STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

and

STATE OF MAINE LAND USE PLANNING COMMISSION

IN THE MATTER OF:	
CENTRAL MAINE POWER COMPANY 25 Municipalities, 13 Townships/Plantations, 7 Counties) APPLICATION FOR SITE LOCATION OF DEVELOPMENT ACT PERMIT AND NATURAL RESOURCES PROTECTION
) ACT PERMIT FOR THE NEW ENGLAND
L-27625-26-A-N) CLEAN ENERGY CONNECT
L-27625-TB-B-N	
L-27625-2C-C-N	
L-27625-VP-D-N)
L-27625-IW-E-N)
)
CENTRAL MAINE POWER COMPANY)
NEW ENGLAND CLEAN ENERGY CONNECT)
SITE LAW CERTIFICATION SLC-9)

GROUPS 2 AND 10'S POST - HEARING BRIEF

Intervenor Group 2 and Intervenor Group 10 (collectively, "Groups 2 and 10") by and through their attorneys, BCM Environmental & Land Law, PLLC, pursuant to Section 23 of Chapter 3 of the Maine Department of Environmental Protection (the "Department") Rules and Rule 5.18 of the Land Use Planning Commission (the "Commission") Rules, submits this Post-Hearing Brief and Appendix of Proposed Findings of Fact and Conclusions of Law incorporated by reference, to deny Central Maine Power Company's ("CMP" or "Applicant") application for the so-

called New England Clean Energy Connect ("NECEC" or "Project"), 145-mile, 150 foot wide¹ transmission corridor.

SUMMARY

CMP has not met its burden. The 145-mile, 150-foot wide transmission corridor will unreasonably interfere with existing scenic and aesthetic uses. The first 53.5 miles slicing through Maine's western mountains and exceptional brook trout streams and across the Kennebec Gorge will adversely affect Maine's natural resources and wildlife habitat. This industrial corridor running through the largest contiguous forest east of the Mississippi cannot be buffered from the existing recreational uses and natural resources within the P-RR subdistricts. Alternatives exist. The Applicant chooses not to spend its money on more expensive but far less damaging routes. The Department and the Commission should just say no to NECEC.

DEPARTMENT HEARING TOPICS AND RELATED LEGAL CRITERIA

I. Applicant Failed to Demonstrate that the Project Will Not Unreasonably Interfere with the Scenic Character, Existing Scenic, Aesthetic, Recreational Uses and that the Development Fits Harmoniously into the Natural Environment.²

Maine's northwestern region is home to some of the northeast's most diverse and remotely beautiful landscapes. From the vistas atop Coburn Mountain, to the rapids of the Kennebec, the waters of Beattie Pond, and the cold-water Brook Trout streams — the proposed project would touch it all. Beyond mere scenery, these scenic landscapes of Maine are one of the state's most valuable assets, providing the lifeblood for a thriving outdoor-based tourism industry and culture. The purposes of 38 MRS § 480-A make clear it is the Department's responsibility to ensure these precious elements of Maine's natural environment are not permanently scarred by this for-profit utility line project bringing zero energy to this state's energy needs: "The Legislature further finds

¹ The actual width of the right of way under the control of CMP is 300 feet wide.

² 38 M.R.S. § 480-D(1), 38 M.R.S. § 484(3), DEP Rules Chapters 315 and 375: § 14.

and declares that the cumulative effect of frequent minor alterations and occasional major alterations of these resources poses a substantial threat to the environment and economy of the State and its quality of life." There is only one conclusion to be reached: CMP has failed to meet its burden. The Applicant has not demonstrated that the proposed project will not have unreasonable adverse visual impacts, does not unreasonably interfere with existing scenic and aesthetic uses, does not diminish the public enjoyment and appreciation of the qualities of a scenic resource pursuant to 06-096 C.M.R. 315(4).

1. Applicant Failed to Demonstrate that the Project Would Not Unreasonably Interfere with Scenic Resources.

Applicant has deliberately chosen to limit its—and by extension the Department's—field of view; minimizing the visual impacts of the proposed project. Applicant has intentionally created a view for the Department of merely a few, scattered impacted scenic landscapes, with only marginal potential adverse effects that can be simply mitigated.⁴ Peer review of Applicant's consultant TJD&A conducted by James F. Palmer, Scenic Quality Consultants and evidence presented by Intervenors in Groups 2 and 10, NRCM and other Intervenors, which encompasses a broader view consistent with legal requirements, shows that the proposed project would have unreasonable adverse effects on Maine's scenic resources. Applicant exceeds credulity when it asks the Department to accept that this proposed project would have virtually no effect on the iconic landscapes of Maine's western mountains and river valleys when it has utterly failed to capture all potentially impacted scenic resources. The Department and the Commission specifically requested that the Applicant, "... provide a complete inventory of scenic resources potentially impacted by the

³ 38 MRS § 480-A.

⁴ Even for the Applicant, it is difficult to argue there is any way to mitigate the potential impact of the proposed project. See Tr. 05/09/19, Hearing Day 6, at 196, line 25 through 197, 15 (DeWan/Segal)

MS. BOEPPLE: Is there a way to mitigate the visual impact that this particular design would create?

TERRY DEWAN: You're not going to make them any less visible.

project, including but not limited to historic sites, streams and public roads." As Mr. Palmer noted, rather than comply with this request, Applicant said that the format and methodology used for the Maine Power Reliability Project was "virtually identical" to that which it used here. As Mr. Palmer stated: "This may be the case, but it is not an adequate response. The MPRP VIA was not subject to peer review, and now that the NECEC is being peer reviewed there are questions about why the identification of scenic resources does not follow the plain language interpretation of Chapter 315.10 as described in Palmer's (2018) review of the NECEC VIA."

Applicant's deficiencies in its evaluation of visual impacts are well documented in Mr. Palmer's peer review. For example, in his memo to Bill Hinkel regarding Summary of Problems and Discussions of Improvements, Mr. Palmer questions the accuracy of the land cover height information. He stated: "The accuracy of the viewshed analysis is important because it provides the initial identification of the viewpoints which are the basis of the VIA analysis and evaluation. An inaccurate viewshed analysis leads to a poor understanding of the project's visibility." This fatal flaw in the initial analysis was never corrected. As Mr. Palmer stated in his supplemental report: "The question remains, why does the VIA not use the most accurate available land cover height information?"

Further in his Supplemental report, Mr. Palmer points to a range of scenic resources that were not fully considered. Among them were the following:

- Public roads visited in part for the enjoyment of visual qualities.
- Properties within the study area that are eligible for inclusion in the National Register of Historic Places.

⁷ November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.15.

⁵ November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p. 15.

⁶ Id.

⁸ August 24, 2018 Memorandum to Bill Hinkel from James Palmer, p. 1.

⁹ November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.15.

• Properties that take advantage of Maine's Open Space Tax Law offers property tax reductions in return for public access to private conservation lands; lands that would be visible in part for the enjoyment of visual qualities.¹⁰

Among those scenic resource types, Mr. Palmer further elaborated on and discussed: clusters of properties, cemeteries, and public land that are visited in part for the enjoyment of visual qualities.

Mr. Palmer enumerated several examples including:

Several locations where clusters of properties eligible for inclusion in the National Register of Historic Places appear to have potential for visual impacts: along the west side of Moxie Pond, and the villages of Bingham, Solon, North Anson, Anson, Madison, Farmington... There are 222 cemeteries within 3 miles of the NECEC centerline, of these 47 appear to be in the landcover viewshed.... Attachment K: Conservation Area Charts indicate that the BPL owned West Forks Parcel and Johnson Mountain Parcel are not scenic resources because they are managed primarily for timber and not visual resources. However, it is not necessary for the primary objectives to include resource management – it is whether the general public visits them in part for enjoyment of their visual qualities.¹¹

Aside from the flawed methodology which failed to capture all of the scenic resources, this calls into question whether the Applicant truly appreciates what Maine's scenic resources are. As Mr. Palmer stated:

How many other public resources or public lands have been eliminated from consideration because they were 'not managed for preservation of Visual Resources?'... These are examples, not an exhaustive listing. The question remains – why is there not a full accounting of potential scenic resources and a documented evaluation of all those with potential visibility? There does not even appear to be a process to attempt a full accounting."¹²

In addition to missing scores of scenic resources, Mr. Palmer also faults Mr. DeWan's methodology employed in completing the DEP's Basic Visual Impact Assessment Form in the evaluation of visual impacts on the meager 37 viewpoints (as Mr. Palmer pointed out, some of which represent the same scenic resource) that were evaluated. Mr. Palmer sites Mr. DeWan's use of

¹⁰ November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.16.

[.] 11 Id.

¹² November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.17.

only two raters. He stated: "The use of only two raters clearly does not approach the standard recommended by the research that established the contrast rating approach to VIA." ¹³

Even if the Applicant sufficiently identified the potentially impacted scenic resources, and even if the methodology of assessing those that were identified was not fatally flawed, the Applicant compounded these failings with a too-little-too-late attempt to identify whether people's use and enjoyment of the resources would be impacted. Again, Mr. Palmer's peer review assessed the intercept study. Again, he found the methodology flawed:

It would be misleading to generalize from finding about the effect of seeing wind turbines on the fishing experience of people at Baskahegan Lake in order to explain the effect of seeing a large transmission line while on a Kennebec River rafting trip. There is simply no data to suggest that either study could shed light on the effect to people appreciating the view of a historic site, hiking on a trail, or driving along a road chosen in part for the enjoyment of is scenic quality.¹⁴

Flawed data in the making of the survey means the results are unreliable and therefore the conclusions drawn are meaningless. The Applicant's efforts to fill the gaping holes in their application fall well short of the required legal standard: that the activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses pursuant to 38 M.R.S. § 480-D(1).

Inadequate identification of scenic resources, flawed methodology, and failure to identify impacts result in only one possible conclusion: Applicant failed to meet its burden. Thus, the Applicant cannot show that the project will not unreasonably interfere with the scenic character of the area pursuant to 06-096 C.M.R. 375 (14). The Application should simply be denied.

¹³ November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.18.

¹⁴ November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.11.

