level of function as woody inputs 16 from a forested situation, but it's still going to 17 18 potentially provide some cover just from, you know, 19 smaller pieces, you know, leaning over the stream 20 channel or that sort of input. 21 MR. REARDON: So if a -- again, the question 22 here is what falls into the stream channel and then 23 becomes incorporated as in-stream habitat. If a 4 inch diameter 20 foot long piece of wood falls into a 24 25 stream in Maine and suffers the rain event that we

1 had last night, where does it end up? Does it -2 does it remain in the stream channel or does it move
3 down the stream to larger streams?

MARK GOODWIN: It could remain in the stream 4 channel or it could move down stream. I'll note that 5 we proposed originally a woody debris addition 6 7 component to our compensation plan and IF&W specifically told us that it would have no value and 8 9 they, you know, they thought that, you know, 10 culvert -- the culvert replacements and the 11 contribution had more value and I can, you know, my 12 personal opinion that is they didn't feel that, you know, over this course of 150 foot right of way 13 14 crossing it was significant enough impact to merit 15 woody additions.

Thank you. 16 MR. REARDON: There are two studies that both Mr. Goodwin and Ms. Johnston cite 17 18 fairly extensively in their pre-filed and their 19 rebuttal testimony. One of those is a paper that I confess I couldn't find. I did find the abstract of 20 21 it. It's the N.C. Gleason 2008 paper. I do have the 22 abstract. I have some questions related to that. 23 This was attached to my -- my testimony, but I -- I do have copies of this if that's easier than trying 24 25 to bring it up on the screen.

MR. BEYER: Is it rebuttal, Mr. Reardon, or 1 2 was it direct? 3 MR. REARDON: This was actually attached to 4 my -- yeah, I'm sorry, this was attached to my 5 rebuttal testimony. 6 MR. BEYER: Scroll down. 7 MR. REARDON: And I'll tell you it was 8 included -- it's quite short. It was included in my 9 rebuttal testimony about a page-and-half in if I remember correctly. 10 11 MS. BENSINGER: We can just bring it up, but 12 you can give it to them. No, I think it's at the end. 13 MR. BEYER: 14 MS. PEASLEE: At the end? 15 MR. BEYER: Yup. 16 MR. REARDON: Let's see. There is a quote 17 from Goodwin on Page 2 of my testimony. 18 MS. PEASLEE: In the rebuttal? MR. REARDON: 19 Yup. So the quote says a 20 study by N.C. Gleason on the impacts of power line 21 rights of way on forest and stream habitat despite 22 the open canopy condition, water temperatures were 23 slightly lower than in off right of way areas and 24 that more of the water quality parameters -- sorry, 25 none of the water quality parameters were

1 significantly different between the on right of way 2 and off right of way study areas. The Gleason study 3 also found no correlation between percent canopy cover and mean percentage of fines and no significant 4 difference in the Benthic Index of Biotic Integrity 5 6 scores between on right of way and off right of way 7 areas. I refer you to the abstract I just handed 8 you. What did Gleason find regarding percent 9 cover -- canopy cover in right of way stream segments versus upstream segments? What was the difference? 10 11 MARK GOODWIN: I think it would be pretty 12 obvious to everybody that in the right of way itself there is less -- less canopy cover. 13 Did Gleason conclude in his 14 MR. REARDON: 15 abstract that, quote, overall the elements show a decrease from ideal salmonid habitat conditions? 16 Gleason did conclude that 17 LAUREN JOHNSTON: 18 there -- that there is a decrease from ideal habitat 19 conditions, however, the standard is -- is for us to show that there is it not an adverse impact to this 20 21 habitat. MR. REARDON: Did Gleason -- thank you. 22 Did 23 the Gleason study study new right of ways or old 24 ones? 25 LAUREN JOHNSTON: The study was on old right

of ways, right of ways that had been re-established 1 2 for 30 to 50 years. 3 MR. REARDON: Okay. So we can conclude from Gleason's study that even after 30 to 50 years right 4 5 of ways will still show, quote, a decreased -- a 6 decrease from ideal salmonid habitat conditions. 7 LAUREN JOHNSTON: A decrease from ideal, 8 ves. 9 MR. REARDON: Thank you. You also cite a 10 study by Peterson. 11 MS. ELY: Excuse me, Mr. Reardon, do we want 12 to add this as an exhibit now or? The one we handed 13 out? 14 MR. REARDON: We can, yes. The abstract. MS. ELY: Can we add it as Group 4 Cross 15 16 Exhibit 2? 17 Any objection? MS. MILLER: 18 MS. ELY: Thank you. MR. REARDON: And the second handout that I 19 20 have is the full Peterson study. 21 MS. BENSINGER: Excuse me, Mr. Reardon, is 22 this new or was it in the record already? 23 MR. REARDON: This was in the record 24 already. 25 MS. BENSINGER: Okay.

1 MR. REARDON: This was attached to my rebuttal testimony, but just so people had hard 2 3 copies in front of them. And this was a quote, I believe, from Goodwin's --4 MS. MILLER: 5 Mr. Reardon, I'm sorry --6 MR. REARDON: I'm sorry. MS. MILLER: -- so we're -- just so we're 7 8 clear, where in the record... 9 MR. REARDON: This is, sorry, Attachment 1 to my rebuttal testimony that was dated March 18. 10 11 MS. MILLER: Thank you. 12 MR. REARDON: Filed on the 25th. Sorry. So you're -- the quote, and this was in Goodwin's direct 13 14 testimony incorporated into Ms. Johnston's testimony and there was similar discussion in rebuttal 15 testimony. A.M. Peterson had reported that removal 16 17 of tree canopy on new transmission line corridors 18 increases stream insulation during the short-term, 19 but within two years the areas were bordered by dense 20 shrubs and emergent vegetation and water temperatures 21 were not significantly higher than upstream forested 22 Similarly, Peterson found the stream regions. 23 reaches in electric transmission right of ways were exposed to more light and denser stream bank 24 25 vegetation were deeper and narrower and a greater

area composed of pools. Peterson's study found that 1 trout were more abundant in stream reaches within 2 3 right of ways. What did Peterson find regarding mean 4 shade in the right of ways versus outside of right of 5 ways? LAUREN JOHNSTON: Well, the -- the mean 6 7 shade in -- in right of ways would be less than 8 outside of right of ways. 9 MR. REARDON: Was it 31.5 percent in the right of way and 83 percent in forested areas 10 11 upstream? 12 LAUREN JOHNSTON: I --13 MR. REARDON: I'd refer you to Table 2 of 14 the study you cited. 15 That sounds right. LAUREN JOHNSTON: MR. REARDON: Of the various physical 16 attributes of the 15 headwater trout streams that 17 18 were analyzed in this study for how many of the 19 habitat variables was there a significant difference between on right of way and off right of way 20 conditions? 21 22 LAUREN JOHNSTON: Can you ask the question 23 again? 24 Looking at Table 2 in the --MR. REARDON: 25 in the study. Of the I believe it's 14 mean physical

1 attributes of 15 headwater trout streams in New York's -- New York 1989, of all of those physical 2 3 attributes for how many was there a significant difference between physical habitat within the right 4 5 of way and physical habitat in forested areas 6 upstream of the right of way for how many of the 14? 7 LAUREN JOHNSTON: IJm... 8 MR. REARDON: I'm sorry, it's 12. There are 9 12 total not 14. I was miscounting. 10 LAUREN JOHNSTON: I mean, I don't see the 11 response readily available. 12 MR. REARDON: Well, I can ask them one at a time. Looking at Table 2 --13 14 LAUREN JOHNSTON: Yup. 15 MR. REARDON: -- was the mean velocity different between the forested and above the right of 16 17 way or, sorry, between the right of way and forested 18 segment? 19 LAUREN JOHNSTON: I would say that's pretty 20 negligible. 21 MR. REARDON: Was the mean width 22 significantly different? 23 LAUREN JOHNSTON: Also pretty negligible. MR. REARDON: At what P level was the 24 25 difference in terms of the -- it was 3.6 in the

1 forested reaches and 2.8 in the right of way 2 reaches --3 LAUREN JOHNSTON: Right. MR. REARDON: -- and I believe the P value 4 was .04. 5 6 LAUREN JOHNSTON: Okay. 7 MR. REARDON: So would that be significantly 8 different? 9 LAUREN JOHNSTON: I -- yeah. 10 MR. REARDON: By normally accepted 11 scientific standards --12 LAUREN JOHNSTON: Yeah. MR. REARDON: -- P 5 percent? Mean depth 13 14 was 9.5 in forested reaches, 12.1 in the right of 15 way, was that a significant difference? LAUREN JOHNSTON: The P value is .02. 16 17 MR. REARDON: So that's a yes? 18 LAUREN JOHNSTON: Yes. 19 MR. REARDON: Area of pools, 25.7 and forest 20 38.3 P .02? 21 LAUREN JOHNSTON: Yup. 22 MR. REARDON: Substrate size, .8, .82, P 23 .8? 24 LAUREN JOHNSTON: Yeah. 25 MR. REARDON: Are you sure?

1 LAUREN JOHNSTON: I mean, I am agreeing with 2 the numbers that you're reading off here. 3 MR. REARDON: But that would be not a significant difference, right, for substrate size? 4 5 LAUREN JOHNSTON: I don't believe so. 6 MR. REARDON: Okay. Mean riffle fines were 7 not a significant difference, correct? It was --8 LAUREN JOHNSTON: No. 9 MR. REARDON: They were very close to each 10 other at --11 LAUREN JOHNSTON: Right. 12 MR. REARDON: -- P.09? Mean shade was 13 significant, we just talked about that. Bank cover 14 was not significantly different. LAUREN JOHNSTON: 15 Right. MR. REARDON: But -- and banks, shrubs and 16 17 grass, which were 4.6 percent of stream bank 18 vegetation of the forested reach and 91.8 percent in 19 the right of way? P .01, is that significant? 20 LAUREN JOHNSTON: .01, no. 21 MR. REARDON: It -- it would be. 22 LAUREN JOHNSTON: It would be? Oh, okay. 23 MR. REARDON: There was a 99 percent chance that it's a significant --24 25 LAUREN JOHNSTON: Right.

1 MR. REARDON: One was -- just to be clear, 2 one was 4.6 percent of vegetation was in shrubs and 3 grass and the other one was 91.8 percent of 4 vegetation was in shrubs and grass. 5 LAUREN JOHNSTON: Okay. I'm following you. 6 Yes. 7 MR. REARDON: Okay. So in sum, of the 8 physical habitat parameters that were investigated in 9 this study, 8 of the 12 that were investigated were different inside the right of way than in forested 10 11 reaches nearby, correct? 12 LAUREN JOHNSTON: Correct. 13 MR. REARDON: So the right of way has a 14 fairly significant impact on physical habitat in the 15 stream? LAUREN JOHNSTON: For 8 of the 12 it has an 16 17 impact. 18 MR. REARDON: Yes. Thank you. 19 LAUREN JOHNSTON: Significant impact. 20 MR. REARDON: Okay. Turning to Table 3, 21 which looks at the fisheries information and you 22 correctly stated that there was a -- an increase in 23 the number of trout in the right of way compared to the forested reach, but there was also a significant 24 25 difference -- is it correct there was also a

1 significant difference in both the number and biomass 2 of all fish including trout and the non-trout? 3 LAUREN JOHNSTON: Did you ask -- was that a 4 question? 5 MR. REARDON: Yes. Looking at Table 3. 6 LAUREN JOHNSTON: Okav. 7 MR. REARDON: You -- you stated, and I 8 agree, that there was a significant difference in the 9 number of trout per stream reach, 30.8 in the right 10 of way and 18.9 in the forested reach. Was there 11 also a significant difference in the number of all 12 fish per reach, not just trout but also non-trout species? 13 14 LAUREN JOHNSTON: Yes. 15 MR. REARDON: And was that difference larger or smaller than the increase in the number of trout? 16 17 LAUREN JOHNSTON: Larger. 18 MR. REARDON: So would you conclude that 19 species that are competitors with trout were doing better in the right of way, overall fish biomass 20 21 increase, but the increase was larger for trout 22 competitors than for trout? 23 LAUREN JOHNSTON: I am not sure that I can draw that conclusion. Gerry, do you want to add? 24 25 GERRY MIRABILE: Certainly. Well, based

upon the P values it appears that it -- that it 1 2 doesn't support your statement because the P value is 3 slightly smaller for the number of trout per reach, which means there is a higher probability of the 4 5 significance of the difference than it is for the 6 number of fish per reach. 7 MR. REARDON: But they were both physically 8 significant, right? 9 GERRY MIRABILE: I'm just comparing the P 10 values. 11 MR. REARDON: But they were both 12 statistically significant, correct? 13 GERRY MIRABILE: They appear to be. MR. REARDON: And the number of trout was 14 15 statistically significant, but the mass of trout, the grams of trout was not; is that correct? 16 GERRY MIRABILE: Well, based on the P value 17 18 it's not as -- it's not as likely. 19 MR. REARDON: And --20 GERRY MIRABILE: That's all we can say. MR. REARDON: And both the number of all 21 22 fish and the mass of all fish, number and grams, they 23 were both statistically significant, correct? 24 GERRY MIRABILE: Yes. 25 MR. REARDON: And the increase in trout was

from 18 to 30 in the one finding that was 1 statistically significant and the increase in 2 3 non-trout was from 62.8 to a 118.5, is that a larger difference? 4 5 GERRY MIRABILE: That is a larger absolute 6 difference. 7 MR. REARDON: Is it also a larger relative 8 difference? GERRY MIRABILE: Based upon the P value, I 9 don't believe so. 10 11 MR. REARDON: What about based on the number, which nearly doubles in one case? 12 13 GERRY MIRABILE: Absolute difference, yes. 14 Thank you. Can you bring up MR. REARDON: CMP Exhibit 3-F? I believe this was attached to 15 Mr. Goodwin's rebuttal testimony. Um, no, I'm sorry, 16 the one above it. Gold Brook and Mountain Brook 17 18 pictures. There we go. There are two pages of that. 19 I can't remember. MS. PEASLEE: Leave it there? 20 21 MR. REARDON: No. Yeah, those are blank, so 22 just, yeah, just the page with the pic in it. Thank So you're -- actually, this -- the quote here 23 you. is from Ms. Johnston's rebuttal testimony, but either 24 25 Ms. Johnston or Ms. Goodwin -- Mr. Goodwin can

answer. Your rebuttal testimony notes that the 1 2 taller structure CMP has proposed at Gold Brook to 3 allow full height vegetation within the 250 foot 4 riparian buffer management zone, quote, will also protect brook trout and other cold water fishery 5 6 species by avoiding and minimizing secondary impacts, 7 tree clearing within riparian buffer. Can you 8 explain how brook trout will benefit from the intact buffers in that zone? 9 10 LAUREN JOHNSTON: Well, the avoidance of 11 clearing maintains an ideal brook trout habitat. 12 MR. REARDON: Thank you. That suggests that the clearing has an impact on brook trout habitat; 13 does it not? 14 15 LAUREN JOHNSTON: There is no question that clearly has an impact on brook trout habitat. 16 The question is whether tree clearing has an adverse 17 18 impact on brook trout habitat. 19 MR. REARDON: Okay. I just have a couple more questions. So this is -- and I apologize, I 20 21 thought about how to do this. There are some tables 22 that are in the January 30 compensation plan and what 23 I've done is printed just the tables that I want to refer to questions from that 500 page document so 24 25 we're not flipping back and forth plus or minus 30

1 pages, so can I hand these out? And we can either 2 label these as a separate exhibit or they are all 3 direct from the -- however -- but either way is okay 4 with us.

5 MS. MILLER: I think to be helpful, let's go 6 ahead and label it as an exhibit and we'll call this 7 Group 4 Cross 3, I believe.

8 So just so you understand what MR. REARDON: this -- what this was, Exhibit I-9 of the 9 compensation plan was, I believe, the Power report, 10 11 which summarized functions and values and lots of 12 data and maps for all of the various compensation parcels. And the question here is related to both 13 14 direct testimony and rebuttal testimony, my direct 15 testimony of the assessment of the fisheries habitat values on these parcels. And so what I'd like to do 16 17 there are six parcels front and back of each page. 18 These are in the order they appear in the report.

MS. ELY: Jeff. Sorry. Sue. I wasn't able to hand out copies to everybody and so as you're going, if you could just say the names so that -- oh, thank you.

23 MR. REARDON: Yes, I can say the names of24 the parcels.

25

MS. ELY: Yeah, thank you.

MR. REARDON: Sorry. So the first table is 1 2 Table 2.1, summary of functions and values of the 3 109.77 Little Jimmie/Harwood parcel. Can -- I guess, 4 Ms. Johnston, can you read what the assessment of the function and values for fish and shellfish habitat 5 6 were? I can read this but the 7 LAUREN JOHNSTON: 8 Little Jimmie Pond tract was not proposed for 9 compensation for --10 Okay. So there are -- there MR. REARDON: 11 are no cold water fisheries values there? 12 LAUREN JOHNSTON: No, we did not propose it 13 as part of the compensation plan. 14 MR. REARDON: Okay. Did you propose a 15 Flagstaff Lake plan tract for cold water fisheries habitat benefits? 16 LAUREN JOHNSTON: No, the three -- the three 17 18 parcels that we proposed for cold water fisheries 19 habitat compensation are the Grand Falls tract, the Lower Enchanted tract and the basin tract. 20 Those are 21 the three last parcels in the document you handed out. 22 23 MR. REARDON: Okay. So not the Pooler Pond 24 tract? 25 LAUREN JOHNSTON: No.

MR. REARDON: Could you read anyway since 1 2 this was not proposed more mitigation what the 3 summary of functions and values for fish and shellfish Pooler Pond tract was? 4 5 LAUREN JOHNSTON: Well, we're proposing that 6 parcel for wetland impact offset. 7 MR. REARDON: I just want to know what the 8 assessment of the fish and shellfish habitat value of 9 it was. 10 MR. MANAHAN: I would -- I would object to 11 this question because we just established it was 12 irrelevant to the compensation plan that was 13 proposed. 14 MR. REARDON: Okay. I would like to reserve 15 the right to come back to this because I think there is a foundation for it, but I'll -- I'll move on. 16 17 Can you read from the Grand Falls tract, 18 which was proposed for cold water fisheries habitat benefits, correct? 19 20 Sure. I can read that. LAUREN JOHNSTON: 21 MR. REARDON: What does that read? 22 LAUREN JOHNSTON: As observed during field 23 surveys, the Dead River at Grand Falls is popular for brook trout and landlocked salmon fishing. 24 In 2017, 25 the segment of the Dead River crossing T3 R4 BK BKP

1 WKR where the Lower Enchanted tract is located was 2 stocked with approximately 15,550 8 to 14 inch landlocked salmon and brook trout to support the 3 fish -- the fishery for the recreational angler. 4 Fresh water muscles were observed along the muddy 5 6 shorelines of the Dead River upstream of Grand Falls. 7 MR. REARDON: Okay. Is there any 8 information there about wild fisheries in that section of the Dead River? 9 LAUREN JOHNSTON: In this excerpt that I 10 11 just read, no. 12 MR. REARDON: Yes. Elsewhere in that 13 report? 14 I can't say for sure. LAUREN JOHNSTON: 15 MR. REARDON: Would it surprise you that if I searched for the words brook trout habitat these 16 17 tables were the only place it showed up? 18 LAUREN JOHNSTON: It would not surprise me. 19 MR. REARDON: Thank you. Can we agree that 20 the summaries are largely the same just to save time 21 for the Lower Enchanted tract, in fact, fairly close to verbatim and for the basin tract? 22 23 LAUREN JOHNSTON: Yes, they are. They're 24 adjacent to each other. 25 MR. REARDON: Right. Thank you. So it's

1 the same -- same river reach with a fishery supported 2 by stock brook trout and stock landlocked salmon? 3 LAUREN JOHNSTON: Correct. 4 MR. REARDON: And those are proposed as 5 mitigation for impacts to wild brook trout at 6 headwater streams. LAUREN JOHNSTON: 7 They're proposed for if --8 they're partially proposed for impact to indirect impacts to cold water fisheries habitat. 9 10 MR. REARDON: Of the I think it's just over 11 12 miles -- of stream miles that you protect and cite 12 as protecting for benefits for impacts to brook trout how many of those miles are in those sections of the 13 Dead River? 14 15 LAUREN JOHNSTON: Can you repeat the 16 question? 17 MR. REARDON: Your testimony, which I 18 believe -- actually, I believe it was Mr. Goodwin's 19 testimony, but it was repeated in your rebuttal said that I believe it's 12.08, but it is just over 12 20 21 miles of stream habitat that are protected on the 22 compensation parcels and of those I believe 23 approximately 8, I think it's 7.7, are on the tracts we just talked about where it's supported by a 24 25 stocked fishery; is that correct?

1 LAUREN JOHNSTON: So the 12 miles that we 2 cite does not overlap with the frontage that you 3 quote for the -- on the Dead River. MR. REARDON: So it's 12 miles of streams 4 other than the Dead River? 5 LAUREN JOHNSTON: Yes. I believe -- I 6 7 believe so. 8 Okay. I'm -- I -- sorry, give MR. REARDON: 9 me a second, please. Okay. In Mr. Goodwin's testimony, and I'm sorry, I do not have a page 10 reference, but the statement is CMP will preserve, 11 12 colon, 12.02 linear miles of cold water fishery habitat including 7.9 miles of habitat and frontage 13 14 along the Dead River. So my approximately 12 total 15 and 8 on the Dead River is --LAUREN JOHNSTON: Yes. 16 17 MR. REARDON: -- proposed? 18 LAUREN JOHNSTON: Yes. 19 MR. REARDON: Thank you. And that's all I 20 have. 21 MS. MILLER: Thank you. April, do we have a 22 remaining time for Group 4? 23 MS. KIRKLAND: 42 minutes 41 seconds 24 remaining. 25 MS. MILLER: Yes, Ms. Ely.