2. Applicant Failed to Demonstrate that the Project Would Not Unreasonably Interfere with Existing Scenic, Aesthetic and Recreational Uses.

Applicant must establish that the proposed project would not unreasonably interfere with Maine's recreational uses – uses that are integrally related to Maine's scenic and natural wildlife habitat. If not for the nexus between recreational uses and Maine's natural environment, the Legislature would not have included a demand that a utility project such as this be assessed for not only impacts on recreational uses, but affirmatively find that the project *will not* unreasonably interfere with those recreational activities. The Applicant has failed to do that. The record demonstrates the proposed project would undermine Maine's unique brand of outdoor-based, recreational tourism and superior scenic beauty. That, perhaps, is why the vast majority of registered Maine voters oppose the project at least in part because of unreasonable interference with existing uses.¹⁵

Whether year-round or seasonal residents, tourists, first-time visitors or generational, Maine's western mountains beckon for hiking, snowmobile travel, and hunting amidst the seemingly wild and remote natural landscape. Rafting or fishing in the cold mountain streams and rivers, home to the "last true stronghold for brook trout in the United States," are the existing uses with which this project will unreasonably interfere. No buffering can protect flying fishing on a Great Pond or Lake, or hiking a mountain trail or the AT, or rafting a clear water river.

The Applicant does not adequately address the impact to existing uses. CMP ignores the very components that make Maine's western mountains and rivers so special. As Justin Preisendorfer stated on Hearing Day 3:

"Maine has our country's largest contiguous block of undeveloped forestland east of the Mississippi and that undeveloped landscape is essential to Maine's brand. Roughly 36.7 million tourists visited Maine in 2017 and the primary reason when surveyed was beautiful scenery. They leave development behind to enjoy the undeveloped

¹⁵ Pre-filed Testimony of Elizabeth Caruso, CRTK 3.

¹⁶ Tr. 04/02/19, AM, Testimony of Sue Ely, p. 41, lines 6-7.

landscapes Maine has to offer. The postcards they send home do not contain images of utility corridors. Nature-based tourism and outdoor recreation is affected by scenic impacts."¹⁷

Group 2 Intervenors and witnesses made clear what the existing uses are in the 53.5 miles of non-existing transmission corridor. As Justin Preisendorfer stated in his pre-file testimony:

The transmission corridors and lines required by the NECEC project would negatively impact scenic integrity from a wide range of vantage points. The proposal states that only six conservation parcels are crossed but the reality is that the impacts are far wider when you consider views beyond the foreground. Those who live in Maine or come to visit don't care about scenic qualities just when they're on conserved lands. Maine has more than 20 million acres of land and the forests of Maine are predominantly privately owned. The most recent Maine State Comprehensive Outdoor Recreation Plan (SCORP) survey indicates that over 50% of each sample group (resident recreationists, nonresident recreationists, and general resident sample) have visited private lands for recreation in the last two years. Many of the private lands that are impacted by the NECEC proposal have high recreation value where the scenic integrity is central to the experience. A scar on the landscape looks the same regardless of who owns the land you stand on.¹⁸

Using the terminology of the statute, "existing uses" belies the significance of what "existing uses" means in the 53.5 miles of segment one of the proposed corridor. The testimony of Intervenors and the public comment of many people from this area tell a far more personally impactful tale:

The West Forks is in the epicenter of the proposed 145-mile corridor and the first organized community on the 53-miles of proposed new construction of the corridor. Residents consider the West Forks to be the 'doorstep to the North Woods,' where outdoor recreation and tourism is their lifeline. The West Forks has seen over 100,000 people a year recreate on their two class A Rivers - the Kennebec River Gorge and the Dead River - for whitewater boating, commercial and private rafting as well as canoeing, kayaking and fishing.

In the winter, the greater Forks area is also a major destination for snowmobiling, because of destinations that include Grand Falls, Coburn Mountain and a central trail grid leading out in all directions. This region of western Maine is considered one of the most scenic and well maintained anywhere in the state. It is also the central "Hub" of Old Canada Road National Scenic Byway where hundreds of thousands of tourists travel between Quebec, the Maine coast, and other southern locations.

8

¹⁷ Tr. 04/04/19, AM, Testimony of Justin Preisendorfer, p. 57, lines 6-23.

¹⁸ Pre-filed Testimony of Justin Preisendorfer, p. 7, lines 9-21.

This area attracts not only visitors, but also residents and camp owners who make this place their homes and second homes. Just to the north, the Boundary Mountains and the North Woods, are one of the last places on the east coast of the U.S. that have been safe from "hard commercial sprawl" and it should stay that way.¹⁹

Single voices and those speaking on behalf of others are equally prevalent in these proceedings and are all consistent in the real and personal impacts this project would have on their lives by affecting the existing uses. For example, Elizabeth Caruso speaking in these proceedings on behalf of the Town of Caratunk:

The Town of Caratunk has grave concerns with regards to many facets of the NECEC proposal. As a democratic government, our voters (residents) expect the town to defend and represent their welfare. Most year-round residents derive their income in the tourism industry as independent guides or by working for the recreational outfitters, lodges, cabins and restaurants, area gas stations, etc. A few of these residents are intervenors in this proceeding, and many have submitted sworn testimonies and public comments against the project. Other residents work as carpenters, roofers, woodsmen, and handymen catering to the needs of the area's landowners, both year-round and seasonal. However, most of Caratunk's landowners are from out-of-state and own vacation homes and camps along Pleasant Pond and the Kennebec River. Caratunk residents will not only be impacted financially through their livelihoods from which they derive income to support families, but also in their ways-of-life. All residents chose homes and vacation homes or camps in Caratunk for the area's peace and beauty in surroundings and also for the recreational opportunities provided by the local mountains, ponds, lakes, rivers, streams, etc. NECEC will invade the beautiful and valuable view shed which they enjoy but which also provides financial worth. NECEC will assault the nature's silence and the nighttime darkness from their decks and during year-round recreation activities.²⁰

Moreover, while analyzed separately, forest fragmentation and loss of wildlife habitat are integrally related to existing uses. As Ron Joseph stated in Hearing Day 4: "The continued loss of our remaining deer yards is a significant economic impact on traditional Maine sporting lodges in rural communities that depend on income from deer hunters."²¹

The record is laced with examples of how this project will interfere with existing uses. Once done it cannot be undone and the harm cannot be buffered. How do you shield a snowmobile trail

¹⁹ May 17, 2019, Public Comment, Sandra Howard, p. 3

²⁰ Pre-file Testimony, Elizabeth Caruso, p. 3 lines 6-21.

²¹ TR. 04/04/19, AM, Testimony of Ron Joseph, , p.25, lines 3-7.

rider from experiencing the altered viewshed that would now include a transmission line corridor with permanent steel poles where once a wooded landscape existed? How do you "buffer" a rafter's experience that came for the natural landscape along the Kennebec but came away with visions of industrial structures related to the transmission line even if undergrounded across the Gorge? Or how do you "buffer" the impacts on the cold-water habitat that is now gone and with it the unique brook trout that brings anglers from all over the country? You cannot. The interference with the existing uses is incapable of mitigation. There is no buffering that would allow these uses to co-exist in the 53.5 miles of new territory.

3. The Applicant Failed to Show that the Project Will Not Unreasonably Harm any Significant Wildlife Habitat, Travel Corridor or Freshwater Fisheries.²²

The Applicant's own witnesses admitted that they did not look at the direct and irreparable adverse effects along the first 53.5 miles where they would be cutting a new swath through forested habitat. Instead, they considered the project as a whole to justify damaging Maine's "rivers and streams, great ponds, fragile mountain areas, freshwater wetland [and] significant wildlife habitat..."

The Applicant erroneously believes that analysis of the project as a whole justifies extreme impacts to pristine areas because of existing development in other areas, like Lewiston.

"Our job is to permit a project and take the impacts as a whole. You can't just focus on one portion of the project over another. So we try to minimize impacts in total and by co-locating we're able to minimize impact in total..."

In other words, in CMP's estimation, co-locating and expanding a corridor in already impacted and adversely affected regions of Maine makes it okay to permanently damage the natural landscape for close to 1/3 of the project route. If the Applicant had accurately assessed the impact to the first section of the proposed route, it would have been clear that the

²² 38 MRSA 480-D(3).

²³ 38 M.R.S. § 480-A.

²⁴ Tr. 04/01/19, Testimony of Mark Goodwin, p. 92, 19-23.

negative impacts are so significant that any purported benefit in other sections cannot make up for the damage that would be done.

The Applicant argues that a new 150' wide by 53.5 mile clear cut of forest would have a negligible forest fragmentation effect. They posit that because this area is bisected by commercial logging activity, the installation of permanent²⁵ industrial structures and clear cutting with a permanently maintained cleared corridor will not unreasonably harm significant wildlife habitat. This is simply not supported by the record. The qualified wildlife biologists put forward by the Intervenors say otherwise. Loss of wildlife habitat and permanent forest fragmentation *will* unreasonably harm significant wildlife habitat.

The Applicant's position is clearly not shared by every single qualified forester and wildlife expert who testified in opposition to this project as the following small sampling from the record illustrates, first with respect to forest fragmentation:

- "The slippery slope in fragmentation is that one on top of another feeds into cumulative fragmentation and associated cumulative impacts and I think that is going to be maximized by this power line and not minimized as CMP seems to insist concerning scenery and habitat."²⁶
- "This project would create a permanently non-forested 150 foot wide corridor across the entire region, one of the largest fragmenting features in this mostly undeveloped landscape."²⁷
- "So in terms of just forest fragmentation from timber harvesting practices, that's the mix of what exists currently in the landscape. Added into that factor... the existing, or the newer base of permanent gravel logging roads, some are wide like the Spencer Road out on the front end and some over there in Lowelltown, they're pretty narrow.... so those narrow ones are going to have less fragmenting impact, but in terms of landscape vegetation change, I factor that into impacts that begin to accumulate. You put the Central Maine Power line through there and that is permanent and radically different.... when you look at where that power line comes down across the landscape, you can see how... the power line cuts right

²⁵ Mr. Thorn Dickinson testified on Hearing Day 1 that this should not be considered a "permanent" installation. However, under cross, he admitted that there is no decommissioning plan or cost allocation included in the plan for removal of the structures or restoration of the land at any point in the future. It must therefore be considered a permanent installation.

²⁶ Tr. 04/03/19, Testimony of Roger Merchant, p. 66, lines 20-25.

²⁷ Tr. 04/04/19, AM, Testimony of David Publicover, p.12, lines 18-22.

through that... splits that chunk of deeper continuous forest in half. That's fragmentation on top of fragmentation."²⁸

- "The Applicant's assessment of forest fragmentation is rudimentary and lacking in any analysis of impacts. It consists primarily of general statements that are contradicted by the literature and unsupported by any evidence in the application. Statements to the effect of some species will benefit while others will not are followed by a discussion of the habitat benefits of utility corridors while avoiding any discussion of which species are adversely affected. In the end, the Applicant's argument amounts to little more than this landscape is already trashed and this is just another clearcut so there will be no impact."²⁹
- "In short, when we consider the long-term, cumulative nature of fragmentation impacts, the forest of western Maine may already be stressed by forestry roads and the addition of the NECEC could, while not the 'straw that breaks the camel's back', still be a log that significantly weakens the camel." ³⁰

The clear importance of forest fragmentation speaks directly to the viability of wildlife species and their habitat. The Applicant failed to identify not only impacted habitat but species as well. The following illustrates those species and habitat impacts:

- "There are numerous examples of the detrimental effects of forest conversions and fragmentation in and around deer yards. The Chub Pond deer yard, a few miles south of Whipple Pond where the transmission line would pass, has undergone numerous timber harvests within and adjacent to the deer yard... [W]e do know that the deer yard no longer supports wintering deer. The Mud Pond deer yard in Parkman serves as a stark reminder of their critical importance. Timber harvest within and adjacent to the Mud Pond deer yard during the winter of 1979-80 killed between 90 and 100 deer according to the Maine Warden Service. Surrounded by deep snows and clearcuts the stranded deer died of starvation. My point in mentioning these is to stress that the loss of deer wintering areas and the fragmentation and the loss of habitat connectivity between deer wintering areas and the surrounding forest land are the major limiting factors for deer populations in northern, western and eastern Maine. CMP's proposed project further contributes to deer yard degradation and fragmentation.³¹
- "The Applicant does not acknowledge that there are critical regional ecological values that will be impacted by this project. The Applicant does not demonstrate an understanding of basic conservation biology principals such as how permanently dividing large forest blocks into smaller ones or changing their shape can negatively impact forest wildlife species because of edge effects."

²⁸ Tr. 04/03/19, Testimony of Roger Merchant, p. 116, line 9 through p. 117, line 17.

²⁹ Tr. 04/04/19, AM, Testimony of David Publicover, p. 14, line 19 through p. 15, line 6.

³⁰ Pre-Filed Testimony, p. 8, Group 6, Malcolm Hunter.

³¹ Tr. 04/04/19, AM, Testimony of Ron Joseph, p. 24, line 5 through p. 25, line 3.

³² Tr. 04/05/19, Testimony of Janet McMahon, p. 11, lines 4-9.

- "[I]t's a cumulative process that happens over time, but a big feature like this is going to have a major impact. It's just -- it's a big feature and it's going to fragment a number of forest blocks, which is not addressed at all in their application... We can't even gauge what the overall impact is from the application because it's going to break so many other forest blocks into smaller ones. And also going over mountainous terrains, the mountain is -- the mountains are the most resilient part of the state because that's where there is more room for species to move up or down or to northern slopes as I mentioned, so putting it through a mountainous area on average elevations of 2,000 or 3,000 feet is problematic."³³
- "In all 11 deer yards where CMP plans to clear trees they are proposing to revegetate disturbed soils with a wildlife seed mix. CMP failed to recognize that its wildlife seed mix will be buried in open areas beneath 3 to 4 feet of snow during Maine's long winters and thus provide no benefit to deer. In the summer when CMP's seed mix will be available to deer natural food is not a limiting factor. CMP downplays the deer yard impacts in sections of its proposed corridor that it widens claiming that, quote, corridor construction will only widen the existing non-forested transmission line corridors and conclude by saying that, quote, it will not significantly affect habitat functional attributes of the deer intersected by the project and that after construction deer yards, quote, will function similarly to the way they currently do. This claim is simply preposterous. We know from the University of Maine research and my own deer yard work that loss of deer yard and loss of connectivity between deer yards and surrounding habitat are detrimental to deer survival. Wide non-forested strips in deer yards are barriers to deer and the additional width of 75 feet would make them an even greater barrier. Deer can't walk or bound through deep snows without burning precious fat reserves needed to survive until snow depths decrease in April." "34"
- "[I]t's important to remember that when we talk about marten we're not just talking about one species. Marten is one of the two primary umbrella species in the north Maine woods as determined by extensive research at the University of Maine and it is the umbrella species for mature forest habitat.... So when we talk about marten we're not just talking about one species, we're talking about the whole suite of species that share the same habitat needs." 35
- "The scale and cumulative impact of the habitat fragmentation caused by Segment 1 of the proposed NECEC corridor could potentially 'adversely affect wildlife and fisheries lifecycles' for many years into the future."
- "Maine's western forest is unique in the eastern United States for its concentration of wellconnected and climate-resilient wildlife habitat. The Conservancy is concerned about the potential of NECEC Segment 1 to contribute to new and unprecedented fragmentation of this connected and resilient landscape."³⁷

³³ Tr. 04/05/19, Testimony of Janet McMahon, p. 40, line 23 through p. 41, line 13.

³⁴ Tr. 04/04/19, AM, Testimony of Ron Joseph, p. 28, line 1 through p. 29, line 3.

³⁵ Tr. 04/04/19, AM, Testimony of David Publicover, p. 161, line 3-13.

³⁶ Pre-file Testimony, p. 2, Group 6, Rob Wood, Energy Policy and Projects Advisor, Andy Cutko, Director of Science, and Bryan Emerson, Mitigation Program Manager, for The Nature Conservancy in Maine.

³⁷ Pre-file Testimony, p. 3, Group 6, Rob Wood, Energy Policy and Projects Advisor, Andy Cutko, Director of Science, and Bryan Emerson, Mitigation Program Manager, for The Nature Conservancy in Maine.

- "Segment 1 of the proposed NECEC corridor would create a new linear fragmenting feature in what is currently a large, mostly unfragmented forest block.... this new fragmentation will have unpredictable implications for the health and viability of wildlife and plant species over time, and that such implications could be significant." 38
- "The impacts of fragmentation have been widely evaluated in the scientific literature, and there are at least hundreds, probably thousands, of peer reviewed publications on this topic. In short, it is widely recognized that fragmentation is one of the leading causes of biodiversity decline across the globe, but its role is context-dependent.... In multiple parts of its application, CMP argues that in a working landscape such as this, the additional impacts from a powerline corridor are inconsequential. However, it is important to recognize that with the exception of major haul roads, clearing from forest management is temporary, and even industrial forest management requires forests to grow back to maturity before they are harvested again. The results of forest management across the western Maine landscape create a patchwork of age classes that shift over time. Although these shifts are more frequent, and the patches larger, than would occur in a totally natural forest setting (i.e., under a regime of natural disturbance such as windstorm and insect damage), because of the largely intact and connected landscape, over time Maine's wildlife are able to move among these patches. In contrast to these temporary and shifting impacts of forest management, the proposed NECEC corridor would be a permanent fragmenting feature, much like the few major forest roads in the region."39
- "Forest loss associated with a transmission line and associated construction roads is amplified by the edge effects that extend the corridor's impact far into the adjacent forest. At the global scale, forest edges influence more than half of the world's forests and contribute to worldwide declines in biodiversity and ecosystem functions.5 These changes occur as a result of differences in light and wind exposure at forest edges, associated changes in plant community composition and structure (e.g., forest vs. shrub), introductions of invasive species, and changes in predator/prey relationships. Segment 1 of the NECEC will create more than 100 linear miles of permanent new edge habitat in Segment 1 alone.⁴⁰
- "It is not possible to build a new energy infrastructure project of this size without unreasonable adverse impacts to wildlife, the project is simply too big. The Applicant does not acknowledge that there are critical regional ecological values that will be impacted by this project. The Applicant does not demonstrate an understanding of basic conservation biology principals such as how permanently dividing large forest blocks into smaller ones or changing their shape can negatively impact forest wildlife species because of edge effects. 41
- The proposed transmission corridor would pass through the heart of western Maine mountains. This region is ecologically significant for many reasons. It is the largest and least fragmented area of tempered forests remaining in North America and some studies suggest the world. The combination of mountainous terrain, high landscape diversity and contiguous

³⁸ Pre-file Testimony, p. 4, Group 6, Rob Wood, Energy Policy and Projects Advisor, Andy Cutko, Director of Science, and Bryan Emerson, Mitigation Program Manager, for The Nature Conservancy in Maine.

³⁹ Pre-Filed Testimony, p. 3, Group 6, Malcolm Hunter.

⁴⁰ Pre-Filed Testimony, p. 4, Group 6, Malcolm Hunter.