1 MS. ELY: I just have a couple of follow-up 2 questions for Mr. Dickinson. Earlier in your 3 questioning with Attorney Boepple there was a question about the 40 year life and I just wanted to 4 5 clarify a couple of your answers. I was unclear on your answer how often CMP decommissions these lines 6 7 and I want to just get an answer. In your experience have you ever seen the decommissioning of a 8 transmission line where the poles were taken out of 9 the ground in an existing transmission line within 10 11 CMP's territory? 12 THORN DICKINSON: My expectation is that intuitively I would say yes, but I think the panel 13 later on with some of the engineering folks that do 14 15 this on a day-to-day perspective and manage the existing right of ways of CMP would be better to 16 answer that. 17 18 MS. ELY: Right. But you've given an 19 unclear answer, so I just to want clarify it. So 20 have you or have you not? 21 THORN DICKINSON: I've had -- over lunch we were even talking about the idea of the number of 22 23 lines that we knew were decommissioned, so it's hard for me to -- I would have expected there would be 24 25 lines that would be decommissioned. During lunch

I -- we had conversation about some of those that 1 were there. I think the panel that is best able to 2 3 address that is the engineers and I think they 4 probably have a few examples of where that's 5 happened. 6 MS. ELY: I still don't have a good answer. 7 So --8 I would object to this. MR. MANAHAN: 9 Mr. Dickinson has answered her question to the best 10 of his ability already two or three times and to 11 continue to badger the witness, I think, is unfair 12 and inappropriate. 13 MS. ELY: I'm not badgering. I'm trying to 14 understand, are you saying that you have -- you have 15 examples of lines that have been decommissioned or that you heard them over lunch? 16 17 THORN DICKINSON: Yeah. During lunch often 18 you talk about how the morning went and there were a 19 couple of engineers, one of which will be on the panel in the afternoon, I don't remember exactly 20 which lines he said were decommissioned. My general 21 sense in my experience in my 30 years is that lines 22 23 sometimes get decommissioned and the poles get taken down and the wires get rolled up. 24 25 MS. ELY: But in your -- what I'm trying to

get at is in your experience have you ever worked on 1 a project where you decommissioned a line? 2 3 THORN DICKINSON: I've never been a 4 transmission engineer that was responsible for 5 decommissioning a transmission line, so I would be 6 the wrong person to ask that question. 7 MS. ELY: Okay. In your experience 8 designing projects -- in your 30 years of designing 9 and building projects you're -- you're project development, correct? You work in project 10 11 development? 12 THORN DICKINSON: Yeah. So I've been, I 13 don't remember exactly, maybe six years, I've had a 14 lot of different jobs within the company, but the 15 last six years. MS. ELY: Okay. And in your experience 16 17 developing these projects when you develop a 40 year 18 project is the expectation that at 40 years it will 19 be folded up and taken out of the ground and decommissioned? 20 21 THORN DICKINSON: Well, I can tell you when 22 we -- so one of the key aspects of developing a 23 project like this is to try to build a financial model that demonstrates that your expected revenues 24 25 are going to be able to offset the costs associated

1	with the project. So if in the development of that
2	model for us to evaluate the bid price that we wanted
3	to submit we assumed no incremental value past year
4	40, so in my mind that is representative of the fact
5	that we believe this is a 40 year life. Now, at the
6	end of 40 years if there are still needs that this
7	project is meeting in New England whether they're
8	environmental or operational or economic, I would
9	imagine that there would be a conversation with
10	stakeholders around whether that project should
11	continue. If not, then I don't see a reason why
12	those that project isn't decommissioned at that
13	point.
14	MS. ELY: Okay. No further questions.
15	MS. MILLER: Thank you. So we'll go ahead
16	on to group I have Group 6 next.
17	MS. MEADER: Good afternoon.
18	LAUREN JOHNSTON: Good afternoon.
19	MS. MEADER: Bear with me. My notes are a
20	bit like a working forest at this point because I
21	am Amanda Meader with The Nature Conservancy and I am
22	working with in partnership with Sean Mahoney with
23	The Conservation Law Foundation and so as a team
24	effort we have a patchwork here of questions to move
25	through. I will be addressing my questions primarily

to Mr. Mirabile, Mr. Goodwin and Ms. Johnson --1 Johnston and Mr. Mahoney will be addressing his 2 3 questions primarily to Mr. Dickinson. Okay. 4 LAUREN JOHNSTON: Okav. MS. MEADER: I'll start with Mr. Mirabile. 5 6 On Page 12 of your pre-filed testimony you state, 7 quote, a wide variety of wildlife utilizes 8 transmission line corridors. I wonder, can you tell me, are there any species that avoid transmission 9 line corridors? 10 11 GERRY MIRABILE: Well, starting with aquatic species if they're aquatic and the corridor is 12 land-based --13 14 MS. MEADER: We've got that. Thank you so 15 much. 16 GERRY MIRABILE: Great. And, in general, I 17 would say about naming specific species, species that 18 are typically found, you know, either are required forested habitat or cover because that's not 19 available on transmission corridors will avoid 20 transmission line corridors. 21 22 Thank you. I wonder if you MS. MEADER: 23 could speak a little bit about which species are advantaged by new edge scrub/shrub. And certainly if 24 25 you feel somebody else on the panel -- certainly.

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1 That's fine.

T	That's fine.
2	GERRY MIRABILE: Yeah.
3	MS. MEADER: I could elaborate if that
4	GERRY MIRABILE: No, I understand the
5	question. I think that we were we have not
6	specifically evaluated which species would be
7	advantaged by veg habitat or scrub/shrub.
8	MS. MEADER: Okay. And I think we heard
9	testimony today that they're the more common species,
10	the species that haven't been designated as species
11	of special concern or great need, so your your
12	bear and your moose and your blue jays just for
13	example that those more common species that can
14	move easily through that type of habitat.
15	MR. MANAHAN: I would object to the
16	questioning basically supplying an answer apparently
17	that you're looking for. I object to not asking it
18	as a question.
19	MS. MILLER: Yeah, I would agree with that,
20	please.
21	MS. MEADER: Yeah, sure. I had a comma and
22	six more words with a question mark. I apologize, so
23	sorry. I'll try to rephrase that. And I guess what
24	we're just trying to look for is whether you've given
25	any thought to those species of greatest greatest

1 conservation need?

GERRY MIRABILE: The -- the species we
focused on are the species identified in comments
from the Maine Department of Inland Fisheries and
Wildlife that they identified as potentially impacted
by the project.

7 MS. MEADER: Thank you. Let's see, now I bounce to Mr. Goodwin with my second question. 8 So 9 you mentioned in testimony earlier today that there are many fragmenting features in the region and I 10 11 wonder if you can speak specifically to what 12 fragmenting features currently exists between routes 201 and Route 27? 13

MARK GOODWIN: Without a map in front of me,I don't know that I could accurately do that.

MS. MEADER: Okay. Sure. Fair enough. MARK GOODWIN: Although, I would say obviously, you know, your logging roads and forest products industry and infrastructure.

MS. MEADER: Sure. Sure. Would you agree that the only -- within that area that I just referenced that there are -- I think we had testimony from earlier today and, I apologize, I don't know who mentioned it, but there is a railroad within that area that's approximately 25 feet wide?

1 MARK GOODWIN: The railroad is slightly 2 north of the project alignment. 3 MS. MEADER: Okay. All right. And is it 4 true that the only wide fragmenting feature in that 5 area is the Spencer Road? 6 MARK GOODWIN: That's probably accurate. 7 MS. MEADER: Okay. Thank you. Bouncing 8 back to Mr. Mirabile. In CMP's application materials 9 in your pre-filed testimony you do not address the potential impacts of the proposed corridor on species 10 11 migration in response to climate and I wonder if you 12 could talk about how CMP is accounting for and addressing these impacts? 13 14 GERRY MIRABILE: I don't believe species 15 migration in response to climate change is an approval criteria. 16 17 Okay. Well, as we'll discuss MS. MEADER: Friday, which will feel like a lifetime from now --18 19 let me pause. I'm going to come back at that in a different question, okay, because I don't -- we have 20 21 enough to go through that we don't need to quibble, 22 so. 23 Mr. Goodwin, on Page 17 of your pre-filed 24 testimony, you refer to, quote, 25 environmentally-friendly manual, mechanical and

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chemical treatment on a four year schedule. Can you 1 talk to me a little bit about what that means and 2 3 when you might use one method as opposed to another? 4 MARK GOODWIN: Well, typically during the -and I take it we're talking about the management? 5 6 MS. MEADER: Correct. 7 MARK GOODWIN: Okay. Typically during vegetation management practices there is very little 8 9 in the way of mechanical clearing. It's usually in a manual, you know, clearing within the riparian 10 11 buffers and herbicide -- foliar herbicide application outside of those buffers. 12 13 MS. MEADER: Okay. And is -- can you 14 describe for us what sort of guidance or best 15 management practices or standards you have to follow in determining when to use the -- the methods that 16 are least destructive to habitat? 17 Is there no 18 playbook on let's just spray chemicals versus let's 19 manually clear? I just -- we're just trying to 20 understand where your guidance comes from there. 21 MARK GOODWIN: Gerry might be better to 22 answer this. 23 MS. MEADER: Sure. Yup. 24 GERRY MIRABILE: Could you restate the 25 question, please?

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MS. MEADER: Sure. So looking at the environmentally-friendly manual, mechanical and chemical treatments that will be employed on a four year schedule to maintain that, we're just trying to understand how -- what the decision calculus is in terms of which method you choose.

7 GERRY MIRABILE: Okay. So as Mark 8 mentioned, primarily within the -- within the 9 riparian buffers it would be mechanical only. And I'd say primarily outside of the buffers it would be 10 by use of herbicides, which -- and you had asked 11 12 about the practices, so they are hand pressurized backpack mounted applied, not broadcast, but applied 13 to individual specimens and species that have been 14 15 determined to be at risk of growing into the conductor safety zone. 16

17 Okay. Thank you. And just one MS. MEADER: follow-up on that piece, what monitoring is done, I 18 mean, when that actual field work is being done 19 presumably by third-party contractors, who is 20 21 monitoring that those best practices are being 22 followed; in other words, there is not just, you 23 know, a widespread broadcasting? GERRY MIRABILE: The crews are overseen by a 24

24 GERRY MIRABILE: The crews are overseen by a 25 person who is licensed, a licensed applicator. One 1 other thing I'll note is that we have voluntarily 2 applied the aerial spray limitations, which is for 3 aerial spraying in Maine you cannot spray when the 4 wind speed is above 15 miles an hour, we have applied 5 that to ground spraying with the express purpose of 6 eliminating or absolutely minimizing off-target 7 drift.

8 MS. MEADER: Thank you. I'll stick with you 9 if it's appropriate. I want to switch gears to CMP's 10 compensation plan. On Page 48 of your January 2019 11 revised compensation plan and also on Pages 12 12 through 13 of Exhibit 10-1, and I'm sorry to make you dig, of your revised site plan application you 13 14 propose creating eight deer travel corridors in the 15 Segment 1 deer wintering area under the overhead In those travel corridors you state that tree 16 wires. heights under the wires would, quote, generally range 17 18 from 25 to 35 feet and that the corridors would total a little more than a half a mile, about approximately 19 3,279 linear feet. And I just wonder if you could 20 21 provide, you or any of your team members, provide 22 more detail on how these travel corridors are going 23 to be created and maintained.

24GERRY MIRABILE: Okay. The travel corridors25will be essentially selectively cut from the existing

1 forest to the extent that it's wooded and some of 2 that area is not wooded currently. And if you think 3 about the conductor sag there is an imaginary line beneath the conductor that defines the conductor 4 safety zone and trees will be allowed to grow more or 5 6 less on a curve consistent with the conductor safety 7 zone and they'll be allowed to grow as tall as they 8 can grow without intruding upon that or when the -when the maintenance crew comes through if they 9 10 anticipate that individual trees would grow into that 11 conductor safety zone before the next four year 12 maintenance cycle those trees would be cut. The reason it's limited to 35 feet is that they need to 13 14 be cut from the ground so they're not being topped 15 and there is no way of accurately estimating once it gets above about that height exactly how close those 16 trees are relative to the conductor safety zone. 17 And 18 so it would be, you know, if the structures are here and here it would look something like this in profile 19 up to a height of 35 feet at which point no more 20 trees would remain between them and the structures. 21 22 Thank you. I just want MS. MEADER: Okav. 23 to take a moment and make sure I -- I had subquestions, but I think you may have answered them. 24 25 So just during the initial clearing for the corridor

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would any trees less than the 25 to 35 feet tall in 1 2 that deer wintering travel corridor, would any of 3 those be retained or it's all going to be cleared? GERRY MIRABILE: They would absolutely be 4 5 retained and, you know, so that they wouldn't have to 6 grow up from the ground level we would retain as many 7 of those as we could, however, we would require, you know, travel path between the structures and lay down 8 9 areas around structures.

MS. MEADER: Okay. And I know you're not a forester, but I would say to the extent you do have to cut down trees above that height, any sense for how long it would take those new growths to reach that height after the corridor is cleared?

15 GERRY MIRABILE: It depends upon what is 16 there in growth in a height that we can retain at the time of initial construction so that if we -- if 17 18 we're starting with tall trees that are already 19 within the conductor safety zone, we would have to take them down to the ground and any seedlings and 20 21 saplings that were already present would, you know, 22 start to grow up from that point. If the trees in a 23 particular area are at a height that they can be retained, you know, something bigger than seedlings 24 25 or saplings then, you know, right away there would be some viable travel corridors. It really depends on
 the age, class and the species of the trees within
 each of 10 or 8 to be maintained deer travel
 corridors.

5 MS. MEADER: Thank you. And how will CMP 6 provide evidence of or how will the state verify that 7 these travel corridors are being maintained as 8 intended?

9 GERRY MIRABILE: Well, IF&W, Inland 10 Fisheries and Wildlife has asked us to notify them 11 and that they would like to be present during the 12 creation and maintenance of these and so we can get 13 some feedback on that, but we'll have verification by 14 way of their oversight.

15 Thank MS. MEADER: Okay. Nope. Great. 16 vou. That's helpful. Just one more piece circling back to the corridors, the deer travel corridors, 17 corridors would total a little more than a 18 19 half-a-mile, so about approximately 3,279 linear feet, over what -- I'm not sure if this will make 20 21 sense, but over what overall distance end to end? 22 Right. The deer travel GERRY MIRABILE: 23 corridors will actually total about 1.1 miles rather than -- if you look at the total length within the 24 25 overlap between the travel -- between the corridor

and the deer wintering area, the map deer wintering 1 area is 1.1 miles and that includes the areas on the 2 east and west side of the termination stations that 3 are now and will continue to function as deer travel 4 5 corridors. And what percentage, do we know that? 6 LAUREN JOHNSTON: I don't know off the top 7 of my head. 8 MS. MEADER: Okay. I think that was 9 sufficiently helpful. 10 GERRY MIRABILE: Okay. 11 MS. MEADER: Sticking with Mr. Mirabile, has 12 CMP considered adding wildlife travel corridors in other portions is of Segment 1? 13 14 GERRY MIRABILE: It has not been suggested that other travel corridors are necessary by Inland 15 Fisheries and Wildlife. 16 17 MS. MEADER: Okay. All right. Would that 18 be something that CMP would be open to considering? 19 GERRY MIRABILE: We would have to take that back and talk it over. 20 21 MS. MEADER: Thank you. Mr. Mirabile, did 22 CMP consider co-locating the corridor with the 23 Spencer Road? GERRY MIRABILE: Has CMP considered that? 24 25 MR. MEADER: Yes.

1 GERRY MIRABILE: I think that it was 2 considered early on, you know, as a, you know, 3 potential option and there are significant 4 constraints and reasons why that's not optimal. 5 MS. MEADER: Could you explain a few of 6 those for us? 7 GERRY MIRABILE: I'm not sure I'm the best I'd defer to the real estate 8 person to explain them. 9 folks. 10 MS. MEADER: Ah, okay. That's a telling 11 answer thank you, Mr. Mirabile. Let's talk about 12 tapering. Did -- and I know you're not in the context of scenic concerns because that's not what 13 14 The Nature Conservancy's focus is, but in terms of 15 habitat fragmentation did CMP consider vegetative 16 tapering as a strategy to reduce habitat 17 fragmentation? GERRY MIRABILE: Well, the -- the deer 18 19 travel corridors in the Upper Kennebec deer wintering 20 area are in effect tapering. 21 MS. MEADER: So the --22 GERRY MIRABILE: So it's just that it's 23 longitudinal instead of cross-section. 24 So beyond deer corridors then MS. MEADER: 25 CMP didn't consider tapering to mitigate habitat

1 [fragmentation for other species?

2 GERRY MIRABILE: Habitat fragmentation was 3 not identified as a concern by IF&W. It was never 4 suggested that we consider those.

5 MS. MEADER: Mr. Mirabile, on Page 30 of 6 your pre-filed direct testimony there is a section 7 which discusses other mitigation measures. Two that are mentioned, one, vegetation tapering at Coburn 8 Mountain and Gold Brook, which is done for visual 9 impact and at an incremental cost of \$22,200 a year. 10 11 You also reference maintenance of deer winter travel 12 corridors in the Upper Kennebec in deer wintering areas at an incremental cost of \$9,400 a year. And, 13 14 again, I think we just would like to understand going 15 back to that question about coverage, end to end coverage, those two mitigation measures do have a 16 17 sense for what the scope of coverage is there; in 18 other words, what are you getting for your money? GERRY MIRABILE: When you say coverage, what 19 20 do you mean? 21 MS. MEADER: Geographic distance. 22 GERRY MIRABILE: Coburn Mountain is 2.2 23 miles for tapering and Gold Brook is 20 percent of that, so what would that be? I think ... 24 25 MS. MEADER: We can...

1 GERRY MIRABILE: Yeah, a little bit less. 2 And then, again, the MS. MEADER: 3 maintenance of the deer winter travel corridor was 4 about you said 1.1? 5 GERRY MIRABILE: 1.1 total. 6 MS. MEADER: 1.1, yup. Thank you. This is 7 where we really get into our patch work of community 8 effort here. Bear with me. Okay. Mr. Goodwin, in 9 your testimony today you stated that you would recommend mitigation for habitat fragmentation 10 11 impacts, what would you recommend specifically? 12 MARK GOODWIN: I think you're -- I think you're referring to the question that I was posed 13 14 regarding if there was a project that didn't have, 15 you know, early successional vegetation as a 16 long-term management strategy what would the mitigation, you know, what would you recommend and I 17 18 would say I would recommend managing it at an early 19 successional vegetative state. 20 MS. MEADER: Okay. Mr. Goodwin, again. On 21 Page 19 of your pre-filed rebuttal testimony you 22 state, quote, there is no basis for the TMC's staff 23 request for between 40,000 and 100,000 acres of preservation lands, end quote. Did CMP at any time 24 25 weigh the costs and benefits of providing additional

1 compensation for habitat fragmentation and have you 2 taken into in consideration the cost of working 3 forest conservation easements versus the cost of fee 4 acquisition? And I can break that up if you want. 5 MARK GOODWIN: Can you ask that again? 6 MS. MEADER: Certainly. 7 MARK GOODWIN: I'm just trying to determine 8 whether I am the right person to answer it. 9 MS. MEADER: Sure. Certainly. So on Page 19 of your pre-filed rebuttal testimony you said 10 11 there is no basis for TNC staff requesting between 12 40,000 and 100,000 acres of preservation lands. 13 MARK GOODWIN: Okay. 14 Okay. And so the first MS. MEADER: 15 question is did CMP at any time weigh the costs and benefits of providing additional compensation for 16 17 habitat fragmentation? 18 MARK GOODWIN: I don't think so. Gerry, 19 would you say that's accurate? Yeah. 20 MS. MEADER: Because --21 MARK GOODWIN: Because -- well, for one 22 there is the -- in the regulatory guidance there is 23 no established mechanism for like an in lieu fee or something like that to offset habitat fragmentation. 24 25 It's specific to wetlands and significant wildlife

1 habitats.