⁴¹ Tr. 04/05/18, Testimony of Janet McMahon, p.10, line 23 through p. 11, line 9.

forest land make the region ecologically significant or ecologically resilient in the face of climate change. It is a globally important bird area. It is the last stronghold for brook trout in the eastern United States. It is a source area for marten, lynx and other forest species. It is the key ecological link between forests in the eastern U.S. and Canada."⁴² "[T]he proposed CMP project will likely impact hundreds more functioning pools than the regulatory or legislative definitions alone would indicate. The project will have both direct and indirect effects on pools... It will also harm the ecological webs of pool and post-breeding habitats through fragmentation of forests associated with the pools."⁴³

- "[T]he effects of a clear-cut ROW through existing vernal pools, adjacent vernal pools, and travel routes to and from breeding pools will result in impacts ranging from devastation for some individual vernal pools to greatly compromised habitat for others. The literature is clear that some amphibians will make their way through inhospitable cover but that many will avoid the journey or perish along the way."
- "What we do know is that populations along the corridor will be compromised, some lost, and some severely degraded. We know that significant numbers of animals will be directly impacted through operations. We know that we should avoid all such impacts when feasible. We know that climate change related warming and altered precipitation patterns stress amphibian populations already. The proposed ROW will be a significant further stressor." 45
- "[V]ernal pools... we shouldn't be looking at them as discreet single wetlands that are primarily habitat for pool-breeding amphibians, but they have a large number of other ecosystem functions, hydrologic, biogeochemical support of non-breeding wildlife... they should be assessed as a network of wetlands that are integrated into the forested ecosystem, so the greater the distances between vernal pools from losses, all of these things have effect on the ecology of vernal pools in forests in wetlands."
- "The region through which the proposed NECEC project will be completed is the heart of the largest reservoir of intact aquatic habitat in the Northeast. This habitat supports populations of native brook trout that have been identified as the "last true stronghold for brook trout in the United States." The proposed new corridor would substantially fragment this habitat, with multiple stream crossings that impact brook trout habitat, and the creation of a new corridor that could be a vector for increased human use and introduction of invasive species. The Applicant's assessment of these resources and impacts is inadequate, does not contain a specific analysis of impacts to brook trout habitat, and assumes the impacts of the new permanent corridor will be identical to the impacts of past and present forest management."

⁴² Tr. 04/05/19, Testimony of Janet McMahon, p. 10, line 23 through p.11, line 9.

⁴³ Pre-file Testimony, p. 8, Group 4, Aram Calhoun.

⁴⁴ Pre-file Testimony, p. 13, Group 4, Aram Calhoun.

⁴⁵ Pre-file Testimony, p. 14, Group 4, Aram Calhoun.

⁴⁶ Tr. 05/09/19, Testimony of Aram Calhoun, p. 38, lines 5-15.

⁴⁷ Pre-file Testimony, p. 6, Group 4, Jeff Reardon.

In sum, while the above is a lengthy list of citations from the record, it only scratches the surface of the wealth of information provided throughout the six days of hearings and submissions into the record that illustrate: 1) the Applicant failed to meet its burden to show the project would not unreasonably harm any significant wildlife habitat, travel corridor or fresh water fisheries, and 2) harm to these precious resources will occur if the project is approved even with the grossly inadequate mitigation measures such as vegetation tapering.

It is clear that CMP failed to assess, and now fails to acknowledge, the extensive harm its proposed transmission corridor will engender to Maine's western mountains and streams. So perhaps it is not surprising that Applicant's mitigation and compensation plan is also woefully inadequate.

38 MRSA 480-D(3) sets out mitigation measures that the Department *may* consider "in determining whether there is unreasonable harm to significant wildlife habitat... aquatic or adjacent upland habitat, travel corridor, [or] freshwater." Those measures include: "Avoiding an impact altogether by not taking a certain action or parts of an action; Minimizing an impact by limiting the magnitude, duration or location of an activity or by controlling the timing of an activity; Rectifying an impact by repairing, rehabilitating or restoring the affected environment; Reducing or eliminating an impact over time through preservation and maintenance operations during the life of the project; or, Compensating for an impact by replacing the affected significant wildlife habitat." CMP has failed to adequately utilize any of these mitigation measures as Dr. Hunter succinctly stated in his prefile testimony:

"The NECEC corridor would be one of the largest fragmenting features in the region, and as previously noted, there really is no comparable precedent for assessing the impacts to wildlife connectivity. CMP has made adjustments to its original compensation plan to accommodate for corridor impacts to white-tailed deer (particularly wintering habitat) and a few selected rare species (roaring brook mayfly and northern spring salamander). While deer have been identified in this process because of their regulatory standing, there are approximately 800 species of vertebrate wildlife in Maine and thousands of species of invertebrates, and many hundreds of species are present in the region affected by this

corridor. Although habitat fragmentation affects different species in different ways, it is clear that many other species would be affected in addition to deer. These include birds such as scarlet tanager and black-throated blue warbler, mammals including pine marten and Canada lynx, amphibians such as spotted salamander and wood frog, and reptiles such as the wood turtle. The proposed mitigation and compensation plan does not adequately address the cumulative impacts to the full array of Maine's wildlife."⁴⁸

The Applicant addresses seemingly an incomplete and random list of species in its proposed mitigation after failing to adequately identify actual species and wildlife habitat impacts. Given that the Applicant failed to first adequately assess the potential harm to the wildlife habitat and fisheries within the first 53.5 miles of the proposed corridor, and second used a scattershot approach in attempts to now mitigate the unreasonable harm, only reinforces the fact that this project was ill conceived at inception and woefully inadequately planned. The Application for a Certificate of Site Location should be denied.

II. The Applicant Failed to Show by Substantial Evidence that there is No Alternative Site Which is Both Suitable to the Proposed Use and Reasonably Available to the Applicant.

The Applicant failed to do an Alternatives Analysis until the hearing process began. ⁴⁹ Rather than assess alternatives which would not unreasonably impact the protected natural resources, as required by Maine law, CMP simply took a route it had identified for another possible project and repurposed it into a package for delivery of Hydro-Quebec power to meet the MASS RFP. Only after being challenged on what, if any alternatives CMP considered, did they do even a cursory review of possible burial of the line. ⁵⁰ However, even with the benefit of seeing suggestions for alternatives, the Applicant has failed to show by substantial evidence that there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant for the 53.5 mile segment including portions of the Project within a P-RR subdistrict.

⁴⁸ Pre-file testimony, p. 8, Group 6, Malcolm Hunter.

⁴⁹ Tr. 04/01/2019, Testimony of Thorn Dickinson, p. 248, line 7- 15.

⁵⁰ Tr. 04/01/19, Testimony of Mark Goodwin, p. 276, line 7 through 277, line 5.

On Hearing Day 2 it became clear how deficient the Applicant's consideration was of the alternatives as the following colloquy illustrates:

MS. TOURANGEAU: Part of your work for CMP on the project was to assess the environmental impact associated with the project and the relative impacts associated with available alternatives. BRIAN BERUBE: That was part of it, yes.

MS. TOURANGEAU: Thank you. Did that work include assessment of the underground alternative?

BRIAN BERUBE: My work did not include assessment of the underground alternative.

MS. TOURANGEAU: Did you assess the alternative of undergrounding the Joe's Hole Troutdale Road Appalachian Trail crossing?

BRIAN BERUBE: No.

MS. TOURANGEAU: Did you assess the alternative of undergrounding the portion of the project

near Beattie Pond?

BRIAN BERUBE: No.⁵¹

The lack of alternative analysis was pointed out in Garnett Robinson's pre-file testimony as well.:

[T]he applicant in Section 2.3.2 of the application, transmission alternatives, does not list burying the line in the 53.5 mile new section of the corridor. CMP rejected this alternative with a simple statement that burying the cable costs four to ten times more than aboveground costs, but it is not supported by any documentation or analysis... Without a thorough analysis of costs to bury, and likewise an analysis of projected revenue over the life of the project, there is no way for the Applicant to demonstrate that the alternative of burying, which would largely mitigate impacts to views and fire hazards associated by aboveground lines is unreasonable or not preferable.⁵²

Throughout the proceedings, the Applicant's constant refrain was that burial, or for that matter any alternative, was cost prohibitive. It would make the project not viable.⁵³ However, such a claim is completely unsubstantiated even with the supplemental information the Applicant finally provided after the April hearing dates as Mr. Garnett Robinson explained in his sur-rebuttal testimony:

CMP has not provided Maine DEP/LUPC in their permit application, testimony, exhibits or record, the information required to establish that burying is not reasonable. CMP has, as part of their rebuttal, now provided estimated costs for burying the entire line, the 54-mile new corridor section and other smaller sections but has not provided actual contract prices and power purchase agreements, i.e., financial data that is needed to determine whether burying is reasonable or practicable. CMP is offering hundreds of millions of dollars in both short-

⁵¹ Tr. 04/02/19, Testimony of Brian Berube, p. 171, line 18 through 172, line 9.

⁵² Pre-filed Testimony of Garnett Robinson, p. 8.

⁵³ Tr. 05/09/19, Testimony of Thorn Dickinson, p. 371, line 2 through p. 372, line 5.

and long-term mitigation, as well as for advertising and lobbying but is not providing information needed to make the analysis.⁵⁴

Mr. Robinson also accurately points out that the Applicant's cost analysis is not whether the expense of burying the line is viable in the context of anything other than whether or not CMP would have won the Massachusetts RFP:

They are now trying to persuade the Maine DEP/LUPC that burial is not feasible, practicable or reasonable because of where they might have been in the bidding process had they considered all options alternatives including burial. The exhibits in the evaluators report and Exhibit CMP-1.1-B are useless for the Maine DEP/LUPC to use in determining reasonableness, practicableness or feasibility of undergrounding the 54-mile section new corridor since it only looks at whether they might of have been chosen with these additional costs being borne by Massachusetts ratepayers in a bid process, not whether it is a reasonable or practicable alternative that CMP should have considered as required in DEP Reg 310.5 (A) or should be required in any permits issued by the DEP/LUPC.⁵⁵

As Mr. Robinson testified, whether or not CMP would have been selected as the second choice in the Massachusetts RFP is not relevant to the Department's or the Commission's consideration.

Finally, when asked about other transmission line projects (NorthernPass in New Hampshire and New England Clean Power Link in VT) with significant portions of those routes buried, the Applicant's responses were both inaccurate about those projects and again lacking sufficient data to be credible. ⁵⁶ Credible testimony however was provided for the Department and Commission's consideration on behalf of Group 8. ⁵⁷ For example, witness Chris Russo's prefile testimony and hearing testimony illustrated the viability of an underground alternative. As he stated:

The facts set forth in this testimony highlight the viability of an underground route for NECEC for the first 53 miles from the Forks to the Canadian border, particularly in the context of other proposed New England HVDC transmission lines. Furthermore, CMP, by its own admission, failed to even evaluate the underground option. Therefore, CMP has not

⁵⁵ Tr. 05/09/19, Testimony of Garnett Robinson, p 57, lines 6-16.

⁵⁴ Sur-rebuttal Testimony of Garnett Robinson, p. 4-5.

⁵⁶ Tr. 04/01/19, Testimony of Thorn Dickinson, p. 120, line 8 through p. 125, line 19; Tr. 05/09/19, Testimony of Justin Bardwell, p. 473, lines 11-25.

⁵⁷ Tr. 04/04/19, AM, Testimony of Chris Russo, p. 168, line 13 through p. 174, line 24; Pre-filed Testimony of Chris Russo.

conducted the requisite studies and analysis to show that NECEC avoids unreasonable interference with scenic character, existing scenic, aesthetic, recreational or navigational uses, and unreasonable impacts to protected natural resources.⁵⁸

The Applicant should have, but did not, assess alternative underground routes when it designed this project route. The Applicant should have, but did not, consider underground alternatives to the first 53.5 mile segment after assessing the adverse impacts to the scenic resources and wildlife habitat and fisheries. The Applicant's failure to conduct an alternative analysis that seriously considered avoiding the now evident damaging effects of this proposed route should be the final blow to this poorly designed project. The Applicant has not met its burden and the Department and Commission should deny the Application.

LUPC HEARING TOPICS AND RELATED LEGAL CRITERIA

III The Applicant Failed to Prove that the Proposed Use can be Buffered from the Existing Uses and Resources within the Subdistricts with Which it is Incompatible.

Applicant must establish that the proposed project would not unreasonably interfere with Maine's recreational uses – uses that are integrally related to Maine's scenic and natural wildlife habitat. If not for the nexus between recreational uses and Maine's natural environment, the Legislature would not have included a demand that a utility project such as this be assessed for not only impacts on recreational uses, but affirmatively find that the project *will not* unreasonably interfere with those recreational activities. The Applicant has failed to do that. The record demonstrates that the proposed project would undermine Maine's unique brand of outdoor-based, recreational tourism and superior scenic beauty. That, perhaps, is why the vast majority of registered

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⁵⁸ Pre-filed Testimony of Chris Russo, p. 5.

Maine voters oppose the project at least in part because of unreasonable interference with existing uses.

Whether year-round or seasonal residents, tourists, first-time visitors or generational, Maine's western mountains beckon for hiking on the AT, snowmobile travel, and hunting amidst the seemingly wild and remote natural landscape. Rafting or fishing in the cold mountain streams and rivers, home to the "last true stronghold for brook trout in the United States," are the existing uses with which this project will unreasonably interfere. No buffering can protect flying fishing on a Great Pond or Lake, or hiking a mountain trail or the AT, or rafting a clear water river.

The Applicant does not adequately address the impact to existing uses. CMP ignores the very components that make Maine's western mountains and rivers so special. As Justin Preisendorfer stated on Hearing Day 3:

"Maine has our country's largest contiguous block of undeveloped forestland east of the Mississippi and that undeveloped landscape is essential to Maine's brand. Roughly 36.7 million tourists visited Maine in 2017 and the primary reason when surveyed was beautiful scenery. They leave development behind to enjoy the undeveloped landscapes Maine has to offer. The postcards they send home do not contain images of utility corridors. Nature-based tourism and outdoor recreation is affected by scenic impacts."

Group 2 and 10 Intervenors and witnesses made clear what the existing uses are in the 53.5 miles of non-existing transmission corridor. As Justin Preisendorfer stated in his pre-file testimony:

The transmission corridors and lines required by the NECEC project would negatively impact scenic integrity from a wide range of vantage points. The proposal states that only six conservation parcels are crossed but the reality is that the impacts are far wider when you consider views beyond the foreground. Those who live in Maine or come to visit don't care about scenic qualities just when they're on conserved lands. Maine has more than 20 million acres of land and the forests of Maine are predominantly privately owned. The most recent Maine State Comprehensive Outdoor Recreation Plan (SCORP) survey indicates that over 50% of each sample group (resident recreationists, nonresident recreationists, and general resident sample) have visited private lands for recreation in the last two years. Many of the private lands that are impacted by the NECEC proposal have high recreation value where the scenic

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⁵⁹ Tr. 04/02/19, AM, Testimony of Sue Ely, p. 41, lines 6-7.

⁶⁰ Tr. 04/04/19, AM, Testimony of Justin Preisendorfer, p. 57, lines 6-23.

integrity is central to the experience. A scar on the landscape looks the same regardless of who owns the land you stand on.⁶¹

Using the terminology of the statute, "existing uses" belies the significance of what "existing uses" means in the Subdistricts of the proposed corridor. The testimony of Intervenors and the public comment of many people from this area tell a far more personally impactful tale:

The West Forks is in the epicenter of the proposed 145-mile corridor and the first organized community on the 53-miles of proposed new construction of the corridor. Residents consider the West Forks to be the 'doorstep to the North Woods,' where outdoor recreation and tourism is their lifeline. The West Forks has seen over 100,000 people a year recreate on their two class A Rivers - the Kennebec River Gorge and the Dead River - for whitewater boating, commercial and private rafting as well as canoeing, kayaking and fishing.

In the winter, the greater Forks area is also a major destination for snowmobiling, because of destinations that include Grand Falls, Coburn Mountain and a central trail grid leading out in all directions. This region of western Maine is considered one of the most scenic and well maintained anywhere in the state. It is also the central "Hub" of Old Canada Road National Scenic Byway where hundreds of thousands of tourists travel between Quebec, the Maine coast, and other southern locations.

This area attracts not only visitors, but also residents and camp owners who make this place their homes and second homes. Just to the north, the Boundary Mountains and the North Woods, are one of the last places on the east coast of the U.S. that have been safe from "hard commercial sprawl" and it should stay that way. 62

Single voices and those speaking on behalf of others are equally prevalent in these proceedings and are all consistent in the real and personal impacts this project would have on their lives by affecting the existing uses. For example, Elizabeth Caruso speaking in these proceedings on behalf of the Town of Caratunk:

The Town of Caratunk has grave concerns with regards to many facets of the NECEC proposal. As a democratic government, our voters (residents) expect the town to defend and represent their welfare. Most year-round residents derive their income in the tourism industry as independent guides or by working for the recreational outfitters, lodges, cabins and restaurants, area gas stations, etc. A few of these residents are intervenors in this proceeding, and many have submitted sworn testimonies and public comments against the project. Other residents work as carpenters, roofers, woodsmen, and handymen catering to the needs of the area's landowners, both year-round and seasonal. However, most of Caratunk's

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⁶¹ Pre-filed Testimony of Justin Preisendorfer, p. 7, lines 9-21.

⁶² May 17, 2019, Public Comment, Sandra Howard, p. 3

landowners are from out-of-state and own vacation homes and camps along Pleasant Pond and the Kennebec River. Caratunk residents will not only be impacted financially through their livelihoods from which they derive income to support families, but also in their ways-of-life. All residents chose homes and vacation homes or camps in Caratunk for the area's peace and beauty in surroundings and also for the recreational opportunities provided by the local mountains, ponds, lakes, rivers, streams, etc. NECEC will invade the beautiful and valuable view shed which they enjoy but which also provides financial worth. NECEC will assault the nature's silence and the nighttime darkness from their decks and during year-round recreation activities. 63

Moreover, while analyzed separately, forest fragmentation and loss of wildlife habitat are integrally related to existing uses. As Ron Joseph stated in Hearing Day 4: "The continued loss of our remaining deer yards is a significant economic impact on traditional Maine sporting lodges in rural communities that depend on income from deer hunters."

The record is laced with examples of how this project will interfere with existing uses. Once done it cannot be undone and the harm cannot be buffered. How do you shield a snowmobile trail rider from experiencing the altered viewshed that would now include a transmission line corridor with permanent steel poles where once a wooded landscape existed? How do you "buffer" a rafter's experience that came for the natural landscape along the Kennebec but came away with visions of industrial structures related to the transmission line even if undergrounded across the Gorge? Or how do you "buffer" the impacts on the cold-water habitat that is now gone and with it the unique brook trout that brings anglers from all over the country? You cannot. The interference with the existing uses is incapable of mitigation. There is no buffering that would allow these uses to co-exist in the 53.5 miles of new territory.

IV The Applicant Failed to Show by Substantial Evidence that there is No Alternative Site Which is Both Suitable to the Proposed Use and Reasonably Available to the Applicant.

⁶³ Pre-file Testimony, Elizabeth Caruso, p. 3 lines 6-21.

⁶⁴ TR. 04/04/19, AM, Testimony of Ron Joseph, , p.25, lines 3-7.

The Applicant failed to do an Alternatives Analysis until the hearing process began.⁶⁵ Rather than assess alternatives which would not unreasonably impact the protected natural resources, as required by Maine law, CMP simply took a route it had identified for another possible project and repurposed it into a package for delivery of Hydro-Quebec power to meet the MASS RFP. Only after being challenged on what, if any alternatives CMP considered, did they do even a cursory review of possible burial of the line.⁶⁶ However, even with the benefit of seeing suggestions for alternatives, the Applicant has failed to show by substantial evidence that there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant for the 53.5 mile segment including portions of the Project within a P-RR subdistrict.

On Hearing Day 2 it became clear how deficient the Applicant's consideration was of the alternatives as the following colloquy illustrates:

MS. TOURANGEAU: Part of your work for CMP on the project was to assess the environmental impact associated with the project and the relative impacts associated with available alternatives. BRIAN BERUBE: That was part of it, yes.

MS. TOURANGEAU: Thank you. Did that work include assessment of the underground alternative?

BRIAN BERUBE: My work did not include assessment of the underground alternative.

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BRIAN BERUBE: No.

MS. TOURANGEAU: Did you assess the alternative of undergrounding the portion of the project near Beattie Pond?

BRIAN BERUBE: No.67

The lack of alternative analysis was pointed out in pre-file testimony as well.:

[T]he applicant in Section 2.3.2 of the application, transmission alternatives, does not list burying the line in the 53.5 mile new section of the corridor. CMP rejected this alternative with a simple statement that burying the cable costs four to ten times more than aboveground costs, but it is not supported by any documentation or analysis... Without a thorough analysis of costs to bury, and likewise an analysis of projected revenue over the life of the project, there is no way for the Applicant to demonstrate that the alternative of

⁶⁵ Tr. 04/01/2019, Testimony of Thorn Dickinson, p. 248, line 7-15.