2	MS. MEADER: Okay.
3	LAUREN JOHNSTON: So the compensation plan
4	first satisfies the requirements under NRPA and then
5	the compensation plan also includes elements of
б	agency requests for impacts that they felt that there
7	was more mitigation required.
8	MS. MEADER: Thank you. And the second
9	portion of that question, Mr. Goodwin, was whether
10	CMP took into consideration the cost of working
11	forest conservation easements versus the cost of fee
12	acquisitions for preservation lands.
13	MARK GOODWIN: I don't believe so.
14	MS. MEADER: Okay. Thank you.
15	Ms. Johnston, a question for you.
16	LAUREN JOHNSTON: Sure.
17	MS. MEADER: Thank you. This is a long one,
18	but it pertains to culverts. So on Page 11 of your
19	pre-filed rebuttal testimony regarding CMP's proposed
20	\$200,000 contribution for replacement of undersized
21	culverts you state, quote, the significance of this
22	commitment is the amount of cold water fisheries
23	habitat connectivity that can be achieved not the
24	number of culverts whose replacement it will fund.
25	It continues, for example, if two or three culvert

1 replacement projects reconnect a larger area of viable cold water fisheries habitat than 20 smaller 2 3 projects then it may be better to choose the smaller quantity of qualitatively greater culvert 4 5 replacements, end quote. So if The Nature 6 Conservancy could rank the top 20 to 30 culvert 7 replacement projects in the region based on mileage 8 of habitat opened by each project, would CMP be open 9 to providing the level of funding necessary to 10 complete those specific projects? 11 LAUREN JOHNSTON: Yeah, I can't -- I can't 12 respond to that, but Gerry may be able to add to 13 that. 14 GERRY MIRABILE: I think it's important to 15 understand the basis for the 20 to 35 culvert 16 estimate and that is that I reached out to a contractor who does a lot of work for us, a civil 17 18 contractor, and just to get an idea of the order of 19 magnitude of how much it might cost to replace culverts and, you know, his first question was, well, 20 what size are the culverts and where are they. 21 And I 22 can tell him roughly where they are, you know, 23 Oxford, I mean, you know, Somerset and Franklin Counties, but we had to make some assumptions about 24 25 the size of culverts and I came up with some things

off the top that were not site specific. They were 1 2 just broad guidelines and I think I was estimating a And, you 3 20 inch culvert. That's a small culvert. 4 know, he was throwing out some size categories and he said he was talking 4 foot culverts and I remember 5 and then he said, how long are they? And I said, you 6 7 know, what's typical and he said, 16 to 20 feet if it's just a woods road and what's typical materials 8 and I think he mentioned HDPE or corrugated metal and 9 so that's how the estimate was made and we weren't 10 11 holding him to it. It wasn't a formal proposal. Ιt 12 was just a, you know, rough estimate based upon what I gave him for information. And the 20 to 35 is 13 14 based upon how many could be funded, you know, whatever the math works out to be for that amount of 15 money I think that was the estimate he gave per 16 17 culvert. In part because it was looked at as a job 18 where it wouldn't just be one culvert, it would be 19 multiple culverts and so there is some economy of scale in terms of materials and labor and 20 mobilization. 21 22 Thank you. I appreciate your MS. MEADER: 23 candor. Would you agree that what I hear you saying

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is that for all of the expertise that you folks have

perhaps properly sizing and siting culverts in a way

1 that allows you to properly estimate the cost isn't 2 perhaps your team's absolute strongest point? GERRY MIRABILE: Well, there are standards 3 4 for culverts that, you know, the state has, 1.2 size 5 full bank width, you know, and really the only reason 6 to estimate them like that was because at this point 7 in the program developing we haven't identified where they would be, you know, what -- where the culverts 8 9 are that need replacements and that comes later so there had to be assumptions built into the cost 10 11 estimate. 12 So then would you agree that MS. MEADER: there is potentially some flexibility in that cost 13 estimate if scientists can show that there is greater 14 15 sort of habitat support that can be provided with -with more detailed accurate sizing? 16 17 GERRY MIRABILE: So the proposal before the 18 Department is what it is at the moment. 19 MS. MEADER: It sure is. I believe that 20 brings me to Mr. Mahoney with the Conservation Law 21 Foundation, so thank you folks. 22 MS. MILLER: Thank you. 23 Sean Mahoney with the MR. MAHONEY: Conservation Law Foundation and I have question for 24 25 Mr. Dickinson. Good afternoon.

1 THORN DICKINSON: Afternoon. 2 MR. MAHONEY: So let's just start with 3 transmission line and removal. 4 MS. MILLER: Can you speak up a little bit? Sure. I'm sorry. How is 5 MR. MAHONEY: 6 that? 7 THE REPORTER: Better. Thank you. 8 MR. MAHONEY: Okay. There is no 9 decommissioning fund being proposed by CMP for this 10 line, correct? 11 THORN DICKINSON: That is correct. 12 MR. MAHONEY: The second question, the Maine 13 Power Connect was another response to the Mass RFP; 14 is that correct? THORN DICKINSON: 15 That's correct. 16 MR. MAHONEY: And you were responsible for that proposal as well? 17 18 THORN DICKINSON: I was. 19 MR. MAHONEY: And that project was a 20 proposed mix of wind, solar and battery storage, correct? 21 22 THORN DICKINSON: That's correct. 23 MR. MAHONEY: And that was in partnership with NextEra and EDP Renewables? 24 25 THORN DICKINSON: Ah, EDF actually.

1 MR. MAHONEY: EDF Renewables. Thanks. And 2 that project -- that project would have used the same 3 transmission route as this Clean Energy Connect 4 project, right? 5 THORN DICKINSON: Exactly. 6 MR. MAHONEY: And what else would that 7 project have included? 8 THORN DICKINSON: It would have included the 9 necessary amount of acreage in order to produce the 10 amount of wind, solar and battery technology to deliver on the -- on that project in Maine. 11 12 MR. MAHONEY: And those sites were proposed in Quebec and western Maine; is that correct? 13 14 THORN DICKINSON: Mostly in western Maine. 15 EDF did propose a few wind farm sites that were just over the border in Quebec. 16 17 Okay. And would those MR. MAHONEY: 18 projects also have required generator lead lines to 19 connect to the transmission lines? THORN DICKINSON: Yes, they would have. 20 21 MR. MAHONEY: Okay. And that project --22 would that -- do you know what -- can you share what 23 the ranking of that project was in comparison to 24 other projects? 25 THORN DICKINSON: We actually don't know.

We -- and obviously we were equally excited about all 1 2 our bids and it was not selected and because of the 3 way the information was redacted in the evaluator 4 report you only could tell if you won or if you didn't. 5 6 MR. MAHONEY: Okay. Thank you. Was the 7 project for the same amount of energy? 8 THORN DICKINSON: No. No. It -- a little 9 bit less -- less capacity, but significantly less energy because the capacity factor of wind and solar. 10 11 MR. MAHONEY: Okay. So how much energy 12 would that have been delivered? 13 THORN DICKINSON: You're asking me to 14 remember. Right off the top of my head, I apologize, 15 I don't remember. 16 MR. MAHONEY: Okay. In your rebuttal 17 testimony, Mr. Dickinson, you started on Page 3 18 talking about the standard of practicable for 19 purposes of this proceeding and you correctly quote the DEP regulation concerning available and feasible, 20 21 concerning cost, existing technology and logistics, 22 but then you go on to talk about the consideration of 23 undergrounding the line, right? THORN DICKINSON: Correct. 24 25 MR. MAHONEY: And on Page 13 you stated that

total cost to underground 54 miles would be \$767.9 1 2 million? 3 THORN DICKINSON: Correct. 4 MR. MAHONEY: Okay. Now, in your 5 consideration of that at that point was with respect 6 to whether or not the project would be one that would 7 qualify it in -- with respect to Massachusetts' 8 evaluation of the project, correct? 9 THORN DICKINSON: That's correct. We did the capital analysis in order to determine 10 11 essentially what the impact would be on the ranking 12 in the Massachusetts RFP process. MR. MAHONEY: And so that evaluation is 13 14 based on a business evaluation, correct? THORN DICKINSON: Yeah. Economic I would 15 call it, yeah. 16 17 MR. MAHONEY: But it's not based on the DEP 18 regulation of what is practicable for purposes of 19 determining alternatives, correct? THORN DICKINSON: Well, the -- the need --20 21 MR. MAHONEY: Well, yes or no. I mean, it 22 wasn't based on the DEP regulation, correct? Well, I object to requiring a 23 MR. MANAHAN: ves or no answer. Mr. Dickinson is entitled to 24 25 answer the question fully, so I would object to

limiting him.

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2 MR. MAHONEY: Okay. If we start with yes 3 and then we can answer it more fully, that's okay. 4 Or no.

5 THORN DICKINSON: Sure. My instinct is to 6 say that it was addressing the DEP guidelines because 7 the -- in order for the project need as defined to be successful for the project to actually be 8 9 constructed, we had -- the project had to be -receive the cost recovery. In order to get cost 10 recovery it would have had to win the RFP, so in my 11 12 mind those things are connected. And if we had considered an underground portion as I -- both I -- I 13 testified here and others is that our belief was the 14 15 project would not move forward.

MR. MAHONEY: Because it would have -- you wouldn't have been able to bid enough that would have allowed you to successfully obtain it and make the amount of money you needed to make in order for the company to take the risk of the project? THORN DICKINSON: That's correct. MR. MAHONEY: Okay. So -- so forgive me,

23 I'm going to do some math and you don't have to 24 necessarily agree with it.

THORN DICKINSON: Okay.

1 MR. MAHONEY: If I think about 767.9 million 2 for 54 miles, and you can double-check me on this, 3 you're faster at this, if I were to do a per mile 4 cost of undergrounding, I would get roughly 14 1/2 5 million per mile, if I'm using 54. And if I were to 6 spread that out over 40 years to have an annual cost 7 per mile, I would roughly get about 350,000. 8 THORN DICKINSON: 350? 9 MR. MAHONEY: Thousand per year per mile. I understand your math. 10 THORN DICKINSON: 11 MR. MAHONEY: Okay. Do you want to check 12 it? 13 THORN DICKINSON: Well, no., I mean... 14 MR. MAHONEY: I'm trying -- I'm trying to 15 get a number so that I can do an apples to apples 16 comparison. 17 THORN DICKINSON: So the -- well, there -- I 18 can address questions that come to my mind as you 19 walk through. I can follow your logic all the way to the end. 20 21 MR. MAHONEY: Sure. Let me -- let me give 22 you my logic --23 THORN DICKINSON: Okay. MR. MAHONEY: -- or let me tie this and 24 25 you'll understand why I want to try and do apples to

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1 apples.

2 THORN DICKINSON: Okay. 3 MR. MAHONEY: So we're just talking on this matter, which is talking about the cost to do the 4 5 tapering at Coburn and Johnson and in the DWA area. 6 And as I understood it the cost of that tapering in 7 Coburn and Johnson is 22,000 a year for 2.2 miles. 8 So if I were to do a per mile cost associated with tapering that's roughly 10,000, this is for operation 9 10 and maintenance, \$10,000 per year per mile of that 11 tapering. And I think that's roughly the same as it 12 was for the DWA area, which I think was in total just over a little -- just over a mile and I think your 13 14 testimony or Mr. Mirabile's testimony on Page 30 was 15 that it was about 9,500 a year, so we're roughly at 10 per year. So I'd like to do a comparison --16 17 THORN DICKINSON: Sure.

18 MR. MAHONEY: -- with respect to the 19 undergrounding which people have talked about as a 20 way to mitigate -- as a way to avoid and/or minimize 21 the impacts here. So getting back to the math that I 22 started earlier, and I am an English major, so I 23 appreciate it won't be close or may not be close, but at 700 -- roughly 768 million for the 54 miles, I 24 25 think it's roughly 14 1/2 million per mile and then

1 if I were just to divide 14 1/2 by 40 I get 350,000. 2 THORN DICKINSON: So the -- the -- when you 3 look at capital costs it isn't just -- you can't just 4 spread the cost over a period of time and say that's 5 the annual cost.

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MR. MAHONEY: Right.

7 THORN DICKINSON: There is a number of 8 factors that go into the kind of cost recovery for 9 capital costing. They include -- you're going to have operations and maintenance relative to the size 10 11 of the investment, you're going to have property 12 taxes associated with that investment, you're going to have return of -- through depreciation a 13 depreciation expense, you're going to have a return 14 15 of investment and federal income taxes. Generally, if you wanted a back of the envelope kind of a 16 17 number, you're generally looking at about 15 percent 18 of the capital cost annually associated with the 19 So I'm probably always guided not to do math cost. while I'm being cross-examined, but the end -- you 20 21 said the per mile you had a 14 --

22 MR. MAHONEY: Right. I'm just using your 23 number. I'm happy to use -- but your number in the 24 rebuttal was that the total for the funds used during 25 construction -- I'm sorry, the total for the project

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1 would be 767.9 and that was on Page 13. 2 THORN DICKINSON: Right. 3 MR. MAHONEY: I'm just -- if it's a different number... 4 5 THORN DICKINSON: Well, no, it sounds right, 6 I just don't want to do too many -- too much math. 7 So assuming 14.5 million per mile and a 15 percent what's called a fixed charge rate, which is 8 9 a -- it kind of calculates all of these pieces. It's about 42.2 million per year per mile. So 2.2 million 10 per year per mile associated with it. 11 12 MR. MAHONEY: So not 350 but \$2.2 million. 13 THORN DICKINSON: Yeah. That's what I 14 was -- I was trying to get out the point that a 15 capital doesn't -- you can't just spread it out, you 16 have all these other expenses and when you look at it on an annual basis, again, a back of the envelope 17 18 estimate is about, you know, a 15 percent charge --19 carrying charge per year. 20 MR. MAHONEY: Okay. And my -- so let's work on 2.2 million. 21 22 THORN DICKINSON: Okay. 23 MR. MAHONEY: So 2.2 million per mile on 24 undergrounding --25 THORN DICKINSON: Per year. Just -- sorry.

1 MR. MAHONEY: Per year. Per year. As 2 opposed -- and then -- and there was testimony 3 earlier today that undergrounding has its own impacts, has to be clearing and space for that as 4 5 well, there is certainly construction impacts. But on the tapering side of things that's seen as a way 6 7 to both mitigate for visual impacts, which as I 8 understand it for the Coburn/Johnson, I don't want to get into visual, it's just that's my understanding of 9 that purpose, but for the DWA that is for habitat and 10 11 habitat fragmentation issues with respect to deer 12 wintering yards. So my question to you would be why wouldn't 7,000 -- I'm sorry, 10,000 per mile for 13 14 tapering be considered a reasonable cost for purposes 15 of minimizing the impact associated with habitat fragmentation? 16 17 I quess for me THORN DICKINSON: Yeah. 18 that's not an area -- looking at what the -- the 19 mitigation is versus the impact wouldn't be in my

20 area of testimony. I mean, clearly, the 2 -- \$10,000
21 per mile per year is cheaper than \$2.2 million per
22 mile per year.

23 MR. MAHONEY: Right. Right. So it would be 24 about 25 percent if you did the entire 54 miles, that 25 would be 540,000 per year for tapering if you did the 1 entire 54 miles, correct?

5

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2 THORN DICKINSON: Assuming that that was a 3 doable exercise and there weren't issues associated 4 with tapering that distance --

MR. MAHONEY: Right.

6 THORN DICKINSON: -- then I think the math 7 is correct.

8 MR. MAHONEY: And -- and so when -- when 9 you're considering reasonable, what do you -- what 10 are you comparing that reasonable to? And I -- not 11 just -- well, we didn't think that would get us the 12 bid, what -- what -- so there is clearly a return on 13 this investment for CMP if this transmission line 14 were to go forward, correct?

THORN DICKINSON: Yeah, correct.

MR. MAHONEY: And so the cost that you're incurring in the construction and the operations and maintenance are -- are being compared with the return on the investment you're making in order to determine whether or not it's reasonable or is a good use of resources for CMP/Avangrid, correct?

THORN DICKINSON: Yeah. I mean, just to -just to be clear, we have both with Massachusetts Electric Distribution Company and with Hydro-Quebec as a long-term user of the transmission line comitted

to a four year fixed revenue, so the -- anything that 1 happens on the project related to it is a risk that 2 3 we incur not only between the time the project was 4 originally to -- to now and from now until 5 construction and then as the project continues to be 6 operated. So within that context in this type of a 7 evaluation on a bid you're looking at the revenue, making sure that that's certain and then you're 8 9 comparing that against all your operating expenses 10 and cost, the construction and all of the risks that 11 could happen over -- over the life of the project. 12 So just to make sure that we're all kind of looking at the issue the -- the same way. And then within 13 that we're -- we're, you know, obviously trying to do 14 15 a number of things and I think as I say in my rebuttal testimony it's not just about cost, you 16 know, cost was a significant part of the Mass EDC 17 18 requirement, they talked a lot about cost, they 19 talked about cost containment, not -- cost overruns 20 not being passed on to Massachusetts EDC customers, but also we had to make sure that we minimized 21 22 impacts and that we had to make sure that we can 23 maintain the quality and the safety of the project, so all those things are balancing factors in the way 24 25 that we sited the line, the way that we mitigated

impacts associated with it, the design we ultimately
 picked and then as the conversations have continued
 to move forward how we mitigate those impacts.

MR. MAHONEY: But you would agree with me that if you tapered the entire 54 miles of Segment 1 that that would minimize and mitigate impacts that aren't currently minimized or mitigated under the --under the proposal that's before the Department at this point; is that correct?

10 GERRY MIRABILE: Well, Mr. Mahoney, I think 11 the -- there are impacts to the project and, you 12 know, if you look at the avoidance of impacts and then the minimization and the mitigation of 13 unavoidable impacts, we've gone through that -- that 14 15 process throughout the planning and the design and the impacts that remain that we're compensating for 16 and mitigating for, you know, we haven't been -- it 17 18 hasn't been suggested that additional, you know, by 19 the agency certainly that additional mitigation is 20 appropriate or necessary because we've done as much 21 as we have as documents in the compensation plan to 22 mitigate for those impacts.

23 MR. MAHONEY: Right. But the purpose of 24 this proceeding is to determine whether or not that's 25 good enough or if more needs to be done, correct?

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1 GERRY MIRABILE: That's... 2 MR. MAHONEY: Is that your -- is that your 3 understanding of why we're all here for the week? 4 GERRY MIRABILE: I think it's to gather more 5 information on the topics designated by the Presiding Officer. 6 7 MR. MAHONEY: I understand. And whether or not it's reasonable or cost-effective, you would 8 9 agree that if the entire 54 miles were tapered in the same way that it's proposed to taper in the Coburn 10 11 Mountain area that that would minimize and mitigate 12 the impacts that are currently associated with the 13 project as currently proposed? 14 GERRY MIRABILE: I would defer to the 15 visual, you know, experts to learn more about on that 16 issue and the question is whether the tapering is 17 necessary in other areas to, you know, for wildlife 18 purpose and, you know, we haven't -- we haven't 19 reached that conclusion. 20 MR. MAHONEY: Okay. And from a -- and, 21 Mr. Dickinson, from a project management perspective 22 determining the reasonability of it goes to both --23 goes to whether it is a cost-effective project for 24 the company, correct? 25 THORN DICKINSON: That's correct.

1 MR. MAHONEY: And that has to be balanced 2 based on your income and the cost, correct? 3 THORN DICKINSON: Yeah. It has to do -- as 4 I said, I think it has to -- it's a balance between 5 all of the factors making sure that it's a -- it's 6 safe, that we -- efficient, quality, that we minimize 7 the impacts and the cost, so I think all of these 8 things go into those -- those decisions. 9 MR. MAHONEY: And what is the annual impact that anticipates -- annual income that's anticipated 10 11 from the project should it be approved in its current 12 state? 13 THORN DICKINSON: I am not 100 percent that 14 that is a public number that's available. I think 15 there is various analyst reports out there that may have indicated that, but as far as what -- what the 16 net income was I don't -- I don't think that's 17 18 public. 19 MR. MAHONEY: Okay. That's all I have. 20 Thank you very much. 21 MS. MILLER: Thank you. Okay. We'll go 22 through -- we have Group 7 and 8 and after that we'll 23 take a short break. So we'll start with Group 7. 24 Okay. We'll go ahead and just take a guick 25 5 minute break right now.

1 (Break.) 2 MS. MILLER: Okay. Let's think about 3 getting ready to get started again. Before we do, I 4 just want to make a quick announcement and make sure 5 everyone is aware when your microphone is on or off. 6 There are a lot of people watching today 7 live-streaming and there are a lot of side 8 conversations that might be heard, so I just want to 9 remind everyone, and that includes our table, to press the button and make sure the blue light is off 10 11 when you're not intending to be speaking to be heard 12 by the public. With that, we'll go ahead and restart and 13 14 we've got Group 7 cross-examination. Good afternoon. Ben Smith on 15 MR. SMITH: behalf of Western Mountains and Rivers, Group 7. Mr. 16 17 Mirabile, I actually brought that from your 18 application materials to the desk hoping that I could 19 maybe ask you some questions during your examination. GERRY MIRABILE: 20 Sure. 21 MR. SMITH: So the first area of questioning 22 I had is a follow-up to some questions of 23 Mr. Weingarten and Mr. Publicover. I heard characterizations during questions by them that the 24 25 area basically the new segments that are comprising

1 the knew corridor 53 miles are a large intact forest block or are a part of a large intact forest block 2 3 and then I heard, I think, a question of where is the 4 evidence to support the area of the project that has 5 been intensely harvested. So I brought before you 6 your application from August 13 and I have a question 7 with regard to Attachment C. And in particular, I am looking at essentially the natural resource maps for 8 9 Segment 1 and I'm going to start on Page 9 of that document if you can reference it. 10 11 GERRY MIRABILE: So do you mean Map 9? 12 MR. SMITH: No, actually I flagged it off 13 before. It's part of Segment 1 and it would be -- I 14 think the first segment you depicted under Attachment 15 C and it would be the tenth page in or nineth page in, 9 out of 417. 16 17 GERRY MIRABILE: Okay. 18 MR. SMITH: Okay. So are you on the right 19 page at this part? 20 GERRY MIRABILE: It's Beattie Township and 21 Merrill Strip Township? 22 MR. SMITH: Yes, sir. 23 GERRY MIRABILE: Yes. 24 MR. SMITH: All right. So is there anything 25 on that photo or on that depiction that would look

1 like it's part of a large intact forest block? 2 GERRY MIRABILE: There are some very 3 prominent strip cuts that -- and some skid trails and 4 then there are smaller patches of what appear to be 5 forest. Anything else? 6 MR. SMITH: 7 GERRY MIRABILE: Roads. Two roads. 400 8 Road and then another road that peels off from that 9 that's not labeled. 10 MR. SMITH: And the difference between roads 11 versus the strip cutting you're talking about is one 12 of those a hard development versus a soft development? 13 GERRY MIRABILE: I would characterize roads 14 15 as a hard development. 16 MR. SMITH: Okay. So you have both hard and 17 soft developments in this location? 18 GERRY MIRABILE: Yes. 19 MR. SMITH: If you were to compare a totally 20 vegetated area of this map to the area that is 21 comprised by the clearcut, the hardscape of the road 22 versus a world where it would just be the 23 transmission line going through there, which one would comprise a greater area of cleared land? 24 25 GERRY MIRABILE: Well, that would take some

mapping exercise to calculate that to quantify it 1 specifically. I think roughly at this scale it 2 3 appears that there might be equal between the two. 4 MR. SMITH: Okay. Let's go to the next page 5 it you can, please. Page 10 of 417. Does this slide 6 depict anything that would be considered a part of a 7 large intact forest block? 8 GERRY MIRABILE: It appears to be laced with 9 strip cuts, roads, skid trails. 10 MR. SMITH: Okay. Same roads that we were 11 talking about before? 12 GERRY MIRABILE: One of the same roads, 400 Road and another road that is not -- is not labeled 13 or identified. 14 15 MR. SMITH: Okay. Let's go two slides down to Page 12. I'll ask you the same question. 16 17 Anything here that would depict an area that would be 18 part of a large intact forest block? 19 GERALD MIRABILE: I would not characterize it that way. 20 21 MR. SMITH: Why not? 22 GERRY MIRABILE: Because large areas are 23 either recently stripped based upon parallel lines --I mean, recently a strip cut based on parallel lines 24 25 or appear to have been cleared of trees.

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1 MR. SMITH: So in other words, the areas 2 that we're talking about here are actually not just 3 simply strip cut, they're clearcut? 4 GERRY MIRABILE: It appears to be a clearcut 5 from the photograph. MR. SMITH: And are there roads on there as 6 7 well? 8 GERRY MIRABILE: Yes, there are. 9 MR. SMITH: What roads? GERRY MIRABILE: Lowell Town Road and 400 10 11 Road. 12 And if you were to compare MR. SMITH: 13 essentially going back to the question I had earlier 14 on slide 9, a world where it would just be the 15 transmission line going through here versus a world 16 where you have these hard developments and you have these heavily forested areas, which one would 17 18 actually occupy a greater amount of space? 19 GERRY MIRABILE: I would expect in this case 20 it would be the strip cuts and clearcuts just based 21 upon the visual. 22 Okay. Let's go to Page 13. MR. SMITH: Ιf 23 I asked you the same question I asked you before with 24 regard to this would it be the same? 25 GERRY MIRABILE: Yes, it would be the same.

MR. SMITH: And let's go to the next page. 1 2 Would it be the same with regard to this map? Yes, it would be the same. 3 GERRY MIRABILE: 4 MR. SMITH: And I've already -- I'm not 5 going to go through the 417 pages right now, I think 6 we'd be here for a very long time. But would you say 7 that generally the sort of representations that we've been going through are similar in nature to the 8 9 various depictions you would see for entire Segments 1 and 2 for the 54 mile? 10 11 GERRY MIRABILE: Well, as Mr. Goodwin noted, it's a mosaic. It's a patch work and so, you know, 12 we could find maps in here that were not and maps 13 14 that are, but I think these are -- these might be 15 considered typical. Okay. I'd like to just briefly 16 MR. SMITH: 17 address the concept of undergrounding, which was 18 raised by a couple -- a couple different people. Are 19 there people on the panel that have a pretty good amount of familiarity with undergrounding that's 20 21 required from an engineering standpoint? I see 22 people nodding, is that a yes? 23 THORN DICKINSON: Well, I just -- there is testimony that will be in -- that is in rebuttal 24 25 testimony from engineers that have much more

1 experience.

2	MR. SMITH: Okay. Well, maybe I can
3	maybe if I get into it and if I get too deep you can
4	tell me if I should defer to a different panel.
5	THORN DICKINSON: Fair enough.
б	MR. SMITH: So, I guess, is there I
7	guess, generally, explain to me what would be
8	required to go through this sort of 54 mile area?
9	What would have to be cleared for the for the area
10	from a vegetation standpoint? What would have to be
11	done in order to essentially allow for an
12	undergrounding of this line?
13	GERRY MIRABILE: So I'm going to qualify
14	this response by saying that there are others here
15	who know more and if I if I misspeak anything I
16	want to allow them to correct me, but my
17	understanding of undergrounding is that it would
18	require a clearing of something like 75 feet width
19	for the vegetation to be maintained similar to how
20	it's maintained for a transmission line corridor. In
21	other words, non-capable vegetation and no large
22	trees and that has to do with the idea that large
23	trees which typically have a root span that extends
24	at least as far as the drip line extract water from
25	the soil and affect the thermal rating of the

1 transmission line and its capacity as a result. So that it -- it wouldn't just be the width of the -- of 2 the transmission line buried itself, it would have to 3 be cleared out 75 feet. The actual excavation, 4 depending upon the method, I understand it would be 5 6 something like 12 feet at the top for a trench of 12 7 feet that would taper down maybe 5 feet at the bottom 8 and then there would also be depending upon the method there would be junction boxes at some 9 10 intervals, so that it wound be just the burial of the 11 line, there would be significant, you know, on ground 12 impacts would be maintained in that condition. Okay. Is it fair to say that 13 MR. SMITH: 14 even if the project were to be underground or even if it was feasible or even if it was economical that 15 there is no way it could be done without there being 16 a visual impact? 17 GERRY MIRABILE: There would be a visual 18 19 impact. 20 And a 75 foot would have to be MR. SMITH: cleared and maintained for whatever duration of the 21 2.2 line? 23 GERRY MIRABILE: That's my understanding. This is Joanna Tourangeau MS. TOURANGEAU: 24 25 I'm going to object that this is beyond for NextEra.

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1 the scope of anyone's direct or rebuttal testimony on this panel. 2 3 MR. SMITH: It came up in the scope of 4 cross. I can -- I can move on. Is anyone on the --5 on the panel aware of what the biggest threat is to 6 Maine's brook trout population? 7 GERRY MIRABILE: I would -- I would state, 8 you know, my personal belief is that climate change 9 is a significant threat to brook trout populations. 10 Are you aware that the Maine IFW MR. SMITH: 11 actually says that currently the greatest threat to 12 Maine's brook trout population is the unauthorized introduction of competing fish species? 13 14 MS. BOEPPLE: Objection. This sounds like 15 testimony coming from the questioner. 16 I asked if they were aware. MR. SMITH: Ι can bring it up with a different witness later, but. 17 18 MS. BENSINGER: What is -- I am not sure 19 that this is in response to the direct testimony that this is -- is a subject on which they testified. 20 21 MR. SMITH: There were -- there were 22 questions earlier today about the adequacy of 23 buffering and the threat that that would have on the This is to address that issue. salmonid population. 24 25 I'll allow it. MS. MILLER:

1 If you know. MR. SMITH: 2 GERRY MIRABILE: Could you restate the 3 question? 4 MR. SMITH: The question was are you aware 5 that the IFW states that currently the greatest 6 threat to Maine's brook trout population is the 7 unauthorized introduction of competing fish species? 8 GERRY MIRABILE: I was not aware of that. 9 MR. SMITH: No further questions. Thank 10 you. 11 MS. MILLER: Okay. We'll call up Group 8. MS. TOURANGEAU: Good afternoon. 12 I'm Joanna Tourangeau on behalf of NextEra also known as Group 13 14 I have a few follow-up questions on the topics 8. 15 raised by IECG earlier. Did the NextEra/CMP proposal include a HDVC transmission line? 16 17 THORN DICKINSON: No, it was a high voltage 18 AC alternating current line. 19 MS. TOURANGEAU: Thank you. Did the 20 NextEra/CMP proposal include in the bigger footprint 21 that they mentioned Maine wind and solar generation? 22 THORN DICKINSON: Could you repeat that 23 again? 24 MS. TOURANGEAU: Did the NextEra and CMP 25 proposal that was described earlier today as having a

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1 bigger footprint include Maine wind and solar 2 renewable generation? THORN DICKINSON: Yes, it did. 3 4 MS. TOURANGEAU: Thank you. Does the 5 current proposal include Maine renewable generation of wind and solar? 6 7 THORN DICKINSON: It does not. 8 MS. TOURANGEAU: Did NextEra and CMP submit 9 any applications to the Department or to the LUPC requiring an alternatives analysis? 10 11 THORN DICKINSON: We did not. 12 MS. TOURANGEAU: Thank you. So staying with 13 you, sorry, Mr. Dickinson. 14 THORN DICKINSON: That's okay. 15 MS. TOURANGEAU: Now, going to your rebuttal 16 testimony and starting on -- around where you were on 17 Page 3 where you indicate that projects have to 18 include a mechanism for cost recovery. 19 THORN DICKINSON: Correct. 20 MS. TOURANGEAU: So you bid a fixed price 21 cost project with Hydro-Quebec into the 2017 2.2 Massachusetts RFP? 23 THORN DICKINSON: Correct. 24 MS. TOURANGEAU: Because they encouraged 25 bidders to propose a fixed price.

THORN DICKINSON: 1 They --2 MS. TOURANGEAU: In part. THORN DICKINSON: Yeah, in part to put 3 4 forward, as I said before, a number of factors that 5 we believe were important to make our project as 6 competitive as possible. 7 MS. TOURANGEAU: Gotcha. And your fixed cost bid, and I'm sorry, I don't understand these 8 9 terms, I'm just an environmental attorney, so I'm looking for you to elaborate on the utility process 10 11 for me a little bit. The fixed cost bid include a 12 transmission cost containment such as provisions that eliminate or minimize rate payer exposure to 13 14 transmission cost risk. That's what you said on Page 15 6 of your rebuttal testimony. THORN DICKINSON: Yeah. Correct. 16 17 MS. TOURANGEAU: Okay. And so any 18 additional project costs like undergrounding or 19 additional tapering will not be borne by ratepayers or anyone other than CMP or its affiliates that end 20 21 up owning the line? 22 THORN DICKINSON: That's correct. And just 23 to be clear because -- just so that there -- the record is clear of what we're talking about is 24 25 Massachusetts ratepayers, so under no circumstance

1 under any situation would -- would Maine cost to the 2 ratepayers be affected, but the Massachusetts also 3 wouldn't because it's a fixed price bid. 4 MS. TOURANGEAU: So no one other than CMP or 5 its affiliates that owns the transmission line? 6 THORN DICKINSON: Correct. 7 MS. TOURANGEAU: Right. Can you read to me 8 I think it was on Page 1 or 2 of your rebuttal 9 testimony your description of the project purpose? I'm sorry, it's on Page 3, your first full paragraph 10 11 which begins, as I stated in my pre-filed direct 12 testimony. 13 THORN DICKINSON: Okay. Yeah, as I stated 14 in my pre-filed direct testimony the overall purpose 15 of NECEC is to deliver up to 1,200 megawatts of renewable generated electricity from Quebec to ISO 16 17 New England electric grid at the lowest cost for 18 ratepayers. 19 Right. So as we've MS. TOURANGEAU: discussed earlier, the project purpose cost to 20 21 ratepayers would not be impacted by the 22 undergrounding or the increased tapering; is that 23 correct? 24 THORN DICKINSON: So the -- just to be 25 clear, the --

1 MS. TOURANGEAU: Is that correct? 2 No, it's not correct. THORN DICKINSON: 3 MS. TOURANGEAU: So the cost would go to ratepayers? 4 5 THORN DICKINSON: NO. Let me -- let me 6 explain what I mean. 7 MS. TOURANGEAU: Okay. 8 THORN DICKINSON: So our -- our bid, what we 9 actually evaluated and bid had to assume a number of 10 risks associated with it. So we had to think about, 11 okay, what is it going to cost us to build this, you 12 know, contingencies associated with the project, that process of determining that we needed to make a 13 decision on what we thought the lowest cost was to 14 15 ratepayers, so in this context that's what we're 16 really talking about. Now, once you put a bid in, once you commit to it in a RFP and once we have 17 18 negotiated and signed an agreement your point is 19 correct that any additional changes beyond what was already established in our original bid, any of those 20 21 changes beyond would be borne not by ratepayers but 22 us, but anything that -- any assumptions that were 23 included in our bid that would be borne by customers in Massachusetts. 24 25

Right. So the -- as the MS. TOURANGEAU:

1 cost is contemplated in your project purpose, that 2 being lowest cost to ratepayers, that would not be 3 impacted by those changes that we've been talking 4 about of undergrounding or tapering?

5 THORN DICKINSON: Any -- any changes plus or 6 minus. Now, once the bid is in and fixed that has no 7 effect on the remuneration of the money that received 8 from Massachusetts customers.

9 MS. TOURANGEAU: Great. I think I'm set on Does your application, and I know folks are 10 that. 11 going to ask about the financial assurance component, 12 but does your application include the financial assurance necessary for decommissioning and removal 13 of a line upon expiring after its 40 year life? 14 15 THORN DICKINSON: Yeah. No, there are -- as stated before, there is not a decommissioning fund --16 17 MS. TOURANGEAU: Right. 18 THORN DICKINSON: -- or assurances. 19 MS. TOURANGEAU: For any financial 20 assurances related --21 THORN DICKINSON: That's correct. 22 -- to this project? MS. TOURANGEAU: 23 THORN DICKINSON: That's correct. MS. TOURANGEAU: So we have to assume that 24 25 there is no cost coverage for that.

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1 MR. MANAHAN: I would object to this line of 2 questioning. It's not relevant to the hearing 3 topics. There is four hearing topics here and I don't see how decommissioning is relevant to these 4 5 hearing topics. 6 MS. TOURANGEAU: I think the door was opened 7 when he was specifying that the project had only 8 be -- could only be --9 MR. MANAHAN: Well, you'll have to --10 MS. TOURANGEAU: -- around for 40 years. 11 MR. MANAHAN: You'll have to -- Ms. 12 Tourangeau has to explain how the door was opened because it's not a hearing topic. 13 MS. BENSINGER: I would recommend to the 14 15 Presiding Officer that the question be allowed because the Applicant's witnesses testified that it 16 was not a permanent impact, so it went to the nature 17 18 of the impacts line of questioning. 19 MS. MILLER: And I would agree. I'll go 20 ahead and allow it in. 21 MS. TOURANGEAU: Thank you. I think you've 22 asked -- you've answered it already. 23 THORN DICKINSON: Okay. MS. TOURANGEAU: Thank you. Did you look at 24 25 tapering all of Segment 1?

1 THORN DICKINSON: No. 2 Okay. Thank you. MS. TOURANGEAU: These questions are for Burns and McDonnell. And I'm not 3 4 certain if they apply to you folks or not, but if you 5 can be helpful that's wonderful. Your work on this 6 project included assessing the impacts associated 7 with the transmission of power? 8 MARK GOODWIN: The impacts of the? 9 MS. TOURANGEAU: Impacts to the environment. Why we're here. 10 MARK GOODWIN: From construction of the 11 12 facilities, yes. 13 MS. TOURANGEAU: Mmm Hmm. Construction and 14 operation you're looking at kind of how to mitigate 15 the -- mitigate, avoid, compensate for those impacts? MARK GOODWIN: For construction of the 16 project, yes. 17 18 MS. TOURANGEAU: Okay. Not for operation? 19 MARK GOODWIN: Just -- just the construction best management practices, avoidance and minimization 20 21 measures that are included in the description of 22 maintenance requirements for the project. 23 LAUREN JOHNSTON: There was a vegetation 24 maintenance --25

MS. TOURANGEAU: Right.

1 LAUREN JOHNSTON: -- component to that -- to 2 our application material. 3 MS. TOURANGEAU: Which was kind of an 4 ongoing item that would be applicable at the 5 post-construction phase? LAUREN JOHNSTON: Correct. 6 7 MS. TOURANGEAU: Right. Did your work 8 assessing how to avoid, mitigate and compensate 9 include looking at alternatives like undergrounding or tapering? 10 Initially, no. And Burns and 11 MARK GOODWIN: 12 McDonnell wasn't involved with the evaluation of 13 undergrounding. 14 MS. TOURANGEAU: Okay. Have you done that 15 work for other projects? 16 MARK GOODWIN: Evaluation of --17 MS. TOURANGEAU: Undergrounding. 18 MARK GOODWIN: -- undergrounding and 19 tapering --20 MS. TOURANGEAU: Mmm Hmm. 21 MARK GOODWIN: -- for other projects? 2.2 MS. TOURANGEAU: So Burns and McDonnell as 23 an entity hasn't done that for any other project? MARK GOODWIN: I can't -- I mean, we're a 24 25 company of almost 7,000 employees, I can't really

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1 speak to the entire company's experience on that. 2 MS. TOURANGEAU: Okay. But you -- you 3 haven't done any of that analysis for the alternatives analysis for this project? 4 5 MARK GOODWIN: Not for undergrounding. 6 MS. TOURANGEAU: Okay. Are you aware of the 7 five outstanding river segments that have been 8 discussed earlier today? 9 LAUREN JOHNSTON: Yes. MS. TOURANGEAU: And the use of Spencer 10 11 Road? 12 LAUREN JOHNSTON: Yes, we're aware of that. 13 MS. TOURANGEAU: And the shoulder passage I 14 think it is over Coburn Mountain associated with the 15 project? LAUREN JOHNSTON: Yes. 16 17 MS. TOURANGEAU: Does it -- did you or 18 anyone else on the project look at undergrounding to 19 address the impacts associated with those portions of the project other than, as we all know, the crossing 20 21 of the Upper Kennebec? 22 LAUREN JOHNSTON: I don't know that Burns 23 and McDonnell are the right people to answer that 24 question. 25 MS. TOURANGEAU: Okay. Thanks.

Mr. Dickinson, can you or Mr. Mirabile answer that 1 2 question? 3 THORN DICKINSON: Yeah, we did not consider 4 it. 5 MS. TOURANGEAU: Okay. Thank you. That's 6 all my questions. 7 MS. MILLER: Thank you. 8 MR. MANAHAN: Ms. Miller, this is Matt 9 Manahan. I have a -- just a couple redirect 10 questions for before the next panel. 11 MS. MILLER: We're going to do the 12 Department's questions first and then we'll do 13 redirect. 14 MR. MANAHAN: Thank you. 15 MR. BEYER: Mr. Dickinson, in your testimony you specified that data delivery was one factor that 16 17 the Massachusetts RFP considered. Would burying the 18 line take longer to construct than on overhead installation? 19 20 THORN DICKINSON: Yeah, I think all else 21 being equal, I think it would be a longer project, 22 yes. 23 MR. BEYER: How much? THORN DICKINSON: I think I would -- it --24 25 I -- I would leave it to the engineers to tell me a

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1 little bit more about that, so. 2 MR. BEYER: Okay. 3 THORN DICKINSON: It's a more complicated 4 process, so. 5 MR. BEYER: Why did you choose HVDC 6 technology? 7 THORN DICKINSON: So for the Hydro-Quebec bid, Quebec is what we'd say non-synchronized with 8 the rest of the U.S. grid around it and really around 9 the other components and what that means is that if 10 11 you were to line up the alternating current to the 12 typical sign wave --13 MR. BEYER: Yup. 14 THORN DICKINSON: -- they wouldn't match-up, 15 so you can't connect two alternating current system where those two sign waves aren't aligned. As a 16 result, you need essentially a clutch sort of between 17 18 these two regions and a direct current system 19 provides that clutch. By converting from alternating current in Quebec to direct current and then from 20 21 direct current back to alternating current you have 22 that clutch that exists. Now, as soon as you make 23 that commitment, the -- the DC line -- the HVDC line actually is much more efficient in delivering 24 25 energy -- probably about twice as efficient at

1 delivering energy over long distances. So once 2 you -- once you have an engineering requirement of creating a conversion from AC to DC from DC back to 3 4 AC, the best thing you can do is to try to broaden 5 out that -- that spread between the converters and 6 that's why the converter station 50 or so miles into 7 Quebec and then into Lewiston is the -- why that --8 the length of that was there.

9 MR. BEYER: Okay. In Mr. Russo's pre-filed 10 testimony, he discusses that the HVDC technology is 11 subject to faults. And I'm a fish guy by training, 12 so would undergrounding the line eliminate some of 13 those risk of faults?

THORN DICKINSON: Again, I'll leave it to 14 15 the engineers that really study this more. There are some operational issues actually with an 16 undergrounding -- undergrounding line and it has to 17 18 do with the ability to locate a fault and an ability 19 to clear it once you -- once you have located at the time the fault. I think it's better to leave it to 20 21 them, but, you know, the -- we believe that an 22 overhead transmission line whether it was alternating 23 current or direct current can be operated efficiently and effectively. 24

25

MR. BEYER: Okay. In the areas where the

project is co-located, would it be possible to locate 1 the conductors existing structures or is that not --2 3 ISO New England wouldn't let you do that? 4 THORN DICKINSON: I hate to keep punting to 5 my -- my engineering friends, but I think they're 6 going to be better able to answer that. There is --7 there -- you know, one of the limits associated with this size of this line, the 1,200 megawatts, is 8 what's called a single loss of supply condition for 9 the ISO, so they don't want any individual line or 10 11 any individual generator that's more than 1,200 12 megawatts to have the probability of dropping off, 13 so. 14 MR. BEYER: Okay. 15 THORN DICKINSON: To your point is the more you put at risk more than one element of a 16 transmission line, so if you had at a 1,200 megawatt 17 18 plus another line that maybe could handle another 4 19 or 500 megawatts my -- my guess would be that that

20 would create a real major reliability issue for the 21 ISO. You need to be able to demonstrate that a 22 separate line of 1,200 megawatts is a -- has a single 23 point of failure.