⁶⁶ Tr. 04/01/19, Testimony of Mark Goodwin, p. 276, line 7 through 277, line 5.

⁶⁷ Tr. 04/02/19, Testimony of Brian Berube, p. 171, line 18 through 172, line 9.

burying, which would largely mitigate impacts to views and fire hazards associated by aboveground lines is unreasonable or not preferable.⁶⁸

Throughout the proceedings, the Applicant's constant refrain was that burial, or for that matter any alternative, was cost prohibitive. It would make the project not viable. ⁶⁹ However, such a claim is completely unsubstantiated even with the supplemental information the Applicant finally provided after the April hearing dates as Mr. Garnett Robinson explained in his sur-rebuttal testimony:

CMP has not provided Maine DEP/LUPC in their permit application, testimony, exhibits or record, the information required to establish that burying is not reasonable. CMP has, as part of their rebuttal, now provided estimated costs for burying the entire line, the 54-mile new corridor section and other smaller sections but has not provided actual contract prices and power purchase agreements, i.e., financial data that is needed to determine whether burying is reasonable or practicable. CMP is offering hundreds of millions of dollars in both shortand long-term mitigation, as well as for advertising and lobbying but is not providing information needed to make the analysis.⁷⁰

Mr. Robinson also accurately points out that the Applicant's cost analysis is not whether the expense of burying the line is viable in the context of anything other than whether or not CMP would have won the Massachusetts RFP:

They are now trying to persuade the Maine DEP/LUPC that burial is not feasible, practicable or reasonable because of where they might have been in the bidding process had they considered all options alternatives including burial. The exhibits in the evaluators report and Exhibit CMP-1.1-B are useless for the Maine DEP/LUPC to use in determining reasonableness, practicableness or feasibility of undergrounding the 54-mile section new corridor since it only looks at whether they might of have been chosen with these additional costs being borne by Massachusetts ratepayers in a bid process, not whether it is a reasonable or practicable alternative that CMP should have considered as required in DEP Reg 310.5 (A) or should be required in any permits issued by the DEP/LUPC.⁷¹

⁶⁸ Pre-filed Testimony of Garnett Robinson, p. 8.

⁶⁹ Tr. 05/09/19, Testimony of Thorn Dickinson, p. 371, line 2 through p. 372, line 5.

⁷⁰ Sur-rebuttal Testimony of Garnett Robinson, p. 4-5.

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As Mr. Robinson testified, whether or not CMP would have been selected as the second choice in the Massachusetts RFP is not relevant to the Department's or the Commission's consideration.

Finally, when asked about other transmission line projects (NorthernPass in New Hampshire and New England Clean Power Link in VT) with significant portions of those routes buried, the Applicant's responses were both inaccurate about those projects and again lacking sufficient data to be credible. Credible testimony however was provided for the Department's and Commission's consideration on behalf of Group 8.73 For example, witness Chris Russo's prefile testimony and hearing testimony illustrated the viability of an underground alternative. As he stated:

The facts set forth in this testimony highlight the viability of an underground route for NECEC for the first 53 miles from the Forks to the Canadian border, particularly in the context of other proposed New England HVDC transmission lines. Furthermore, CMP, by its own admission, failed to even evaluate the underground option. Therefore, CMP has not conducted the requisite studies and analysis to show that NECEC avoids unreasonable interference with scenic character, existing scenic, aesthetic, recreational or navigational uses, and unreasonable impacts to protected natural resources.⁷⁴

The Applicant should have, but did not, assess alternative underground routes when it designed this project route. The Applicant should have, but did not, consider underground alternatives to the first 53.5 mile segment after assessing the adverse impacts to the scenic resources and wildlife habitat and fisheries. The Applicant's failure to conduct an alternative analysis that seriously considered avoiding the now evident damaging effects of this proposed route should be the final blow to this poorly designed project. The Applicant has not met its burden and the Department and Commission should deny the Application.

CONCLUSION

⁷² Tr. 04/01/19, Testimony of Thorn Dickinson, p. 120, line 8 through p. 125, line 19; Tr. 05/09/19, Testimony of Justin Bardwell, p. 473, lines 11-25.

⁷³ Tr. 04/04/19, AM, Testimony of Chris Russo, p. 168, line 13 through p. 174, line 24; Pre-filed Testimony of Chris Russo.

⁷⁴ Pre-filed Testimony of Chris Russo, p. 5.

The Applicant failed to meet is burden. The unreasonable adverse effects to Maine's wildlife habitat and fisheries cannot be adequately mitigated. There is not set of conditions that could possibly address all of the unreasonable adverse effects and undue interference identified above without materially changing the project to something different than what Applicant proposed, or without impermissibly deflecting the Department's and Land Use Planning Commission's responsibility to measure adverse effects and undue interference based on the record at the close of the hearing. While it is possible to envision an underground proposal satisfying the required criteria and avoiding nearly all of the adverse effects and undue interference this proposed project would cause, it is clear that alternative is not part of the application. Neither the Department nor the Commission could, on the evidence Applicant has presented, confidently assess the consequences of such a burial.

Denial is the only way to avoid the permanent scarring of Maine's western mountains and rivers with a proposed project that would bring virtually no benefit to Maine in return for its enormous cost to current and future generations of Mainers.

Respectfully Submitted, Intervenor Group 2 and Intervenor Group 10 By their attorneys,

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Dated: June 14, 2019

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APPENDIX A DRAFT PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

Forest Fragmentation:

<u>Finding</u>: The Western Maine region is the heart of a globally significant forest region that is notable for this relatively natural forest composition, lack of permanent development and high level of ecological connectivity. Tr. 04/01/19, p. 40, line 13-18 (Ely).

<u>Finding</u>: The proposed new corridor would be one of the largest permanent fragmenting features bisecting this region and would have an unreasonable adverse effect on wildlife habitat, wildlife life cycles and travel corridors. Tr. 04/01/19, p. 40, lines 18-22 (Ely).

<u>Finding</u>: Forest habitat will be lost through the construction of the project. Tr. 04/01/19, p. 167, line 1-2 (Goodwin).

<u>Finding:</u> CMP's proposed project does not contain buffer strips of sufficient area to provide wildlife with travel corridors between areas of available habitat, will adversely affect wildlife and fisheries lifecycles, and will result in unreasonable disturbance of deer wintering areas, significant vernal pools, waterfowl and wading bird habitat, and species declared threatened or endangered. (Pre-filed Testimony, Elizabeth Caruso, p. 14).

<u>Finding:</u> CMP's proposed project will not adequately utilize natural buffer strips to protect water quality, wildlife habitat, and visual impacts from the proposed transmission line. (Pre-filed Testimony, Elizabeth Caruso, p. 23).

<u>Finding</u>: It is widely recognized in peer-reviewed scientific literature that fragmentation is one of the leading causes of biodiversity decline across the globe, but its role is context-dependent. Group 6, Malcom Hunter, Pre-filed Testimony, p. 3.

<u>Finding</u>: With the exception of major haul roads, clearing from forest management is temporary, and even industrial forest management requires forests to grow back to maturity before they are harvested again. Group 6, Malcom Hunter, Pre-filed Testimony, p. 3.

<u>Finding</u>: Forest management activities across Western Maine creates a patchwork of age classes that shift over time. Over time, wildlife are able to move among these patches. In contrast to these temporary and shifting impacts of forest management, CMP's proposed project corridor would be a permanent fragmenting feature. Group 6, Malcom Hunter, Pre-filed Testimony, p. 3.

<u>Finding</u>: Forest fragmentation will also have direct and indirect effects on vernal pools and the ecological webs they support. Group 4 A. Calhoun, Pre-filed Testimony. p.8.

<u>Finding:</u> CMP's proposed project would create a permanently non-forested 150 foot wide corridor across the entire region, one of the largest fragmenting features in this mostly undeveloped landscape." Tr. 04/04/19, AM, p. 12, lines 18-22 (Publicover).

<u>Finding</u>: The continued loss and degradation of intact forests is one of the major threats to biodiversity worldwide and the effects of fragmentation on forests have been well documented. Tr. 04/04/19, AM, p. 12, lines 18-22 (Publicover).

<u>Finding:</u> Fragmentation has multiple adverse effects on forests in addition to the direct loss of habitat, the most significant include edge effects and the barriers to species movement. Tr. 04/04/19, AM, p. 12, lines 18-22 (Publicover).

<u>Finding</u>: The edge created by the proposed project corridor will be distinct and permanent and the linear configuration maximizes the amount of edge that's compared to a more compact shape. Tr. 04/04/19, AM, p. 14, line 1-4 (Publicover).

<u>Finding</u>: Forest loss associated with a transmission line and associated construction roads is amplified by the edge effects that extend the corridor's impact far into the adjacent forest. Group 6, Malcolm Hunter, Pre-filed Testimony, p. 4.

<u>Finding</u>: Edge effects result from differences in light and wind exposure at forest edges, associated changes in plant community composition and structure, introductions of invasive species, and changes in predator/prey relationships. Group 6, Malcolm Hunter, Pre-filed Testimony, p. 4.

<u>Finding</u>: Segment 1 of the NECEC will create more than 100 linear miles of permanent new edge habitat in Segment 1 alone. Group 6, Malcolm Hunter, Pre-filed Testimony, p. 4.

<u>Finding</u>: Utility corridors also create barriers to species movement. The corridor will reduce the permeability of the landscape for species such as marten and many other species that require minimum levels of mature forest cover and avoid early successional habitat in non-forested openings. Tr. 04/04/19, AM, p. 14, lines 4-12 (Publicover).

Finding: Creating barriers to species movement divides populations into small subpopulations that are at higher risk of going extinct because of the increased inability to avoiding genetic inbreeding, avoiding a shortage of males or females in a given population, or responding to climate change. Tr. 04/05/19, p. 82 line 13 through p. 83, line 18 (Hunter).

<u>Finding</u>: CMP concludes that animals will adapt to scrub/shrub habitat of the corridor. Only animals that can utilize early successional habitat and fragmented landscapes will adapt. The animals that require mature forest habitat and sort of connected landscapes may not adapt as well. CMP provides no evidence that shows how species that are mature forest specialists will cross those corridors, how they will not be impacted by the corridor, and does not cite to any studies to that effect that show that corridors do not impact movement of mature forest species. Tr. 05/09/19, p. 85, line 13 through p. 86, line 11 (Publicover).