24 MR. BEYER: So if I understand you correctly 25 what you're saying is if something happened to that

1 one structure with two lines on it, now all of a 2 sudden you're out 1,600 megawatts? 3 THORN DICKINSON: Correct. Correct. 4 MR. BEYER: Okay. 5 THORN DICKINSON: And just so -- why that's 6 important is the whole market around the ISO pays 7 generators that has the ability to react instantaneously to outages like that. So they --8 9 they need to make sure that they're not over paying, so having 1,200 megawatts that has the ability to 10 11 react within a certain period of time makes sense, 12 but they believe that the risk of anything more than that that is too significant. 13 MR. BEYER: 14 Okay. Mr. Mirabile, 15 construction around the streams that contain Roaring Brook Mayfly and spring -- Northern Spring 16 Salamander, during construction I understand 17 18 ultimately there will be full height, full canopy height, how much of that will you need to cut in 19 order to construct the line? 20 GERRY MIRABILE: I would need to consult 21 22 with the access plan on the natural resource maps in 23 those particular areas to know for certain because how much we'd need to cut depends upon how we would 24 25 access the corridor. So if we're coming into the

1 corridor from off corridor in several locations --2 MR. BEYER: Yup. 3 GERRY MIRABILE: -- that would reduce --4 potentially reduce the need for clearance within the 5 corridor and, you know, we can quantify that more 6 specifically by consulting the natural resource maps. 7 MR. BEYER: But you don't -- my -- you don't 8 have to clear the whole --9 MR. BEYER: Not at all. I mean, I would think it would be a travel corridor of something like 10 11 12 to 16 feet or to, you know, for the equipment 12 required to install the structures and -- and then lay down areas around the structure installation 13 14 locations to, you know, actually put the pieces 15 together for the structures to erect them. MARK GOODWIN: I don't know if it will -- if 16 17 it will be that easy to view on the screen there, but 18 Exhibit CMP-3-F would give you a good depiction of what areas need to be cleared. 19 Pre-file or rebuttal? 20 MR. BEYER: 21 MARK GOODWIN: It's pre-file. 22 What was the number on it? MS. PEASLEE: 23 MR. BEYER: 3-F. 24 MARK GOODWIN: Yes. 25 MR. BEYER: Okay. So from the looks of this

map, you've got structure 3,006-634 and 3,006-635 and 1 access roads -- no access road in between them, so 2 3 that space in between them will you have to cut any 4 of that vegetation to construct the line or will 5 they -- they just leave the -- anything shorter than 6 35 feet? 7 GERRY MIRABILE: So this is an area of 8 taller structures to allow full height vegetation. 9 MR. BEYER: Right. GERRY MIRABILE: And so I don't believe we 10 11 would need to cut anything between those two 12 structures. MR. BEYER: 13 Thank you. Mr. Goodwin, you spent a fair amount of time discussing MPRP and the 14 15 permitting of that project and the construction of 16 that project. Was there any new right of way 17 associated with that project? 18 MARK GOODWIN: There was on Segment 15, I 19 believe that was in Litchfield, and it wasn't -- it wasn't a really large section of right of way. I 20 think several miles. 21 22 MR. BEYER: Okav. 23 MARK GOODWIN: Litchfield and West Gardiner. 24 MR. BEYER: Okay. 25 MARK GOODWIN: Possibly a little bit of

1 Monmouth, but I'm not entirely sure. 2 But certainly not 53 miles? MR. BEYER: 3 MARK GOODWIN: No, sir. 4 MR. BEYER: Thank you. One last question 5 for Mr. Dickinson. Just so I'm clear, so if the 6 project were to increase for some -- whatever reason, 7 the cost of the project was to increase, that's not passed on to ratepayers either in Maine or in 8 Massachusetts; is that correct? 9 THORN DICKINSON: That's correct. 10 11 MR. BEYER: Okay. Thank you. That's all I 12 have. 13 MR. REID: I've got a question, I think probably best for Mr. Dickinson. In response to 14 15 Mr. Mahoney's questions, he talked a little bit about 16 the idea of carrying costs and I think you mentioned 17 operations and maintenance and property taxes and 18 depreciation. Could you break those three factors 19 out and compare how those are affected by burying the 20 line as opposed to your current proposal? 21 THORN DICKINSON: Sure. The -- let me start 22 by saying I think a carrying charge is a quick and 23 easy way to try to move from a capital cost to an annual cost related to a project and the philosophy 24 25 of a percentage as you look across the whole

1 portfolio of projects and you say on average what 2 percent on an annual basis is my O&M of capital 3 costs, what percentage is administrative and general 4 of my capital cost, depression and property taxes and so forth. So you -- it's a quick way of saying on 5 6 average for every dollar of capital I spend there is 7 a certain percentage that I can assume I can scale for O&M. Now, the -- to do an actual -- we didn't 8 use a fixed charge rate in order to build out our 9 financial model for bidding into the Massachusetts 10 11 EDC, we did what you would say more like a bottom up 12 kind of approach where we actually looked at what we thought the O&M expenses were going to be, what we 13 14 thought the property taxes were going to be, those 15 kind of things went into our bid. But when we're looking at changes in capital like we are here, 16 again, a shortcut I would call it way or a simple 17 18 back of the envelope way is to -- to recognize that 19 many things move on a linear basis with capital and so I would generally expect that O&M would increase 20 21 by capital, property taxes would increase by -- by 22 capital, A&G -- administration and general costs definitely would because that's an allocation across 23 all of the businesses and then all of your return and 24 25 depreciation would also scale. I think maybe the one

area might be O&M that you might want to really dive 1 into a little bit more and study that a little bit 2 and I think all of the other factors are linear. 3 Obviously there is a significant 4 MR. REID: up front cost associated with burying and maybe some 5 6 additional time in construction, are there benefits 7 to you as the owner and operator for the line once 8 you get past those from having a buried line as 9 opposed to above ground? 10 THORN DICKINSON: You know, I -- my instinct 11 is to allow the engineers that really did the 12 analysis here in rebuttal testimony to speak more to it, but, again, one of the -- one of the issues that 13 14 when we looked at a longer amount of undergrounding 15 for rebuttal testimony was the ability to reclose when there is a fault. If you have a -- an 16 overhead -- an overhead line and you have a fault you 17 18 have a very high probability of knowing where that fault is and from that you can make a determination 19 on how guickly you can reclose that line and make 20 21 sure it's back into operation. With an underground 22 line, particularly a segmented line it's very -- it's 23 much more difficult to understand whether it was in overhead or underground portion and then on what 24 25 side. So I -- off the top of my head, I'm not coming

up with a lot of benefits of undergrounding. 1 2 Obviously you do eliminate one probability, which is, 3 you know, lightening strikes that could happen 4 directly to an overhead line, but we have protection 5 for that. But I think without trying to punt too much to the other panel, I think it would be good for 6 7 them to answer the question. 8 MR. REID: Thank you. 9 MR. STEBBINs: I do have a question and this may be for the engineers. What is the typical impact 10 11 area associated with just a pole placement? 12 MARK GOODWIN: It depends on the -- on the structure type and it depends on the type of impact 13 14 you're asking about. For permanent fill impacts it's 15 typically 40 square feet. For the larger structures it can go up to 180 square feet. And then the 16 temporary impact areas, I don't know the numbers off 17 18 the top of my head, but, you know, you're probably 19 for the -- for the monopole HVDC structures you're talking on the order of a few thousand square feet 20 21 and that, again, that can vary depending on the type 22 of structure that's used. 23 Okay. I guess my follow-up MR. STEBBINS: question would be depending on the type of structure 24

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that you put in, were those additional impacts

1 considered during your total amount of wetland 2 impact, which I think was 4.1 acres off the top of my 3 head that you guys mentioned earlier today? MARK GOODWIN: 4 The -- so the permanent wetland fill for transmission line structures on the 5 6 project is .15 acres. The remainder of that is 7 associated with substation development. So the 8 overall footprint for permanent fill for permanent fill for transmission line structures is incredibly 9 You know, and to answer your question, you 10 low. 11 know, the -- you know, the structures are almost 100 12 feet tall. They span close to 1,000 feet, maybe over a thousand feet in places. Those span lengths 13 minimize the number of structures that are placed in 14 15 the ground and allow us to go over wetlands rather than be in them to the extent that we can do that. 16 17 MR. STEBBINS: Okay. Thank you. You're welcome. 18 MARK GOODWIN: Peggy. I mean, Ms. Bensinger. 19 MS. MILLER: 20 MS. BENSINGER: I have a couple questions. 21 If you were to underground a portion of the line, you 22 said you would do vegetation management for a 75 foot 23 wide strip? (Indicating yes.) 24 GERRY MIRABILE: 25 MS. BENSINGER: And what would that

vegetation management look like? You talked about 1 2 the roots being the concern. What kind of vegetation 3 would be allowed to grow over an underground line? GERRY MIRABILE: I'll let the engineers 4 5 correct me if this is not fully accurate, but my 6 understanding is it would be very much like we have 7 in a typical scrub/shrub habitat, not large trees, 8 not, you know, deeply routed trees with a huge spread but scrub/shrub habitat with limited localized roots. 9 10 MS. BENSINGER: And where the ground --11 where you are doing the horizontal directional drill 12 under the Kennebec, how far away from the banks of the Kennebec is the point on each side where the line 13 14 goes underground? 15 There are different GERRY MIRABILE: Yup. ways of measuring that because there is a section --16 well, there are termination stations where it 17 18 transitions from overhead to underground and then there is a stretch of trenched rather than horizontal 19 20 directional drill between the termination station and where it transitions to horizontal directional drill. 21 2.2 I don't have those exact numbers. I -- it's in the -- I think it's in the few hundred feet between 23 24 the termination station and where it transitions to

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horizontal directional drill, in part because of the

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1 drilling angle, you know, you have to get to a 2 certain depth before you go to drilling. 3 MS. BENSINGER: So you think it's a few hundred feet from the edge of the river to the point 4 5 where it goes into the trench? 6 GERRY MIRABILE: No. So I'm going to say 7 1,140 or 1,160 feet of undisturbed tree growth on the 8 west side and 1,450 undisturbed tree growth on the east side. Beyond each of those points there will be 9 a segment where it would be maintained in scrub/shrub 10 11 because it would be trenched rather than drilled. 12 Does that answer the question? 13 MS. BENSINGER: Mmm Hmm. 14 MS. MILLER: Any other questions? Okay. 15 We'll go ahead briefly for redirect. 16 I just have two quick MR. MANAHAN: questions. The first one is for Mr. Goodwin. 17 We 18 heard this morning, Mr. Goodwin, from Mr. Publicover 19 and I think some other questions having to do with pine marten and fragmentation issues and some -- in 20 21 those questions some concerns were raised about the 22 adequacy of the compensation plan. My question for 23 you is what did the Department of Inland Fisheries and Wildlife say with respect to fragmentation issues 24 25 and what concerns did they raise about that with --

1 with respect to the compensation plan proposed? 2 MARK GOODWIN: Obviously there was 3 discussion about significant vernal pool habitat, which we have adequately addressed through siting 4 5 minimization measures and the compensation. Beyond 6 that, the discussion was limited to deer wintering 7 areas, specifically the Upper Kennebec deer wintering 8 area, you know, in terms of that habitat type 9 requiring compensation. 10 MR. MANAHAN: So they didn't raise 11 fragmentation as a concern? 12 MARK GOODWIN: Generally speaking, habitat fragmentation wasn't a big concern for IF&W other 13 14 than for generally mostly deer wintering area. 15 MR. MANAHAN: Okay. The next question is for Ms. Johnston and that is a similar question with 16 regard to Mr. Reardon's questions having to do with 17 18 cold water fisheries and brook trout. Did IF&W 19 express concern with the compensation plan? Were they ultimately satisfied with the compensation plan 20 and how it addressed cold water fisheries? 21 22 LAUREN JOHNSTON: They were ultimately 23 satisfied with the compensation plan and the proposed expanded buffers that -- that we provided in our most 24 25 recent compensation plan in January of 2019.

MR. MANAHAN: Thank you. No further 1 2 questions. 3 MS. MILLER: So we'll go forward with the schedule. What we'll do now is have Witness Panel 4 5 Number 2 come on up. So we'll have a five minute transition. 6 7 (Break.) 8 MS. MILLER: Okay. I'm going to go ahead and call this to order. So right now we're going to 9 10 be listening to the direct testimony from Witness 11 Panel 2 for the Applicant and they ended a half an 12 hour early on their Witness Panel 1 and requested that extra half hour be for their Witness Panel 2, so 13 14 they have 60 minutes. 15 MS. BENSINGER: If you need it. BRIAN BERUBE: Good afternoon. My name is 16 17 Brian Berube and I am the manager of real estate 18 services for Avangrid testifying on behalf of Central 19 Maine Power for the New England Clean Energy Connect Project. I am here to present my testimony on the 20 21 three alternatives that CMP analyzed when designing 22 the project. The three routes are the preferred 23 project route, Alternative 1 and Alternative 2. Alternative 1 will have a greater 24 25 environmental impact and is not a practicable

1 alternative because it requires a new Appalachian Trail crossing whereas the preferred crosses the ATL 2 3 location with existing transmission line assets. It requires acquisition of conservation lands whereas 4 5 the preferred route does not. It requires 93 miles 6 of new corridor, whereas the preferred route requires 7 only about 54. It requires more landowner 8 acquisitions. For these reasons, Alternative 1 would 9 have a greater environmental impact and is not 10 practicably -- not a practicable alternative to the 11 preferred project route.

Alternative 2 would also have a greater 12 impact -- greater environmental impact. It is not a 13 14 practicable alternative because it requires a new 15 Appalachian Trail crossing whereas the preferred route crosses the ATL location with existing 16 17 transmission line assets. It requires the 18 acquisition of land in the Bigelow Preserve and from the Penobscot Indian Nation. It contains more 19 20 wetland and stream crossings and it requires more 21 landowner acquisitions. For these reasons, 22 Alternative 2 would have a greater environmental 23 impact and is not a practicable alternative to the preferred project group. 24

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Based on the results of the alternatives

analysis it is my opinion that there are no
alternatives that would lessen the project's impact
on the environment or the risks it would engender to
the public health or safety without unreasonably
increasing its costs, a less environmentally damaging
practicable alternative for the project which meets
the project purpose not does exist.

Thank you for your consideration.

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Hello. My name is Amy Segal. 9 AMY SEGAL: I'm a Maine licensed landscape architect with 10 11 Terrance J. DeWan Associates located in Yarmouth, 12 Maine. I have worked for the firm for about 26 years with a majority of my work focused on Visual Impact 13 Assessments or VIA for mostly in Maine. Our firm 14 15 works with conservation organizations, energy developers, utility companies and state and federal 16 17 agencies to evaluate potential visual impacts on a 18 range of proposed projects. Our firm is one of the three firms and the only one in Maine that is 19 pre-qualified to perform pier reviews of visual 20 21 assessments for the Maine DEP. Over the past four decades our firm has worked on over 100 VIAs 22 throughout the northeast, on-shore and off-shore 23 wind, transmission lines, aquaculture facilities, 24 25 bridges, tar plants, landfills and so on. Our

1 evaluations include field work, preparing

2 photosimulation and viewshed mapping, visual impact 3 analysis, recommending mitigation measures and 4 offering testimony before agencies such as yourself.

We have worked for CMP before specifically 5 on the Maine Power Reliability Program or MPRP, as 6 7 was said before, that was reviewed and approved by DEP in 2010. I, with our firm's project manager for 8 9 the New England Clean Energy Connect Project, am 10 primarily responsible for research and field work and 11 overseeing the production of mapping and photosimulation and the prime author of the 12 assessment. Our presentation today will summarize 13 14 the criteria methodology used in preparing the VIA 15 for the project and concludes a review of the proposed mitigation measures as illustrated through 16 photosimulation. 17

18 This summary will support our conclusion that the project will not unreasonably interfere with 19 20 existing scenic and aesthetic uses and does not 21 diminish the public enjoyment appreciation of the 22 quality of the scenic resources and any potential 23 impacts have been minimized and also that the activity will not have an unreasonable impact on the 24 25 visual quality of the protected natural resources as

1 viewed from scenic resource.

2	Mr. DeWan will now introduce himself and
3	review the criteria methodology reviewed in the VIA.
4	TERRY DEWAN: Thank you, Amy. My name is
5	Terry DeWan. I am a licensed Landscape Architect in
б	the State of Maine and I have 40 years of experience
7	working with visual impact assessment throughout the
8	State of Maine. I've appeared before this board on
9	several occasions over the past years and we're going
10	to be talking today about the methodology that we've
11	used to reach our conclusions. For the last
12	year-and-a-half I've been working with Amy and CMP to
13	satisfy some of the comments that we heard during
14	some of the peer review process to make sure that it
15	met the criteria of the state. We prepared the VIA
16	for the New England Clean Energy Connect using
17	standard Visual Impact Assessment methodologies that
18	we have used over the years and we've refined our
19	methodology as we've gone along following the
20	standards described in the Natural Resources
21	Protection Act, Chapter 315 regulations as well as
22	those in the Site Law Chapter 375, the regulations
23	for scenic character.
24	Under NRPA, the DEP is to consider whether

25 or not an activity will not unreasonably interfere

1 with existing scenic aesthetic recreational or 2 navigational uses. So what is unreasonable adverse 3 visual impact? That seems to be the crux of the issue here before us today. Every time we make a 4 5 change to the landscape no matter what we do there is 6 an impact. Every time it can be seen, well, that can 7 be considered to be seen as a visual impact because 8 you can see it. It's visually apparent. But if the change is perceived to have an objectionable level of 9 contrast, and by contrast we mean contrast in color, 10 11 form, line, character, scale and so forth and may be 12 considered to be adverse, but then the real question is where is the line that makes it unreasonable? 13 So 14 Chapter 315 supplies us an answer. They defined an 15 unreasonable adverse visual impact as, quote, those that are expected to unreasonably interfere with the 16 general public's visual enjoyment and appreciation of 17 18 a scenic resource. And, of course, I'll define what 19 a scenic resource is because it is already defined under statute. Or it impacts -- or impacts that are 20 21 unreasonably -- or otherwise unreasonably impair the 22 character or quality of such a place. Chapter 315 23 requires that an applicant demonstrate that the proposed design does not unreasonably interfere with 24 25 the existing scenic and aesthetic uses and thereby

diminishes the public enjoyment and appreciation of the qualities of scenic resources and that any potential impacts have been minimized. More broadly under 375 the applicant must demonstrate that the project will not have an unreasonable adverse effect on the scenic character of the surrounding area.

7 We've talked a bit today about the effects 8 on outstanding river segments and we did consider the 9 criteria applicable to the crossing of the firebelt 10 and river segments, which Amy will discuss in a 11 moment. We also, as you know, will be talking 12 tomorrow about the effects on the LUPC, P-RR 13 subdistrict.

14 So we followed DEP's methodology as we have 15 done over the years and these are -- and I won't read all of those, but these are the points of the 16 methodology that we've looked at in developing our 17 18 VIA. We worked very closely with Mr. Beyer and others at DEP to determine the extent of the study 19 area and we have a slide that talks a little bit more 20 21 about that in a moment. We identified approximately 22 360 scenic resources as defined by Chapter 315 23 throughout the entire course of the project area. We provided computerized viewshed analyses and you can 24 25 see some examples of that in a moment. Our field

staff spent over 90 days in the field looking at it 1 2 from all different sorts of aspects and photographing Back in the office, we did extensive assessment 3 it. of project visibility to determine where the project 4 would be visible, how much it would be visible and 5 6 then the degree of contrast that it may have with the 7 surrounding landscape. We then prepared 53 photosimulations, which some of which you can see in 8 9 the back of the room here, to show the extent of the 10 visibility within the study area. We also then wrote 11 the Visual Impact Assessment and you see the volumes 12 of it right here. And perhaps more importantly, we worked very closely with Central Maine Power Company 13 14 throughout the process and their engineers to 15 recommend and evaluate mitigation measures where we felt it would be necessary. 16

You've heard us talk about the five areas 17 18 that the project was divided into, the five segments. Segment 1 is the 53.5 miles that seems to be the 19 20 focus of attention here. This is the new corridor 21 from Canada to The Forks. This is a corridor, as you 22 know, will be 150 feet in width. The transmission 23 line will be supported by self-weathering steel monopoles and not the gray lattice work structures 24 25 that you see very often pictured in the media. On

1 occasion, a single monopole will also be joined by another pole side by side at an angle point. 2 These are dark brown in color so that's what we mean by 3 self-weathering steel. Segment 2 is a 22 mile 4 5 segment where it starts the co-located segment from 6 The Forks down to Wyman Hydro. This is where the --7 the project will be -- the corridor width increased 8 in width by 75 feet. Segment 3 is 70 miles of 9 co-located corridor down to the Larrabee Station in Lewiston. Segment 4 is the rebuilt section bringing 10 11 the -- bringing the line to the Thicket Road 12 Substation in Pownal and 16 miles. And lastly, is Segment 5 which connects the Coopers Mills Substation 13 in Windsor to the Maine Yankee Substation. 14

15 So what constitutes the study area? You know, how do you decide, you know, where to extend 16 17 your viewshed analyses and studies to? In this 18 particular case, we went three miles on either side of the center line of the corridor generally. 19 However, because of the nature of the topography, the 20 fact that there are a considerable amount of hills 21 22 and mountains surrounding it, we decided to go out 5 23 miles on either side as can you see in the next slide. 24 There we go.