<u>Finding</u>: A "working forest" like in Western Maine can be wilderness with scenic qualities that provide economic opportunities and jobs for local residents and existing uses do not render this area unimportant or open to unfettered development. (Pre-filed Testimony, Elizabeth Caruso, p. 8).

<u>Finding</u>: Cutting industries that harvest wood allow the wood to grow back and be sustainably managed, unlike herbicides that would be applied in the proposed project corridor. Tr. 04/04/19, PM, p. 88, lines 7-11 (Walters).

<u>Finding</u>: There is a large difference in environmental impact between periodic logging of a working forest and the application of herbicide sprays to maintain a permanently open corridor for a transmission line. Tr. 04/04/19, PM, p. 94, lines 14-24 (Huish).

<u>Finding</u>: The corridor for the proposed project would add large-scale, permanent fragmentation on top of existing fragmentation in the area from roads and logging cuts that creates cumulative fragmentation with associated cumulative impacts. Tr. 04/03/19, p. 66, lines 20-25 (Merchant).

<u>Finding</u>: To avoid and minimize habitat fragmentation the most preferable method would be colocation with roads and undergrounding to the extent possible and that beyond that taller poles would best achieve avoidance and minimization of fragmentation. Tr. 05/09/19, p. 139, line 22 through p. 140, line 2 (Wood).

<u>Finding</u>: The CMP application does not include any assessment of fragmentation of forests through which the proposed project would pass. Tr. 04/04/19, AM, p. 82, line 19 through p. 83, line 7 (Publicover).

<u>Finding</u>: CMP's assessment of forest fragmentation is rudimentary and lacking in any analysis of impacts, as it consists primarily of general statements that are contradicted by the literature and unsupported by any evidence in the application. Tr. 04/04/19, AM, p. 14, lines 19-24 (Publicover).

<u>Finding</u>: CMP's assessment of these impacts is cursory, overly general, lacking in specific analysis and inappropriately conflates the impacts of the corridor with those of timber management. Tr. 04/01/19, Hearing Day 1, at 40, line 13 through p. 41, line 1 (Ely).

<u>Finding</u>: CMP has provided no information in the record as to where taller vegetation areas will be maintained after construction. Tr. 04/01/19, Hearing Day 1, at 187, lines 18-22 (Goodwin).

<u>Finding</u>: The region through which the proposed project will be completed is the heart of the largest reservoir of intact aquatic habitat in the Northeast. This habitat supports populations of native brook trout that have been identified as the last true stronghold for brook trout in the United States. Jeff Reardon Pre-filed testimony, at 6.

<u>Finding</u>: The proposed new corridor would substantially fragment brook trout habitat, with multiple stream crossings that impact brook trout habitat, and the creation of a new corridor that could be a vector for increased human use and introduction of invasive species. Jeff Reardon Pre-filed testimony, at 6.

<u>Finding</u>: The Applicant's assessment of these resources and impacts is inadequate, does not contain a specific analysis of impacts to brook trout habitat, and assumes the impacts of the new permanent corridor will be identical to the impacts of past and present forest management. Jeff Reardon Prefiled testimony, at 6.

Vernal Pools:

<u>Finding</u>: Vernal pools are not only discreet single wetlands that are primarily habitat for pool-breeding amphibians; they have a large number of other ecosystem functions, hydrologic, biogeochemical support of non-breeding wildlife. Tr. 05/09/19, p. 38, lines 5-10 (Calhoun)

<u>Finding</u>: Vernal pools should be assessed as a network of wetlands that are integrated into the forested ecosystem. As a result, increase of distances between vernal pools from losses effect the ecology of vernal pools in forests. Tr. 05/09/19, p. 38, lines 5-15. (Calhoun).

<u>Finding</u>: CMP's proposed project may adversely impact significant vernal pool habitat. Clear-cutting a right-of-way through existing vernal pools, adjacent to vernal pools, and through travel routes to and from breeding pools will result in impacts ranging from devastation for some individual vernal pools to greatly compromised habitat for others. The literature is clear that some amphibians will make their way through inhospitable cover but that many will avoid the journey or perish. Group 4 A. Calhoun, Pre-filed Testimony. p.13.

<u>Finding</u>: As a result of the proposed project, significant populations of animals along the corridor will be compromised, lost, or severely degraded. These populations of amphibians are already stressed by climate change related warming and altered precipitation patterns. The proposed ROW will be a significant further stressor. Group 4 A. Calhoun, Pre-filed Testimony. p.14.

<u>Finding</u>: CMP's proposed project may adversely impact significant vernal pool habitat. CMP's application indicates that there are at least 42 significant vernal pools and 23 potentially significant vernal pools wholly or partially located within the proposed action area. Group 4 A. Calhoun, Prefiled Testimony, p. 14.

<u>Finding</u>: CMP's proposed project clear cut would impact hundreds of vernal pools and important travel routes to and from these pools, resulting in impacts ranging from complete destruction of some vernal pools to greatly compromised habitat for others. Tr. 04/01/19, p. 41, lines13-21 (Ely).

Deer Habitat:

<u>Finding</u>: The project would dramatically impact deer wintering areas, a habitat type that is critical to help Maine deer survive Maine's long winters when food and shelter are critically limited. Tr. 04/01/19, p. 41, lines 18 -21 (Ely).

<u>Finding</u>: Deer yards are critical because they help deer conserve energy during Maine's long winters when food quality and abundance is limited. Tr. 04/04/19, AM, at 23, lines 21-24 (Joseph).

<u>Finding</u>: According to CMP's compensation plan submitted to DEP, the proposed transmission line would cross 22 deer yards. Of those, CMP's proposal would increase deer fragmentation in 11 deer yards by clearing multiple acres of trees. Tr. 04/04/19, AM, p. 23, line 25 through p. 24, line 4 (Joseph).

<u>Finding</u>: The loss of deer wintering areas and the fragmentation and the loss of habitat connectivity between deer wintering areas and the surrounding forest land are the major limiting factors for deer populations in northern, western and eastern Maine. Tr. 04/04/19, AM, p. 24, line 21 through 29, line 23 (Joseph).

<u>Finding</u>: CMP's proposed project further contributes to deer yard degradation and fragmentation. Tr. 04/04/19, AM, p. 25, line 2-3 (Joseph).

<u>Finding</u>: The continued loss of our remaining deer yards is a significant economic impact on traditional Maine sporting lodges in rural communities that depend on income from deer hunters. Tr. 04/04/19, AM, at 25, lines 3-7 (Joseph).

<u>Finding</u>: CMP's proposed mitigation to the impact to deer yards is inadequate. In all 11 deer yards where CMP plans to clear trees they are proposing to revegetate disturbed soils with a wildlife seed mix. CMP failed to recognize that its wildlife seed mix will be buried in open areas beneath 3 to 4 feet of snow during Maine's long winters and thus provide no benefit to deer. Tr. 04/04/19, AM, p. 28, lines 1-7 (Joseph).

American Marten:

<u>Finding</u>: CMP failed to include any discussion of the American Marten in its application or testimony by Mark Goodwin. Tr. 04/01/19, p. 160, line 3 through p. 160, line 12 (Goodwin).

<u>Finding</u>: American Marten is considered an "umbrella species" for mature forest habitat in Maine, indicating when the habitat needs of multiple other species are met. Tr. 04/01/19, p. 159, line 17 through 160, line 2 (Goodwin/Mirabile).

Finding: As an umbrella species, if a habit is supporting pine marten, then it is likely also supporting 70 percent of other vertebrae wildlife species. Tr. 04/03/19, p. 67, lines 14-17 (Merchant).

<u>Finding</u>: CMP provided no information or assessment of the habitat for American Marten along the proposed project or surrounding impacted areas where the deepest edge effect occurs. No assessment or field work was provided to evaluate the presence or lack of pine marten area of the proposed project. Tr. 04/03/19, Hearing Day 3, at 67, line 2-22 (Merchant).

<u>Finding</u>: For every 10 percent loss in habitat, approximately 20 to 25 percent of the American Marten population is lost. Tr. 05/09/19, p. 120, lines 7-11 (Simon-Legaard).

<u>Finding</u>: CMP failed to provide information about the current marten population and location of the home ranges that would be impacted, making it difficult to determine total impact on marten populations. Tr. 05/09/19, p. 120, lines 7-15 (Simon-Legaard).

<u>Finding</u>: Tapering of vegetation in the corridor for the proposed project in the 53 miles of new transmission line could reduce the negative impact of the transmission line on forest fragmentation generally, but could not solve all of the issues including negative impact on pine marten. Tr. 04/04/19, AM, p. 117, 16 through p. 118, line 7 (Publicover).

<u>Finding</u>: Opening the corridor to snowmobiling could have additional negative impacts on the pine marten, in part because coyotes and other generalist predators will have greater, quicker access to larger areas of pine marten habitat over the packed snow of the snowmobile trail. Tr. 04/04/19, AM, 158, line 6 through 159, line 18 (Publicover).

<u>Finding</u>: CMP also failed to provide information or testimony that addresses important breeding song bird species that rely on the habitat in Maine for key habitat in their annual north-south cycle. Tr. 04/03/19, p. 67, lines 3-8 (Merchant).

Failure to Analyze Existing Uses:

<u>Finding</u>: CMP failed to assess the area surrounding the new 53 miles of corridor for existing uses. (Pre-filed Testimony, Elizabeth Caruso, p. 19, lines 22-31); Tr. 04/02/19, p. 202, lines 16-18 (Elizabeth Caruso).

<u>Finding</u>: CMP failed to conduct any studies on the impacts of tourism in the area surrounding the new 53 miles of corridor. (Pre-filed Testimony, Elizabeth Caruso, p. 19, line 33 through p. 20, line 3).

Finding: CMP failed to consider the winter season tourism impacts of the proposed project. (Prefiled Testimony, Elizabeth Caruso, p. 5, line 19 through p. 6, line 2).