25

Another important concept to consider is

1 that of distance zones and, again, we'll reference 2 the Visual Impact Assessment methodology that's contained in Chapter 315, but it's an important 3 consideration in determining the visibility and 4 potential visual impact in looking at a VIA. 5 This is 6 an example of a project in Anson. This is a project 7 showing that the foreground, which is a half a mile 8 from the observer. Details in this situation are 9 pretty apparent. You can count the number of lines 10 in the conductors. You can see the texture on the --11 on the structures and so forth.

The next area in the distance zone continuum 12 is the mid-ground and that goes from the edge of the 13 foreground roughly a half a mile out to 3 miles. 14 And 15 this particular illustration, which is on Route 201 looking towards Coburn Mountain, the project was 16 located about 2 miles from the observer. 17 This -- and 18 this -- in the mid-ground patterns and lines are most noticeable in the landscape. And lastly, the 19 background. Again, the whole continuum of distance 20 21 zones is anything beyond 3 miles. And this particular location, which we're on top of Bald 22 23 Mountain on the Appalachian Trail. If you look very carefully you can see both the existing and the 24 25 proposed corridor as Amy is pointing out. It's

1 sometimes very difficult to see and that very often
2 it's almost impossible to see once you get to that
3 level of viewing distance.

So finally, we've used the term scenic 4 resources and these, as I said, are defined by 5 6 Chapter 15 as, quote, public natural resources and 7 public lands usually visited by the general public in 8 part for the purpose of enjoying their visual quality. We've identified, as I said, over 360 9 places that are considered to be scenic resources and 10 11 we have summarized them on 22 pages in Attachment F 12 of our testimony.

Just to go through some of them, National 13 14 Natural Landmarks are the first category of scenic resources and, again, I won't go through all of the 15 ones we've identified, but such as Number 5 Bog and a 16 Jack pine stand. We have found that there are some 17 18 state and national wildlife refuges, such as the Fahi Pond in Embden; there are of course state and 19 federally designated trails such as the Appalachian 20 21 Trail; properties on or are eligible for inclusion in 22 the National Register of Historic Places such as the 23 Arnold Trail; national and state parks such as the Androscoggin Riverlands State Park; municipal parks 24 25 and open spaces such as the Pleasant Ridge swim area

on Wyman Lake and back to the dam; publicly owned 1 2 land, visited in part for the use, observation and 3 enjoyment and appreciation of natural or manmade visual qualities and for these we use examples like 4 5 the state land up on top of Coburn Mountain or 6 certainly the Route 201 Scenic Byway; and lastly, 7 public resources in general such as Moxie Pond or the 8 Kennebec River and, as I said, we have a very complete listing of those resources that we've 9 evaluated. 10

11 So that's an overview or methodology of what 12 we've been through to develop the VIA and how we've been guided by the visual assessment procedures 13 outlined in Chapter 315. I'll now turn it back over 14 15 to Amy who will discuss how we apply this methodology and show you a series of photosimulation that have 16 17 been taken to mitigate potential adverse individual 18 impact to scenic resources.

AMY SEGAL: Okay. So the next couple of slides show how we applied the methodology. This first slide is of a viewshed analysis and excerpt. We do have the project here, the green line coming through here in Segment 1. And these black dashed lines represent the 3 and 5 mile study area extending out from there. The areas in purple show where there

is theoretical project visibility. And of course 1 based on our research and that viewshed analysis that 2 3 we're using as a tool we develop our field plan and then document existing conditions from both locations 4 that are justified according to professional 5 6 standards. As Terry mentioned, we completed over 90 7 personal days of field work. We take those 8 photographs, we bring them back to our office, we use our model that was supplied by the project engineers 9 and we merge them. 10

In this diagram -- oops. In this diagram you can see that we have this green line representing the foreground trees, the red line represents the project area that is located behind those trees, therefore, these trees will screen the project from this viewpoint. So this is the type of analysis we did for the resources.

18 We prepared, as Terry mentioned, over 50 19 photosimulations for the project. Those photo 20 simulations showed, you know, we intentionally did a 21 diversity of viewing distances in the foreground, 22 mid-ground and background, also looked at viewpoint 23 types such as ponds, mountains, road crossings and then looked at the surrounding land use and 24 25 documented that. Based on those sort of simulations

we used the Appendix A from Chapter 315 to evaluate 1 the visual impacts for each one of these 2 3 photosimulations. This is an excerpt. Then we also did this again for the leaf-off or snow cover 4 photosimulation that were done for 10 different 5 6 locations. As Terry mentioned, we then -- this is a 7 listing of the visual mitigation recommendations that 8 the project is involving. So you've already heard Thorn -- Mr. Dickinson speak about the overall 9 project siting. You've heard about the HDD under the 10 11 Kennebec River. The rest of these we will illustrate 12 with our photosimulations.

All right. So we have this next part of the 13 14 show here is we have the groups of photosimulations. 15 We have, you know, a collection from Segments 1 and 2 including the Appalachian Trail; we have Route 201, 16 outstanding river segments; and then at the end we 17 18 have road crossings from Segments 3, 4 and 5. So I think we'll have time to get through all of it, so 19 I'll just do a time check when we get there. 20

Okay. So this first diagram is a blow-up of that project map from before. We will be looking at photosimulations from Beattie Pond here, Rock Pond, Parlin Pond, Coburn Mountain, Cold Stream -- yeah, Cold Stream and Moxie Stream and Moxie Pond.

1 Okay. The first one, Beattie Pond. So the -- here is the Canadian border. 2 The project is 3 the green line moving through here. Beattie Pond on the border between Beattie and Lowelltown Township. 4 Beattie Pond is a 25 acre waterbody. It's a remote 5 6 pond or a class -- management Class 6. It therefore 7 has a half mile buffer around it. Again, this is the project going through here. This pond there. 8 There is a camp here on the southern area on the shoreline. 9 And there is an access -- gated access road that 10 11 comes in through here.

12 The viewpoint that we used is from the northeast corner of the pond up here because -- and 13 we chose that location because it would have the 14 15 greatest amount of potential visibility. This is a panoramic view looking in that direction. And here 16 is a view focused in on the project. This is 17 18 existing conditions. This is the initial 19 photosimulation that was submitted in September of 20 2017. You can see the double poled angle structure that would be visible above the tree line here and 21 22 what they call the Smart Mountain would be back behind there. So in working with the engineers and 23 recognizing the visibility of those structures, we 24 25 went back and worked with them in January 2019,

submitted this revision, which the tip of the
 structure is just barely visible over the tree tops
 there. The structure was reduced in height of about
 39 feet.

Moving on to Rock Pond. This is about a 145 5 6 acre pond in T5 R6. Again, the project is here in 7 the green line. There is the pond. We, again, found 8 the place on the pond that would have the most 9 potential project visibility. Their is based on viewshed analysis and also based on our field work. 10 11 So we selected this -- selected this location in the 12 southeastern corner. The project towards the north. This is a panoramic view looking to the northwest and 13 to the north towards Three Slide Mountain, 14 15 Tumbledown, Greenlaw and Number 5 and 6 Mountains.

Just -- I'm making one more comment about 16 Rock Pond. So Rock Pond is assigned a significant 17 18 rating for its scenic qualities. And just to back up a little bit with that there is over 1,500 grade 19 ponds in the unorganized territory in Maine and the 20 21 Maine Wildlands Lake Assessment has assigned scenic 22 resource quality ratings as either a significant or outstanding for 280 of those grade ponds. So, again, 23 Rock Pond is rated significant for scenic resources. 24 25 Obviously it was, you know, a scenic resource we

1 needed to look at.

2 The pond has a carry-in boat launch on the 3 north end, a handful of campsites on the north end and two camps on the eastern side of the pond. 4 This 5 view, again, is from the eastern corner looking 6 towards the northwest. Here is a photosimulation 7 depicting the full height vegetation around Gold 8 Brook up towards the notch in here and through here. And as you heard earlier from the first panel in 9 10 working with IF&W the monopoles on either side of 11 Gold Brook needed to be taller to accommodate a full 12 height vegetation. Upon reviewing this change with the team, we recommended the use of tapered 13 14 vegetation management techniques for the visible 15 corridor remaining in the notch. So this was the portion up in through here. Because as your eye 16 travels down the notch and over even though it's kind 17 18 of lumpy, we felt that that would be noticeable. So 19 the technique minimizes the visual impact when viewed 20 So I'm going to kind of pan back and from Rock Pond. 21 forth here a couple of times so you can see the 22 difference. So this photosimulation reflects the 23 tapered vegetation management within that corridor. 24 All right. Now, we're going to show you a 25 cross-section of this tapered vegetation management

to understand this a little bit more. So -- so you have this monopole structure here and you have trees and vegetation that remain that are approximately 15 feet in height. As you move out toward the edge of the corridor trees will get taller, approximately 35 feet in height.

Okay. So now we're going to look towards 7 8 the north. There is existing conditions. This is 9 proposed conditions. The corridor clearing itself 10 won't be visible. The change in vegetation will be slightly visible. 11 The structures as we've talked 12 about numerous times are going to be the self-weathering steel, so they are dark brown. 13 They will blend with the wooded backdrop. 14 This is a location where we also recommended an additional set 15 of mitigation which was to us use non-secular 16 conductors along this section so that the conductors 17 18 connecting between the connectors would be less visible. And to describe what non-secular conductors 19 are they're basically pretreated in a way that 20 reduces the potential reflectivity from the sunlight 21 and we felt that in this instance where the viewer is 22 23 south of the project and looking to the north that sunlight coming up over head would reflect off the 24 25 conductors, so we felt that this was a good location

1 to recommend that.

2 Moving on to Coburn Mountain in Upper Okay. 3 Enchanted Township. The green rectangle there is the portion that's owned by the state. This is the ridge 4 of Coburn Mountain right through -- going through 5 here. The project is the green line here. Route 201 6 7 is the purpose line. Also, I just want to reference quickly too this graphic that was our rebuttal 8 graphic that accompanies our rebuttal testimony. 9 We can answer questions to that a little bit later, but 10 11 that describes in more detail what portion of that 12 green line would actually be visible.

Okay. So, again, this the viewpoint from 13 14 the summit of Coburn Mountain. This is a photograph 15 looking southwest towards Johnson Mountain and the valley here with the logging roads and clearcuts and 16 17 strip cuts and this grade and the management through 18 there. Here is the structure and solar panels at the 19 top. This photograph is taken from the observation tower, which is approximately 20 feet above grade 20 looking -- if you kind of look down on the structures 21 22 here. In this photograph to the lower right is looking off to the northwest towards Grace Pond. 23 So focusing in on the view towards the most 24 25 visible portion of the project from the summit of

1 Coburn Mountain. This is the existing conditions view looking towards the east. The closest portion 2 3 of the project right here we've got one mile away. The furthest portion of the project is back in 4 through here. And this area is, you know, into the 5 5 6 miles and beyond so it's really in the background for 7 viewing distance and is not very noticeable. And now we're just sort of panning a little bit more to the 8 south. This is existing conditions. You can see the 9 10 patchwork of the commercial forest operations here 11 and logging roads. This is the initial 12 photosimulation that we submitted. Obviously the corridor is 150 foot wide and would be more 13 noticeable with snow cover. Structures are minimally 14 15 visible, again, because of their dark brown color. And working with CMP and our engineers we looked at 16 the possibility of doing tapered vegetation 17 18 management here as well and this would be a 2.2 mile 19 stretch of tapered vegetation management from that closest location, which is about a mile away to this 20 which is just about 3 miles away. So we felt this 21 22 minimized visibility of the corridor guite a bit. It 23 makes the corridor look very similar to the existing logging roads that are cutting through there. 24 25 All right. Moving on to Parlin Pond in

Parlin Pond Township. This pond is rated significant 1 2 for its scenic resources. It's approximately a 580 3 acre pond. You can see Route 201 along the west side 4 of it. Okay. Oh, yeah, just to point out, so the 5 viewpoint on that northern portion of the pond 6 looking to the south you'll see towards Coburn the 7 cabins and sort of development on the west side 8 primarily are looking -- are oriented towards the east towards Parlin Mountain. 9

10 Okav. So this is a view from the north 11 looking towards Coburn Mountain. This is a winter 12 view and that's the project here in this area there. It's approximately 2.7 miles away from that -- from 13 our viewpoint location. And the main mitigation 14 15 strategies utilized here was to place -- take care and place that line in a location where, you know, 16 the line will actually mimic the profile of the 17 18 mountain and it wouldn't be significantly visible. In fact, there is just a small area of potential 19 corridor clearing that you would see. The structures 20 generally will blend and at this distance the 21 22 structure would not be very distinguishable. Here is a summer photosimulation in a similar location. 23 Again, you can somewhat see a change in the 24 25 vegetation. The structures up there is about 2.7

1 miles away from the viewers.

2 And now we're going to move towards Cold 3 Stream, Cold Stream forest parcel. Cold Stream is a scenic river as designated in the Maine River Study. 4 5 Primarily one of the reasons why it's designated as a 6 scenic river is because of Cold Stream Falls, which 7 is 2.1 miles upstream from this location. The 8 project will not be visible from Cold Stream Falls. 9 All right. Let me go back here one more time. So here is the project here in the bright green. 10 Those 11 white dots represent the proposed structures. This 12 is Capital Road coming off Route 201 here. Capital Road through here. This is the previous alignment of 13 Capital Road there. The Cold Stream forest parcels 14 15 are sort of on either side here. There is a gap where the roads and the project will be located. 16 The 17 orange dot represent ITS 87. This is a photograph from the ITS 87 bridge looking back towards Capital 18 19 Road, so the logging road there and the culvert. You know, Capital Road is a significant logging road, a 20 21 two lane logging road.

This is a photosimulation showing the proposed change with the project. Obviously the most significant visual change will be the corridor or the clearing for the corridor. So the conductors

1 themselves will be overhead and somewhat filtered through the branches of the vegetation between the 2 viewer and the corridor. The structures are set back 3 pretty significantly from here, so you can't 4 necessarily see them in the same viewscape. This is 5 a one lane, you know, this is the -- the ITS bridge 6 7 is a narrow bridge. It's sort of a momentary view 8 that you would have as you were crossing through 9 here. I'll also just point out the rip rap on either 10 side kind of shows the old alignment for Capital 11 Road.

I'll move on to Moxie Stream. 12 This Okay. is also a designated scenic river in the Maine River 13 14 Again, primarily because of the Moxie Falls, Study. 15 which is located 1.7 miles downstream of the project. The project will not be visible from Moxie Falls. 16 You can see that -- here is the project here and 17 18 Moxie Stream comes through there. The viewpoint is 19 locking towards the west.

Okay. So this viewpoint location is near where the Fish Pond Road is. There used to be a bridge over the Moxie Stream that's no longer there. There is just a little bit of rip rap on both sides of the road now, but you can sort of drive right down to this location and view it. This -- the way the

project has been sited is crossing Moxie Stream. 1 It's in sort of a bend in the river. As you can see, 2 3 you can't really see in that bend too well so this is kind of as you're moving through here it's sited well 4 to minimize views from say a kayaker or somebody 5 6 running it in the spring. This is the proposed 7 change. Obviously, again, the biggest change would 8 be the clearing. There will be the riparian -preserve riparian buffer vegetation along here. 9 There is also in this location will be a supplemental 10 11 buffer planting in here. We're showing the conductors here. You can see the shield wires with 12 the marker balls. Right now, we're not definitely --13 we haven't definitely heard whether or not the marker 14 15 balls will be required. I know the Army Corps is still looking at it. It's our understanding the FAA 16 17 won't require it, but we're still in the process, so 18 to be conservative we've shown those marker balls. 19 Okay. Moving on to Moxie Pond. So this is obviously a much bigger waterbody. It's over 2,200 20 It's rated as outstanding for its scenic 21 acres. 22 resources. It also has guite a bit of development on 23 the western shoreline and there is a road --Troutdale Road runs the length of the western 24 25 frontage. There is an existing transmission line.

1 This is the beginning of the co-located section. So the existing transmission line runs along the entire 2 length of the 7 miles of the pond and the proposal 3 would widen it by 75 feet on the western side. 4 So the vegetation between the existing transmission 5 6 lines and the pond and the existing transmission 7 lines and the camps, again, won't change.

8 So we -- we took photographs from Okay. 9 numerous locations on the pond. We did 10 photosimulations from the north end near the boat 11 launch and we chose this one to show today in 12 particular because the existing corridor is the most visible one in this location, so we felt the proposed 13 corridor would be the most visible in this location. 14 It's kind of a worst case for Moxie Pond. This was 15 the initial photosimulation that we submitted in 16 September of 2017. I'll just to go back and forth 17 18 here. So you can see there are some structures on They're self-weathering so they 19 either side. generally blend with the backdrop, but you have a 20 21 longer span of conductors that were visible. So this 22 is another instance where we worked with the 23 engineers and said, you know, let's kind of figure out a way to kind of reduce the height of the 24 25 structure, reduce the conductors and reduce the

amount that you would see from here. So on average,
 where Mr. Mirabile was saying that the average
 structures are 94 feet and a section along Moxie Pond
 because they reduced the structures, they reduced the
 ruling spans the average height is closer to 70 feet.

Now, I'm going to move on to the 6 Okav. 7 Appalachian Trail. Okay. So -- okay. Here is the 8 project. It's a co-located section with the blue line moving through here. 9 This is Moxie Pond. This 10 is the Appalachian Trail. It's the red line going 11 through here. This is our 5 mile limit on either 12 side, so there is approximately 14 miles of the Appalachian Trail within that 5 mile span on either 13 This is Pleasant Pond Mountain summit here. 14 side. This is Bald Mountain summit. And this is the area 15 where the AT crosses the existing transition corridor 16 three times in and around Troutdale Road. 17

18 Okav. This aerial diagram shows the AT as a white line and moving down from Pleasant Pond 19 20 Mountain down towards Joe's Hole, the southern end of 21 Moxie Pond, and where it crosses the project. So 22 this is the existing corridor, which is kind of a 23 lighter blue and then the expanded corridor on the western side of that. So you can see these points 24 25 here existing, the first time you cross it here and

1 then down the Troutdale Road. So the distance -- the 2 hiking time if you were to go from Pleasant Pond 3 Mountain down to this crossing it's around three, three-and-a-half hours or so and then takes, you 4 5 know, a few minutes to get down to the road and then 6 you continue on and we'll get the next aerial when we 7 get there. I just want to give people a sense of, 8 you know, hiking time to get down there.

9 So this is Pleasant Pond Mountain. Okay. This is a panoramic view looking towards the project 10 Mosquito Mountain in the center with Moxie 11 area. 12 Pond going the length there. Focusing on the area that's closest to the project. 13 This is existing 14 conditions. This is proposed. It's very hard to see 15 the difference. From this distance at approximately 3 miles it's very hard to perceive the project. You 16 17 won't see the clearing per se, but you may see tips 18 of structures. So this is a blowup, four times 19 zoomed of the area right there, so you can see double pole angled structure that would be visible --20 21 slightly visible at this distance of over 3 miles. 22 So coming down from the summit of Pleasant 23 Pond Mountain, again, hiking about three-and-a-half hours or so you get down to this first crossing of 24 25 the existing corridor, so this first view is looking

1 to the east. So looking in both directions here, 2 this is looking back towards Joe's Hole and the 3 existing conditions there. And you hike a few minutes, maybe takes 5, 10 minutes to get down to 4 Troutdale Road. And this is the section where the 5 6 Appalachian Trail is co-located with Troutdale Road. 7 It takes about, I'd say about 60 seconds or so or no it's about -- well, no, you can see it now for about 8 50 seconds or so, you know, I'll say a minute as 9 you're walking down through here, the expanded 10 11 corridor would extend that visibility time probably 12 about 16 seconds. So you're on Troutdale Road, you're taking northbound underneath the corridor, 13 underneath the existing 150 foot and then the 14 expanded 75. We also did it in the winter. This 15 photosimulation shows the proposed roadside plantings 16 that were -- that we've suggested. We show them in 17 18 photosimulation just to give you a sense that, you 19 know, it's not going to block the view of the 20 structures, but it will minimize the view of the 21 clearing. 22 So you were -- we were just down here Okav. 23 down in Joe's Hole, we've -- the northbound hiker

24 will then continue on Troutdale Road, will cross over 25 Baker Stream and continue on until they get to this

next crossing here. So the whole hike from that 1 2 first time you encounter the existing transmission line to this third encounter would be about a 20 3 minutes, half an hour. From here it takes another 4 three, three-and-a-half hours to hike to the summit 5 6 of Bald Mountain. Along this stretch you're not 7 seeing the project. Again, this is that transmission 8 line crossing. That is the third crossing in both directions. This is the panoramic from the summit of 9 Bald Mountain. And this is a view from Bald 10 11 Mountain. You're looking towards Mosquito Mountain there and Moxie Pond. So in the existing conditions 12 you can see the corridor -- existing corridor sort of 13 intermittently along that section. 14 This is a photosimulation. I'll just go back and forth a 15 little bit. You can see the change slightly in 16 corridor. Here is another view did in the winter. 17 18 You can see the existing conditions. This is the most visible portion. This is just about under 5 19 miles away. You can see that little bit of the 20 21 corridor there where the proposed corridor that will 22 be slightly expanded, but not highly noticeable. Ιt 23 certainly wouldn't, you know, highly affect the hiker experience when you're on Bald Mountain or wouldn't 24 25 interfere with the experience.

Okay. Now, we're going to move on to Route 1 2 201, the Old Canada Road National Scenic Byway. This is a map of a portion of the byway, most of it. 3 So the Canadian border is up here, so the byway from the 4 Canadian border down here towards Madison is that 5 6 purple line running through here. The project, 7 again, is the green line here and then the blue line 8 is the co-located segment all the way down through 9 there.

10 All right. So there are 49 miles of the 11 byway within the study area, however, the project may 12 only be visible from five locations. The first potential view for southbound travelers is the Attean 13 View Rest Area, a pull-off above Route 201 14 15 overlooking the Moose River Valley. From this location you can see this big pan here, there is 16 interpretive panels, rest area, et cetera, or 17 18 bathroom. The project would be over 7 miles -- well, 19 the project is 5 miles away, but this ridge right here blocks the closest 2 miles, so the project would 20 21 be visible -- portions of the project would be over 7 22 miles away and that would be sort of in that valley 23 basically would not be noticeable to, you know, an average viewer looking at that wide pan and the 24 25 pattern of the clearing would look similar to the

1 other patterns that are out there.

So as you're moving southbound you're 2 Okay. 3 going to travel about 6 miles or so from that rest area to the stretch of the Parlin Pond. Now, you're 4 not stopping here, but from this stretch there is a 5 6 field on the west side of Route 201, this is Parlin 7 Pond here, and through this segment here you'd have -- the southbound viewer would have about 15 8 seconds of view -- filtered view as you move through 9 here. And so the next series of photograph are sort 10 11 of replicating the southbound strip moving through 12 here.

So when you first -- you can see here this 13 14 is the Coburn ridge. I'm going to start just to 15 orient you, so then the Coburn ridge opens up as you get into that clearing, so you can see the homes here 16 17 and some vegetation along the edges. This is -- the 18 project area is in that notch right there, so it's not visible on this whole stretch. 19 It's in this notch over here. So you can see in these photographs 20 21 as we move through here that that portion where the 22 project is located is filtered through vegetation 23 sort of in the foreground area. We stopped here and we took this photograph and decided to do the 24 25 photosimulation from here because it would be a

1 location where you would have the most potential 2 visibility. Terry showed this image earlier, so I'll 3 just flip back and forth. Winter view. So you'd have a structure visible here about 2 miles away. 4 Α little bit of the corridor clearing in the winter 5 6 would be noticeable. In the summer you wouldn't 7 notice that.

8 Now, we're going to drive another 6 Okav. 9 miles to where the project will cross Route 201 in 10 Johnson Mountain Township at a 90 degree angle. 11 Again, 90 degree angles are the best because they 12 reduce the amount of time that a traveler would be within the corridor and just remove this and I'll go 13 back to that photo in a minute. 14 So this is a 15 photosimulation that we took from the intersection of Judd Road and Route 201 looking at the crossing here 16 in green. And just to kind of put this in context 17 18 that this -- the crossing is located about 1,300 feet south of Judd Road, about 2,000 feet north of Capital 19 Road, obviously the commercial logging road, and then 20 about 3/4 of a mile north of Jackman town line where 21 22 it intersects with 201. So it's very intentional 23 that it's located in an area that has a commercial locking activity. 24 25

Okay. All right. I just want to go back to

1 this photograph. In the same location but looking 2 northbound, we'll look at the southbound view, but 3 looking northbound, you know, there is evidence of 4 commercial forestry, so it's is not -- this is not 5 the most highly scenic portion of Route 201. This is 6 an area where commercial forest operations are 7 evident.

8 Okav. So this is a view looking southbound in the area and obviously in the summer. 9 So as you're driving through here, we picked this view 10 11 because this would be sort of the longer stretch of 12 potential visibility of the project. You'll see a top of a structure here and you'll see the conductors 13 So this would be about 80 seconds as 14 over the road. 15 you kind of come around the bend and are traveling southbound you'd see this and mainly you're seeing 16 the conductors. Now, obviously you're seeing it in 17 18 context with the distribution line that travels the 19 entirety of the byway. Going northbound, you see it for a little bit less time for like 30 seconds 20 21 traveling sort of 50 miles per hour in that area. 22 So now you've crossed in Johnson Okav. 23 Mountain Township and now you're going to travel another 30 miles, which takes say 40 minutes to 24 25 drive, you don't see the project at all in that 40

1 miles. Then you get to where the project will cross.
2 Here is the 201 here and this is the byway -- I'm
3 sorry, this is the byway here. This is the project
4 is the green line. So this is it where it's going to
5 be co-located with the existing transmission line.
6 This is Wyman Dam here.

7 Okav. So as you're driving through here 8 obviously you're slowing down to come to the village. There is a bend in the road here, so your duration of 9 view is pretty short because you're kind of turning, 10 11 you're doing this and you're turning and you're 12 underneath the line before you know it. Same thing going in this direction, you're kind of driving this 13 way, you're sort of looking at this opening and 14 15 wondering what's going on with this dam here and then you're driving through and you're under it, so it's a 16 very short duration of exposure. 17 This is the 18 existing conditions. Proposed conditions. Okay. 19 I'll just go back. This is, you know, you're in the corridor for 2, 3 seconds at the most, so you'd have 20 to look real quick on both sides to see that. 21 22 So that's the one that -- the All right. 23 fifth place of potential visibility here is in

24 Bingham. So this would be only for northbound people 25 on the byway. You can see the existing transmission

1 corridor. This is the river here. There is a 2 section where this is just the road right next to the 3 river. So it's about 45 seconds for someone going northbound, but they're going to see the existing 4 5 corridor structure and they'll see the expanded 6 corridor and the full structure. So, you know, 7 it's -- if it takes -- it's a 78 mile long byway and 8 say that takes you a couple hours to drive, you know, our segment is 49 miles, so maybe that's an hour, you 9 know, totaled up going northbound you're going to see 10 11 it for maybe a total of 80 seconds. Going southbound 12 it's like, you know, a minute-and-a-half, so in context it's a very small amount of time that someone 13 14 would actually see it. And just also to note that in 15 the village just south of the crossing in Moscow there is two existing transmission lines that are 16 17 crossing the byway right there as well, so, you know, 18 that's consolidated impacts in locations where there 19 already is some.

All right. So now we're going to transition into the outstanding river segments. The first one here is Carrabassett River in Anson. You can see, again, it's going to be co-located with the existing structure that's crossing the river now. There is agricultural and some wooded areas on either side of 1 the river. There is the existing conditions.

2 Proposed conditions. Again, there will be 100 foot 3 riparian vegetation preserved on either side of the 4 river.

Moving to the Sandy River here in 5 6 Farmington. Existing conditions. Just to note, 7 again, agricultural land use on either side. 8 Existing. Proposed. This is a good image to show how the proposed structures will be set back further 9 10 than the existing structures, so obviously they're 11 taller than these, but in perspective they don't seem 12 that much taller. They don't dominate the landscape or anything like that. 13

14 So moving towards the West Branch of Okav. 15 the Sheepscot River. This is Route Segment 5. This is in Windsor. This is an area where you have 16 17 existing transmission lines going through here. This 18 is the existing conditions and this is proposed, so 19 this is a 345 structure that's being built. Aqain, there would be preserved vegetation along here and 20 also in this area we supplemented with some 21 22 additional plantings.

This is a little bit out of order, but this is the Lower Kennebec River below the dam. So here is the dam, the substation and quite a few white dots

1 showing all of the existing structures. The project 2 will come through at that crossing that we just saw 3 in Moscow, come through here and then cross over to Pleasant Ridge Plantation. So that's the view 4 5 looking across now. You can see this is a great 6 access for fishing. That access will not be removed. 7 And just sort of showing this in context with the dam 8 and facilities. 9 Time check. I think we're okay. Okay. 10 MS. KIRKLAND: 11 minutes and 19 seconds. 11 AMY SEGAL: For the total or? 12 MS. KIRKLAND: Left. Okay. So I need to leave 5 13 AMY SEGAL: 14 minutes for Peggy, right? Okay. So I'll just go 15 through these quick. So this is Route 2/Route 8 in The existing conditions. Proposed 16 Anson. conditions. This is Route 2 here in Farmington. 17 18 Again, you can see the agricultural land uses on 19 either side. Existing conditions. Proposed 20 conditions. This is the Androscoggin Riverland State 21 Park, so there is two components of the park. The 22 biggest portion of the park is on the west side of 23 the river -- Androscoggin River. On the east side in Leeds is the smaller portion of the state park. 24 25 There is an existing access road that goes through

1 here, so we took photosimulations from that location.
2 Like I said, the transmission line was here prior to
3 it becoming a state park. Here is existing
4 conditions here to 115 and that's proposed for the
5 structures on that side.

6 Looking at Segment 4. This one is from 7 Riverside Drive in Auburn looking across the river. 8 So this is in the rebuild section -- rebuild segment 9 on Segment 4 where you have these two existing 10 three-poled wooden structures, which will be replaced 11 by two monopole structures of self-weathering steel 12 and as an example from the Segment 5 in Wiscasset, it's got sort of existing conditions and proposed 13 conditions with the 345 line. So that is -- that's 14 the -- all of the photosimulations. 15

16 So just to kind of recap here those 17 photosimulations were meant to really show all the 18 mitigation measures that we had been working with the 19 engineers and the team on, so we've got the overall sitings that we've mentioned, HD under the river, use 20 21 of self-weathering steel, very effective, 22 re-engineering to reduce structure height such as at 23 Moxie Pond, non-secular conductors at Rock Pond, the tapered vegetation management that we've been 24 25 speaking about a lot today as viewed from Coburn

Mountain on Johnson Mountain and then as viewed from
 Tumbledown Mountain as viewed from Rock Pond. We've
 already talked about preserving the habitat and so
 that's it.

5 PEGGY DWYER: All right. Hello. My name is 6 Peggy Dwyer and I work for a company called Dirigo 7 Partners, LTD, which provides real estate services to 8 CMP. In my role as -- as a lead project -- I just 9 forgot my role. In my role as lead agent on such 10 projects I work on route development, analysis and 11 mapping. I serve as a liaison between abutting 12 landowners and CMP as the landowners' primary point of contact with the company all the way from initial 13 14 project development through wrap-up at project 15 completion. My testimony concerns whether the project will adversely affect or unreasonably 16 interfere with existing recreational or navigational 17 18 uses and I am going to testify that it will not. I have been an active member of The Forks

I have been an active member of The Forks area river running community since 1988. I am an experienced white water guide, kayaker and wilderness trip leader. I continue to lead trips on Maine's navigable rivers as a private boater focusing most of my time on the Kennebec River from the Harris Station Hydroelectric facility on Indian Pond to Caratunk.

My life partner was a forester whose area of 1 2 responsibility included the project area from West 3 Forks to the Canadian border. Together, we spent countless hours enjoying and exploring this region's 4 woods and waters, so I became well-accustomed to all 5 6 of the sites, sounds and smells of active forest 7 management on an industrial scale. Those impacts never dampened my enthusiasm for hunting, fishing, 8 and foraging, hiking, biking, skiing, dog sledding, 9 and snowmobiling, birding, and boating in those 10 11 areas. This project will not unreasonably interfere with those recreational uses either. I know this 12 I worked, played and got married on the 13 region. 14 Kennebec River. I have as strong and emotional claim 15 to the Upper Kennebec region as many of the people you will hear from this week. Unlike some of them, I 16 make no additional claim to my view for our woods. 17 18 Members of the public afforded free access

19 to much of Maine routinely exercise a subject choice 20 to recreate in one location or another. Objectively, 21 this project creates no impediments to any existing 22 recreational activities. In fact, the project was 23 carefully sited in collaboration with the neighboring 24 landowners so as to avoid interference with existing 25 uses. A new transmission line starts with a straight

1 line from point A to point B. Every angle point you 2 see on that project map represents a thoughtful, 3 proactive effort to minimize an impact at the 4 planning stage to move away from a waterbody, road or viewshed here or tuck the line behind screening 5 6 topography there. Those efforts minimized impacts in 7 significant ways. Because the project will be under 8 ground at the Upper Kennebec River crossing it will have no impact to the Gorge whatsoever. The only 9 impact the project presents to any recreational users 10 11 will be visual and as was presented in the testimony 12 of expert witnesses DeWan and Segal that impact does not seem unreasonable. Access and opportunity 13 outside the corridor are unchanged as a result of 14 15 this project.

16 Within CMP's corridor recreational opportunities will be expanded with a possibility of 17 18 new licensed trails all the way up. I ask you to look at the example of CMP's existing transmission 19 20 line corridors, which are widely utilized for all kinds of recreational activities and provide the 21 22 backbone of statewide interconnected trail systems 23 invaluable to Maine's outdoor enthusiasts. Far from suppressing recreational activities, CMP's corridors 24 25 are recreational reserves. My conclusion is that

1 this project will not adversely affect nor

7

8

2 unreasonably interfere with any existing recreational 3 or navigational uses. Thank you.

MS. MILLER: Thank you. Anyone else on the panel need to say anything? I think you have about four minutes left.

> PEGGY DWYER: Wow. How did we do that? MS. MILLER: Thank you.

9 TERRY DEWAN: This is a point, there is a dot on the floor right there, when you look at the 10 11 photosimulations it's important to be able to stand 12 at that very viewpoint just to get a sense of how big the image is relative to real life. 13 It's always a question, you know, how far back should the screen --14 from the screen should I be in order to approximate 15 what it really is going to look like. Roughly it's 16 about $1 \frac{1}{2}$ times the width of the image and you can 17 18 use that same rule of thumb when you're looking at the simulations on the walls here. 19

MS. MILLER: Thank you. So now we will start on cross-examination. I have the times available for each of the groups that are left over and this time we're going to go in the opposite order we went before so we would start with Group 8 and for Group 8, I've got 9 minutes and 22 seconds.

1 MS. TOURANGEAU: Good afternoon, again. And 2 I am still Joanna Tourangeau for Group 8, NextEra. Ι 3 have just a couple questions primarily, I believe, 4 for you, Mr. Berube. Am I saying your last name 5 correctly? 6 Yup, that's correct. BRIAN BERUBE: 7 MS. TOURANGEAU: Thank you. You assess the 8 environmental impacts associated with the project in 9 your alternatives analysis? 10 BRIAN BERUBE: Correct. 11 MS. TOURANGEAU: Did your assessment of the alternatives include looking at the undergrounding 12 alternative? 13 14 BRIAN BERUBE: Can you be more specific? 15 MS. TOURANGEAU: Did you look at 16 undergrounding as an alternative to any portion of 17 the project at all? 18 BRIAN BERUBE: To any specific portion or? 19 MS. TOURANGEAU: Any at all, did you look at 20 it? 21 BRIAN BERUBE: Yes. 22 MS. TOURANGEAU: Is that discussed in your 23 alternatives analysis? 24 BRIAN BERUBE: No. 25 MS. TOURANGEAU: Okay. How did you look at

it then? Can you -- is it discussed in your direct 1 2 or rebuttal testimony? 3 BRIAN BERUBE: I do not have rebuttal 4 testimony. 5 MS. TOURANGEAU: You're right. Sorry. 6 BRIAN BERUBE: Yup. And as far as my direct 7 testimony there is three ways to look at 8 alternatives, if you will. There is a macro level 9 and a micro level and from the real estate perspective my alternatives analysis testimony 10 11 considered the macro level alternatives. As far as 12 the undergrounding alternative, that was not done by 13 myself. 14 MS. TOURANGEAU: Is there someone else that 15 that was done by on the alternatives analysis? 16 BRIAN BERUBE: It was not done by myself nor 17 anybody on this panel. 18 MS. TOURANGEAU: Okay. Thank you. What was 19 the project purpose that you used in coming to the 20 conclusion that there were no available alternatives 21 under NRPA or SLODA available to the Applicant that 22 would have less environmental impact? 23 Yup. The project purposes is BRIAN BERUBE: as stated by Mr. Dickinson. 24 25 MS. TOURANGEAU: Great. Thank you.

1 BRIAN BERUBE: You're welcome. 2 MS. MILLER: Thank you. So next we have 3 Group 7 and Group 7 has one minute. 4 MR. SMITH: No questions. Thank you. Okay. Thank you very much. 5 MS. MILLER: 6 Group 6. You've got 6 minute 48 seconds. 7 MR. WOOD: Thank you. Rob Wood with Group 8 Mr. Berube, can you speak to the cost of 6. 9 acquiring conservation easements as opposed to the costs of fee acquisition for parcels in this region? 10 11 And this is a follow-up on a question we had asked to 12 the earlier panel and they had said perhaps this second panel could speak to that. 13 14 BRIAN BERUBE: Could you clarify what you mean by cost? 15 16 MR. WOOD: Sure. So on a per acre basis if 17 you were to purchase land in fee and hold a title to 18 it, how would that cost -- what would the cost be on 19 a per acre basis compared to the cost of the 20 acquiring an easement for a working forest on the 21 same acreage? 22 BRIAN BERUBE: Could you, I quess, more 23 clearly define cost as far as land, labor, there is 24 lots of components to cost. 25 MR. WOOD: So the land. The land only.

1 BRIAN BERUBE: Specific to the acquisition 2 cost, if you will, of conservation lands, I cannot 3 speak to that in relation to the value of those lands 4 acquired for the project. 5 MR. WOOD: Can you speak in general terms? 6 BRIAN BERUBE: General terms? 7 MR. WOOD: To the cost of conservation -- so 8 the cost of an acre in conservation easement versus fee acquisition in this general region. 9 10 BRIAN BERUBE: I quess in general terms you 11 can assume them to be similar. 12 MR. WOOD: Okay. And then to the panel as a whole, when you're looking at scenic and recreational 13 14 impacts and mitigating those impacts, do you ever 15 look for synergies between the mitigation measures for scenic and visual impacts and for ecological 16 17 impacts, so can you -- if you could address both 18 scenic and ecological impacts, say habitat 19 fragmentation simultaneously, do you look at that? 20 AMY SEGAL: Right. I guess an example would 21 be at Gold Brook where we were, you know, looking at 22 the visual impact from Rock Pond and knowing that 23 IF&W was working with CMP to do this full height vegetation for habitat reasons, obviously there is 24 25 benefits of preserving the vegetation there, so the

1 result was taller poles. So we were kind of looking 2 at the trade-offs with, you know, improving 3 preserving habitat and the visual impacts to that and 4 that's where we kind of stepped a little bit further 5 and asked and recommended to CMP that they move 6 towards the tapered vegetation management on the side 7 slope of Tumbledown Mountain.

8 TERRY DEWAN: You've probably heard the term 9 balancing quite a bit today. Every time you look at 10 an adjustment to the line that's been laid out by the 11 engineers it's not simply a matter of, well, let's 12 just move the poles over here or reduce the height, you have to look at the whole spectrum of analyses. 13 If you say, well, if the poles got shorter therefore 14 15 closer together then you'd have to ask the question, well, by moving them closer together what effects 16 does that have on things like vernal pools or 17 18 wetlands or various types of habitats, buffer zones 19 and so forth, so it's a real three dimensional problem that involved a lot of consideration by a 20 21 whole plethora of experts to come up with a workable solution. 22

23 MR. WOOD: Thank you. And just one more 24 follow-up. Are there other areas in Segment 1 where 25 vegetative tapering as described from the Coburn

Mountain photosimulation or a scene from the Coburn 1 2 Mountain photosimulation could be useful in 3 mitigating visual impacts? AMY SEGAL: Well, there is numerous 4 5 locations when I went through the photosimulations 6 where the corridor clearing itself is not visible, so 7 tapered vegetation management in those areas wouldn't necessarily change the level of visual impact if 8 9 that's what your question is. We didn't, you know, are there any other areas along the corridor where 10 11 you would look to vegetative tapering potentially to 12 reduce visual impacts? AMY SEGAL: The two occasions that we 13 proposed are the two that we recommended. 14 15 MR. WOOD: Okay. TERRY DEWAN: It works best in this 16 17 particular case when you're looking right down the 18 line when you're trying to minimize or soften the 19 effect of that wide open expanse, in most locations the line is screen running perpendicular to the 20 21 viewpoint and so tapering the vegetation is not going to have the effect that it would as we saw from the 22 23 view at Coburn Mountain. 24 MR. WOOD: Okay. Thank you. 25 Thank you. So we're at 5 MS. MILLER:

1 o'clock, we're going to try to wrap up at 5:30. And next is Group 4. You have about 39 minute, so if --2 3 it puts you just a little after 5:30, so we can wrap up a few minutes later and let you finish if that's 4 5 okay with everybody to end by about 5:40. Is that okay with the Intervenor groups? Is it okay with 6 7 everyone at this table? All right. Let's go ahead 8 and do that then.

9 MS. JOHNSON: I think I might have gotten 10 the short straw keeping people from dinner. So these 11 questions are for Ms. Segal --

12 THE REPORTER: I'm sorry, I don't know --13 MS. JOHNSON: Sorry. My name is Cathy 14 Johnson and I'm representing the National Resources 15 Council of Maine, which is one of the Group 4 16 Intervenors. Ms. Segal, I assume that you are familiar with Dr. James Palmer, who is the scenic 17 18 expert who DEP asked to do a peer review of this 19 Visual Impact Analysis, correct? 20 AMY SEGAL: Correct. 21 MS. JOHNSON: And you've had a chance to 22 review his two reports? 23 AMY SEGAL: Correct. 24 MS. JOHNSON: And in his second report, he 25 noted that, quote, the conclusion of CMP's survey of

Kennebec rafters is that views of power lines on 1 2 hillsides creates visual impacts that are among the 3 highest of any human activity or development, closed 4 quote. Do you recall that quote? Yes. And Mr. Palmer also noted 5 AMY SEGAL: 6 that this, quote, survey provided information to 7 assess visual impacts at other locations, closed He is referring to other locations other than 8 quote. the Kennebec Gorge, which is where you did the 9 10 survey, correct? AMY SEGAL: I'm sorry, what was the 11 12 question? MS. JOHNSON: He is saying that the 13 14 information you got from the survey of the Kennebec 15 Gorge users is also valuable visual impact and other 16 areas, correct? 17 AMY SEGAL: Yes. Yeah, I'm sorry. 18 MS. JOHNSON: In particular, he noted that 19 the survey indicated that, and this is a quote, it 20 may not be necessary to see the transmission 21 structures or the cleared right of way for the scenic 22 quality to be degraded. In this survey, views of the 23 conductors and warning bells were sufficient to degrade the scenic quality at the Kennebec River 24 25 crossing, closed quote. Do you recall that quote?

1 AMY SEGAL: Um... I recall it. 2 It's in his November report. MS. JOHNSON: 3 So you're asserting now that the CMP line will not 4 unreasonably impact scenic resources or scenic uses of scenic resources; is that correct? 5 6 AMY SEGAL: Correct. With the mitigation 7 measures proposed. 8 MS. JOHNSON: Did you do any other surveys 9 other than the Kennebec Gorge survey? 10 AMY SEGAL: No, we had a consultation with 11 DEP and Mr. Palmer regarding user intercept surveys 12 and at the time it was recommended that we look at doing one for the Upper Kennebec River for rafters. 13 There were a few other locations that were discussed 14 15 and none of the other ones resulted in the requirement of having a survey done. 16 17 MS. JOHNSON: So you actually have no 18 evidence based on any surveys to support your 19 assertion that there are no unreasonable adverse impacts on these other sites? 20 21 TERRY DEWAN: I don't think that would be a fair characterization. As you know from our 22 23 testimony, we've made reference to other work that's 24 been done, for example, the Baskahegan study, granted 25 it's not a transmission project, but it is a

1 situation where people who use Baskahegan Lake in 2 Washington County were asked to comment upon their 3 experience and generally the visual environment and it's in a lake that it had, I believe, 24 wind 4 5 turbines on it several years ago and the majority of 6 the people that commented said that it really did not 7 affect their enjoyment, the use of the lake at all. 8 Something else which had just come up recently --9 MS. JOHNSON: I think that answers my question. Thank you. 10 11 MR. MANAHAN: I would object to that cutting 12 the witness off. He was answering her question and she -- he's entitled to answer the question and I 13 14 would request that he be allowed to finish his 15 answer. 16 MS. BENSINGER: Do you want to respond to that? 17 18 MS. JOHNSON: No. 19 MS. BENSINGER: It sounded like you were 20 about to go on to -- you said something else that 21 comes -- has come up --22 TERRY DEWAN: Yes. 23 MS. BENSINGER: Is that in response to her 24 question? 25 TERRY DEWAN: Yes, it is. It's another

source of information on the affect of infrastructure 1 2 on people's desire to use --3 MS. BENSINGER: And that's in the record? TERRY DEWAN: It is not in the record. 4 5 MS. JOHNSON: I would object to that. 6 MR. MANAHAN: Well, this is 7 cross-examination. He can answer a question with 8 something that's not in the record. 9 MS. BENSINGER: Okay. I would -- if it's responsive to the question, I would recommend that it 10 be allowed. 11 12 TERRY DEWAN: We feel that it is. As you 13 know, the previous governor established a commission 14 to establish -- to look at the effect of wind energy 15 on the way people use recreation resources and in December of last year a survey was conducted by a 16 well-known survey firm between December 5 and 12 17 18 looking at 536 panelists most of these people were 19 from out of state, sort of people who come to this area for recreation asking -- they were asking a 20 21 number of questions and just to quote from the 22 report, 3 percent of the travelers surveyed considered the views of alternative energy resource 23 infrastructure to be very important when selecting a 24 25 vacation destination, 3 percent. Among 12 items that

travelers might consider when selecting a vacation 1 destination views of alternative energy source 2 infrastructure was a consideration that rated the 3 4 least important. Now, granted, this doesn't address 5 the specific question about the fact that the same 6 transmission lines would have, but it does give an 7 indication of how the general public takes into consideration views of infrastructure such as 8 transmission lines and making decisions about whether 9 or not to go to a place and enjoy the scenic 10 11 resources.

12 So it's true, is it not, that MS. JOHNSON: the DEP suggested that you do other intercept --13 14 visitor intercept surveys including adding Attean 15 Rest Area, you did not do such a survey, did you? They did suggest two. We did 16 TERRY DEWAN: the one of the Upper Kennebec River. 17 The --18 MS. JOHNSON: Didn't they suggest two 19 others? 20 TERRY DEWAN: Can I finish, please? Thev 21 also suggested the Attean Rest Area might be one. 22 And, again, in consultation with Mr. Beyer and Dr. 23 Palmer we talked about the changes that might be

24 visible from that location. Knowing that, as Amy 25 said, the project is 5 miles away, but at 5 miles

1 it's hidden by a mountain and the closest point of 2 visibility is 7 miles and beyond that, you know, it's 3 hard to see where the project would be located and we 4 didn't feel that it would really produce significant 5 results in terms of answering the questions that may 6 be raised.

MS. JOHNSON: 7 Okay. Well, let's go back to 8 the Baskahegan survey that you mentioned. In that 9 survey, and the this was a survey after the project had been built, so those people who had chosen not to 10 11 come back to the place because now there's industrial 12 viewshed there you would not have -- the survey would not have picked up those people? 13

TERRY DEWAN: 14 There is no way of determining 15 the level of use that occurred prior to the survey prior to the installation of the turbines. As part 16 of the report that was done, it was noted that none 17 18 of the people that were interviewed as part of the 19 survey commented that the general level of use over 20 the past couple of years seemed to have been on the 21 rise. Now, was that due to the turbines? Probably 22 Was it due to the price of gasoline? not. Perhaps. 23 Perhaps it was more due to the general state of the 24 economy. Don't know.

25

MS. JOHNSON: Or maybe it's due to the

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quality of the fishing. Isn't it true that 70 1 2 percent of the people that were surveyed said that 3 fishing was the reason that they came to Baskahegan 4 Lake; isn't that correct? 5 TERRY DEWAN: Absolutely. 6 MS. JOHNSON: And only 4 percent of the 7 survey -- folks surveyed said that scenic character 8 was their primary activity of Baskahegan Lake; is 9 that correct? 10 TERRY DEWAN: That is a fishing crowd. 11 MS. JOHNSON: Yup. And you are certainly aware, as you've -- Ms. Segal has just described that 12 this new 53 mile corridor includes a National Scenic 13 Byway, correct? 14 15 AMY SEGAL: Correct. 16 TERRY DEWAN: As you have just seen, yes. 17 MS. JOHNSON: And I assume that you're aware 18 this region of the state attracts many visitors 19 because of its undeveloped scenic character, correct? Well, the scenic byway brings 20 TERRY DEWAN: 21 people to an area for any number of reasons. The 22 scenic character is just one of those reasons. 23 Right. MS. JOHNSON: But they come for the -- the scenic character is one of the main 24 25 reasons people drive the scenic byway, correct?

TERRY DEWAN: That is one of the reasons, 1 2 yes, as the name implies. 3 MS. JOHNSON: And this new corridor, the transmission towers and the lines, would be visible 4 5 as you described earlier from sections of this 6 National Scenic Byway as well as from public lands 7 that connect -- or that have trails that connect in 8 the National Scenic Byway, correct? 9 AMY SEGAL: It's visible from the scenic 10 byway, yup. 11 MS. JOHNSON: Yup. And would you agree that 12 the percentage of people using the National Scenic Byway who identified viewing scenery as their primary 13 activity is likely to be significantly higher than on 14 15 Baskahegan Lake where the overwhelming number of 16 people are there for fishing? 17 Well, certainly it's a much TERRY DEWAN: 18 different type of user group. I don't know if it's 19 fair to compare people that are driving versus people who are in a boat. 20 21 MS. JOHNSON: But you don't have any 22 evidence to support that opinion? 23 TERRY DEWAN: It's -- it's an opinion on our 24 part, yes. 25 MS. JOHNSON: Because you didn't do any

1 intercept surveys of visitors along the scenic byway? 2 TERRY DEWAN: We did not. 3 MS. JOHNSON: And, in fact, in the survey that you did do of the Kennebec River users, 74 4 percent said that viewing scenery was one of the 5 6 activities they planned for during their visit to the 7 Upper Kennebec River, correct? 8 TERRY DEWAN: That's correct. 9 MS. JOHNSON: Thank you. Now, your visibility analysis used data from the land cover 10 11 from 1999-2001; is that correct? 12 AMY SEGAL: Yes, the data that we used for 13 vegetation land cover did. Again, it's just a tool 14 for theoretical visibility. MS. JOHNSON: And DEP and the LUPC 15 16 questioned why you didn't use the more recent data; 17 isn't that right? 18 AMY SEGAL: They did question it, yup. 19 MS. JOHNSON: But you did not redo your 20 analysis using the more recent data, did you? 21 AMY SEGAL: So we -- obviously, when we look 22 at doing our viewshed analysis and we are looking at 23 the cover type that we're using, we did figure -look into whether or not like Point Cloud and LiDAR 24 25 data was available and it was just coming online in

2017 and it was incomplete for our project area, so 1 we chose to use land cover mapping that was complete 2 3 for the whole project. And, again, it's just a tool that we use, it's not the tool that we use to 4 5 determine whether this is potential visibility. 6 MS. JOHNSON: So instead of using more 7 recent data you actually argued in your testimony 8 that what you did was good enough because as you just said the newer data was not available for the entire 9 study area, correct? 10 AMY SEGAL: It wasn't complete for the whole 11 12 study area, correct. MS. JOHNSON: So is it your position that 13 14 for a project that is 145 miles long you would not 15 use updated scenic data unless it was available for every single portion for the 145 miles? 16 17 Well, I just need to make sure AMY SEGAL: 18 it's clear that when we're using -- when we develop 19 the viewshed analysis that, you know we do a considerable amount of research as well. We're 20 21 looking at Google Earth. We can see the cutting 22 patterns. We can look at Google Earth over time so 23 we can see how it's changed. We know even though our viewshed analysis map says that there is no 24 25 visibility from a certain point and a high point, a

viewpoint and we know it -- because of experience 1 2 because of field work that there is visibility and 3 research, I mean, we do an extensive amount before we 4 go into the field. So, again, it's the amount of research that we do educating ourselves on our field 5 6 area, our study area completely, you know, the whole 7 10 mile swath all the way down as well as, you know, 8 using the viewshed analysis as a tool, so it's a combination of those two that helps us figure out 9 where we need to go and focus our efforts. 10 11 MS. JOHNSON: But you didn't answer my

12 question. My question was is it your position that 13 for a project that's 145 miles long you would not use 14 a updated data unless it was available for every 15 single portion of the line?

AMY SEGAL: It's the double negative in that sentence. Generally we like to use the most updated information, but for this project we felt that what we were using was appropriate.

MS. JOHNSON: Well, one of the reasons that Dr. Palmer was concerned about the fact that you did not use the most recent data is because that data is 20 years old and does not include the effects of recent harvesting, correct?

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AMY SEGAL: Correct. But as I mentioned, we

1 did an extensive amount of research using Google 2 Earth, which is aerials from 2016, '17, '18, so they 3 were pretty accurate and pretty up-to-date for the 4 whole study area.

5 TERRY DEWAN: That's also one of the reasons 6 we do such extensive field work, you know, the 7 viewshed data that we do with computerized mapping indicates areas where there is a probability that 8 9 we're going to see the project, but we don't take that as gospel. We go out there and hike and we 10 11 kayak, we look at it to make sure that we know where 12 it's going to be visible from and to what extent the project may be visible. 13

MS. JOHNSON: Dr. Palmer raises multiple
concerns about the visibility analysis noting that
the analysis understates the potential visibility by
50 percent, correct?

AMY SEGAL: Mr. Palmer's or Dr. Palmer's criticism was particularly on the viewshed of the mountain mapping, yes.

MS. JOHNSON: Yes, the mapping. Dr. Palmer notes that the problems with the visibility analysis all stem from the fact that you did not use the most up-to-date data, correct? That is his conclusion in his November report?

1 That may have been his --AMY SEGAL: 2 Correct? MS. JOHNSON: AMY SEGAL: -- the way he was --3 MS. JOHNSON: Is that his conclusion? 4 5 AMY SEGAL: -- disputing it, but --MS. JOHNSON: That is his conclusion. 6 7 AMY SEGAL: That was his conclusion at the 8 time. 9 MS. JOHNSON: And you do understand that it's the lack of up-to-date data that is of concern 10 11 to Dr. Palmer? 12 AMY SEGAL: Again, we've done an extensive 13 amount of research and analysis. It's, you know, Dr. Palmer criticized the data that we used to do the 14 15 viewshed analysis maps, that's just a tool as we've explained. 16 17 MS. JOHNSON: So turning to the AT for a 18 second, in your testimony you noted that the line 19 crosses the Appalachian Trail three times and that that justified mitigation, I believe those are your 20 21 terms, justified mitigation; is that correct? 22 AMY SEGAL: I am not sure I --23 MS. JOHNSON: It's on Page 33 of your 24 testimony. 25 AMY SEGAL: Okay.

1 MS. JOHNSON: Could we see Page 119 of this 2 That's not it. I quess we'll have report? Hmm... 3 to use the old tech way instead of the new tech way. 4 So this is where the Appalachian Trail -- where the 5 line crosses the Appalachian Trail, correct? 6 AMY SEGAL: Along Troutdale Road, yup. 7 MS. JOHNSON: Yup. One of the three places. 8 AMY SEGAL: Yup. 9 MS. JOHNSON: And this is the photosimulation with the mitigation that you're 10 proposing? 11 12 It's one of the forms of AMY SEGAL: mitigation of buffer planting plans, yup. 13 14 MS. JOHNSON: So in your opinion, does that 15 mitigate the scenic impact of this line? AMY SEGAL: As I mentioned, it will buffer 16 the view towards the cleared corridor. It won't 17 18 screen the structures. 19 MS. JOHNSON: And you can even see right 20 through it through the corridor itself? 21 TERRY DEWAN: Keep in mind that this is a 22 wintertime view and that we suspect that it gets 23 relatively light views from hikers during the wintertime. During the summertime the native 24 25 vegetation that you see there would be used as part

of the mitigation plantings would block most of the 1 slope on the opposite side of Joe's Pond there. 2 3 MS. JOHNSON: Okay. Why -- and why did you 4 not propose any mitigation for the other two 5 crossings of the AT? 6 AMY SEGAL: We -- so the two crossings of 7 the AT on either side of Troutdale Road, you know, 8 crossing, traversing through the existing corridor 9 now, it's 150 feet of -- they're kind of going through scrub/shrub vegetation there now and -- and I 10 11 know that there is -- actually, I think there has 12 been some discussion of potential plantings at those I don't know the specifics to that. 13 crossings. 14 MS. JOHNSON: Is that in the record? 15 AMY SEGAL: It's not in the record now. Т think it's... 16 17 MS. JOHNSON: And you did not propose as mitigation limiting the crossing to just one instead 18 of three? 19 AMY SEGAL: Well, I do know in working with 20 21 CMP and their team there has been ongoing discussions 22 with the various organizations, park service, and 23 MATC and others on --MS. JOHNSON: But there is no evidence of 24 25 that in the record?

1 AMY SEGAL: Of the discussions? No. So 2 you're asking me if we -- we have looked at -- okay. 3 Our assignment was to look at the visual impacts of 4 the project as it crosses three times along --5 MS. JOHNSON: And so when you --6 AMY SEGAL: -- co-located with the existing. 7 MS. JOHNSON: And so when you thought about 8 mitigation you didn't think about things like, oh, 9 maybe we should avoid this crossing all together, that was not one of the things you thought about when 10 11 you thought about mitigation? 12 AMY SEGAL: We were looking at the visual 13 impacts for the project as proposed. 14 MS. JOHNSON: As a result of your analysis 15 in the photosimulations that you showed us today, you concluded in the application, quote, based on this 16 17 VIA review of the project in the range of potential 18 visual impacts, Segment 1, that's the 53 miles of new 19 corridor, will not unreasonably interfere with existing scenic and aesthetic uses and will not 20 21 adversely affect scenic character in the surrounding 22 area, closed quote. That was your conclusion, your 23 testimony on that? 24 AMY SEGAL: Correct. 25 MS. JOHNSON: And at the time you made that

statement, Segment 1, the power line crossed the 1 Kennebec Gorge overhead at that time; is that 2 3 correct? 4 AMY SEGAL: That's correct. MS. JOHNSON: 5 And so your conclusion in the 6 application was that an overhead crossing at the 7 Kennebec River Gorge would not constitute an 8 unreasonable adverse impact on the existing scenic and aesthetic uses and would not adversely affect the 9 10 scenic character of the Kennebec Gorge; is that 11 correct? 12 AMY SEGAL: That's correct. Provided that the preserved forested buffers on both sides stayed 13 14 intact and you couldn't see any structures on either 15 side. MS. JOHNSON: Given the overwhelming public 16 outcry and the results of CMP's own Kennebec River 17 18 rafters survey, CMP now proposes to put the line 19 under the river, correct? 20 AMY SEGAL: Correct, but I will add when we 21 did the user intercept survey even though there was 22 people who said that it would be a visual impact it 23 would decrease -- slightly decrease, you know, their experience they overwhelmingly said they would still 24 come back, so it wasn't impacting their continued use 25

1 and enjoyment.

2 MS. JOHNSON: So given the overwhelming 3 public outcry and CMP's decision to put the line 4 under the river --

MR. MANAHAN: 5 I would object to the 6 witness -- to the questionings -- the questioner's 7 characterization of the overwhelming public outcry. She's -- she's putting evidence into the record that 8 9 isn't in the record right now by virtue of that question and I think she needs to establish a 10 foundation for her statement there's an overwhelming 11 12 public outcry.

13 MS. BENSINGER: Do you want to respond to 14 that?

15 Well, the public hearings will MS. JOHNSON: be tomorrow and on Thursday, but we certainly have 16 seen public -- overwhelming public concern expressed 17 18 in the comment records and in the public sphere. 19 MS. MILLER: Can you rephrase the question? 20 MS. JOHNSON: Okay. So given the fact that 21 CMP concluded that they should put the line under the 22 Kennebec River, their conclusion that the overhead 23 line would have -- would -- so your conclusion that the overhead line would not have an unreasonable 24 25 adverse impact on the Kennebec River Gorge was

1 spectacularly wrong, wasn't it?

2 AMY SEGAL: Well, I would disagree with 3 that, I mean, when we -- when you think about the 4 impacts to the river and you think -- you need to think of it in the full context of the experience, so 5 6 individuals who are going to raft the river are 7 driving along Indian Pond Road, along the existing transmission line, they get up to Harris Dam where 8 9 they're prepping they're walking down the stairs and putting in, it's a commercial, you know, they're 10 11 there because there is a water release -- scheduled water release from a dam so all of that is very much 12 part of that experience. And then you go through the 13 14 rapid section and through that section you are not 15 going to see the project and you get to the sort of flat water area and that's where the project would 16 have been visible, so it's 8 miles south of the dam 17 18 after you've gone through this experience, so, you 19 know, yes, that was our conclusion. MS. JOHNSON: Every trip has to start and 20 21 end somewhere; isn't that right? 22 AMY SEGAL: Logically.

MS. JOHNSON: Yeah. So the fact that they start at the dam doesn't mean that they don't care about the scenic character. And, in fact, 74 percent

of the people in the Kennebec River survey were 1 2 concerned -- were -- cared greatly about the scenic 3 character of the region; isn't that right? 4 AMY SEGAL: Yes. MS. JOHNSON: 5 So given your track record on 6 deciding what's a significant adverse scenic impact, 7 isn't it entirely possible that your conclusion that the CMP line would have no unreasonable adverse 8 scenic impact on Coburn Mountain, Number 5 Mountain, 9 Parlin Pond, Rock Pond, the Old Canada Road Scenic 10 11 Byway, Moxie Stream and other beloved undeveloped 12 scenic places along the proposed corridor could be 13 equally wrong? 14 I would disagree and I've showed AMY SEGAL: 15 the simulations and the mitigation measures that are 16 being employed to... Thank you. I have no other 17 MS. JOHNSON: 18 questions. 19 MS. MILLER: Did Group 4 have other 20 questions for the other witnesses? 21 MS. ELY: No, thank you. 22 MS. MILLER: Okay. I think we'll go ahead 23 and wrap up for the day. We're about 5 minutes early if you can believe that. I appreciate all of you for 24 25 your participation, especially sticking to the time

1 limits that we had set.

2	So just in closing, I just want to thank you
3	all for your participation. We're going to
4	recommence here at 8 o'clock in the morning, same
5	location. And tomorrow is going to be the day where
6	at 10:30 we're going to switch over to the LUPC, the
7	Commission, and we'll also have the evening portion
8	of testimony, which will be in another location and
9	we'll remind of you that in the morning, so thank you
10	everybody. We'll see you tomorrow.
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13	(Hearing continued at 5:25 p.m.)
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	Dostie Reporting

CERTIFICATE I, Robin J. Dostie, a Court Reporter and Notary Public within and for the State of Maine, do hereby certify that the foregoing is a true and accurate transcript of the proceedings as taken by me by means of stenograph, and I have signed: _/s/ Robin J. Dostie_ Court Reporter/Notary Public My Commission Expires: February 6, 2026 DATED: May 3, 2019 Dostie Reporting

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