<u>Finding</u>: CMP failed to conduct any analysis of snowmobile recreation users within the area of the proposed corridor which would have provided critical information about the impact on tourism of the corridor in the winter months. (Pre-filed Testimony, Elizabeth Caruso, p. 20, lines 5-10).

<u>Finding</u>: CMP failed to meaningfully engage with local stakeholders regarding if, how, and how much the economy of the greater Forks area would be impacted by the corridor. (Pre-filed Testimony, Elizabeth Caruso).

Impact on Existing Uses:

<u>Finding</u>: The proposed project would cut through remote wilderness areas in the greater Forks area that local residents rely on for economic opportunity and jobs, including but not limited to guides, waitstaff, housekeepers, office staff, cooks, cashiers, gas attendants. (Pre-filed Testimony, Elizabeth Caruso, p. 5, line 18 through p. 6, line 4)

<u>Finding</u>: Maine's tourism appeal and brand relies on the country's largest contiguous block of undeveloped forestland east of the Mississippi. Tr. 04/03/19, p. 57, lines 6-9 (Preisendorfer).

<u>Finding</u>: Roughly 36.7 million tourists visited Maine in 2017 and the primary reason when surveyed was beautiful scenery. Tr. 04/04/19, p. 57, lines 9-11 (Preisendorfer).

<u>Finding</u>: Nature-based tourism and outdoor recreation is affected by scenic impacts. Tr. 04/04/19, p. 57, lines16-17 (Preisendorfer).

<u>Finding</u>: A 2018 special report on fishing commissioned by the Recreational Boating and Fishing Foundation and the Outdoor Foundation found that fishing participation grew by 1.9 million with fly fishing making up the biggest segment of that growth. Tr. 04/02/19, AM, p. 223, line 15 through 224, line 5 (Preisendorfer).

<u>Finding</u>: Beattie Pond is a fly fishing only pond and the scenic character and existing uses of Beattie Pond will be negatively affected, including the existing guided fishing industry. Tr. 04/02/, AM, p. 223, line 23 through 224, line 5 (Preisendorfer).

<u>Finding</u>: The continued loss of our remaining deer yards is a significant economic impact on traditional Maine sporting lodges in rural communities that depend on income from deer hunters. Tr. 04/04/19, AM, p. 25, lines 3-7 (Joseph).

<u>Finding</u>: CMP's proposed project will cross the Appalachian Trail, Old Canada Scenic Byway, Kennebec Gorge, Spencer Road, Cold Stream, and the Forks Area – Jackman Snowmobile Trail system. (Pre-filed Testimony, Elizabeth Caruso, p. 13, lines 7-9).

<u>Finding</u>: The proposed project would significantly degrade the remote undeveloped scenic character of the region and harm the experience of existing recreational users including hikers, boaters, paddlers and those who hunt and fish in these remote areas. Tr. 04/01/19, p. 40, lines 3-8(Ely).

<u>Finding</u>: The proposed project will also degrade the hiking experience for users of the Appalachian Trail. It would be the first crossing of the AT by a transmission line of this size anywhere in the state. Tr. 04/01/19, p. 40, lines 9-12 (Ely).

<u>Finding</u>: The proposed project corridor would negatively impact the Coburn Connector Trail and ITS 89, two popular snowmobiling destinations. (Pre-filed Testimony, Elizabeth Caruso, p. 5, lines 14-15).

<u>Finding</u>: The proposed project corridor will be a permanent visual scar on the base of Coburn Mountain that will be seen from over 12 miles away from any elevated area. Tr. 04/01/19, p. 52, 17-22 (Buzzell).

Visual Impact Assessment:

<u>Finding</u>: CMP has failed to show that the transmission lines and corridor can be buffered enough to not impact the wild and scenic landscape in Western Maine. (Pre-filed Testimony, Elizabeth Caruso, p. 4, lines 18-19).

<u>Finding</u>: Visual impact from the transmission lines and corridor is incompatible with existing outdoor recreation, tourism, and rural economy. (Pre-filed Testimony, Elizabeth Caruso, p. 4, line 20 through p. 5, line 10).

<u>Finding</u>: CMP's photo-simulation of the corridor in the Forks area was inadequate. (Pre-filed Testimony, Elizabeth Caruso, p. 5, lines 11-12).

<u>Finding</u>: CMP's photo-simulation selectively showed uninhabited and undesirable views along the proposed route instead of tourist destinations and desirable mountains, ponds, and natural landscapes. (Pre-filed Testimony, Elizabeth Caruso, p. 13, lines 14-15).

<u>Finding</u>: Further, the simulations offered by CMP do not represent the full range of existing uses and approaches to the viewsheds in four seasons from vantage points above and below the proposed project. Tr. 04/04/19, PM, p. 96, line 1 through p. 97, line 6 (McCarthy).

<u>Finding</u>: CMP's visual impact assessment contained an inaccuracy viewshed analysis and therefore inaccurate identification of viewpoints. November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.15.

<u>Finding</u>: An inaccurate viewshed analysis leads to a poor understanding of the project's visibility. November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.15.

<u>Finding</u>: CMP's visual impact assessment failed to include many scenic resources and took too narrow a view of scenic resources that should be analyzed. November 23, 2018, James F. Palmer, Review of the New England Clean Energy Connect October 2018 Supplemental Materials, p.15-16.

<u>Finding</u>: The visual simulations were largely limited to a single season from vantage points below the project, which minimize the extent to which the viewshed is impacted. Tr. 04/04/19, PM, p. 97, line 3-6 (McCarthy).

<u>Finding</u>: CMP's visual impact assessments failed to include the access routes to public water resources. Tr. 04/03/19, p. 96, lines 7-12 (Preisendorfer).

<u>Finding</u>: The Visual Impact Assessment was conducted with a land public data from 1991 to 2001. The 2017 data was available for most of the project area and was disregarded by the firm that conducted the VIA. Tr. 04/04/19, PM, p. 96, lines 6-10 (McCarthy).

<u>Finding</u>: CMP has not provided sufficient data to determine is proposed mitigation of the impact on viewsheds is acceptable. Tr. 04/04/19, PM, p. 96, lines 16-19 (McCarthy).

<u>Finding</u>: CMP witnesses stated under oath that none of them has ever seen a self-weathering steel monopole used in a project, so they cannot claim to understand what the proposed project would look like when complete. Tr. 04/04/19, PM, p. 96, lines 19-23 (McCarthy).

<u>Finding</u>: The Visual Impact Assessment failed to consider alternative materials, wire types, and tower designs for the length of the route. Tr. 05/09/19, p. 176, 12 through 177, 4 (DeWan/Segal); Tr. 05/09/19, p. 174, line 19 through 175, line 21 (DeWan); Tr. 05/09/19, pg. 166, lines 2-25 (DeWan).

<u>Finding</u>: No visual assessment has been done or study of what damage directional drilling will do to the surrounding area, Kennebec Gorge or the cold stream fisheries located just below the crossing. Tr. 04/01/19, Hearing Day 1, p. 52 lines 11-15 (Buzzell).

Local Infrastructure:

<u>Finding</u>: CMP provided no evidence related to local communities' emergency response capabilities. (Pre-filed Testimony, Elizabeth Caruso, p. 148).

<u>Finding</u>: Western Maine lacks the fire and emergency infrastructure necessary to support the construction and operation of a high-transmission power line. (Pre-filed Testimony, Elizabeth Caruso, p. 153-154).

<u>Finding</u>: Western Maine lacks fire and emergency medical care necessary to support a population of temporary construction workers. (Pre-filed Testimony, Elizabeth Caruso, p. 154-155).

<u>Finding</u>: Large areas of the greater Forks area relies on a single ambulance service out of Bingham, a small fire department in Jackman, and a small volunteer fire department at West Forks. (Pre-filed Testimony, Elizabeth Caruso, p. 1560).

Failure to Consider Alternatives:

<u>Finding</u>: At least three alternatives could have been utilized by CMP. (Pre-filed Testimony, Elizabeth Caruso, p. 6, lines 4-11).

<u>Finding</u>: An existing corridor runs from the Quebec border to Route 201 and is listed in the MOU with Western Mountains and Rivers Corporation. (Pre-filed Testimony, Elizabeth Caruso, p 6, lines 5-7).

<u>Finding</u>: CMP could have buried the transmission line along Route 201 in previously-disturbed areas. (Pre-filed Testimony, Elizabeth Caruso, p. 6, lines 8-9).

<u>Finding</u>: CMP could have buried the transmission line under pre-existing dirt roads. (Pre-filed Testimony, Elizabeth Caruso, p. 6, line 9).

<u>Finding</u>: CMP failed to consider full burial of the transmission line in previously-disturbed areas as an alternative to impacting the scenic character of the Forks area. (Pre-filed Testimony, Elizabeth Caruso, p. 6, lines 8-9); Tr. 04/02/19, AM, p. 202, line 16 through p. 203, line 9 (Elizabeth Caruso).

<u>Finding</u>: CMP failed to give any evidence that it realistically considered these alternatives or otherwise sought to find another alternate route. (Pre-filed Testimony, Elizabeth Caruso, p. 6, lines 33-34).

<u>Finding</u>: CMP failed to conduct any analysis regarding the alternative of full burial to avoid visual impacts, except for a 1000' section of line under the Kennebec River. (Pre-filed Testimony, Elizabeth Caruso); Tr. 04/02/19, AM, p. 202, line 23 through p. 203, line 2 (Elizabeth Caruso); Tr. 04/02/, AM, p. 223, lines 15-19 (Preisendorfer).

<u>Finding</u>: CMP has failed to demonstrate that there is not a practicable alternative to the proposed project that is less damaging to the natural environment such as burying the project underground or considering alternatives to reduce impacts on the unfragmented forest, brook trout habitat, vernal pools and deer wintering areas. Tr. 04/01/19, p. 41, lines 22 through p. 42, line 3(Ely).

<u>Finding</u>: Alternatives may exist for transmitting electricity from Quebec to Massachusetts that would not damage the State of Maine. Tr. 04/01/19, p. 51, lines 15-19 (Buzzell).

<u>Finding</u>: An alternative underground project has been permitted in the State of Vermont to transmit electricity to Massachusetts with no damage to Maine. Tr. 04/01/19, p. 51, lines 19-22 (Buzzell).

<u>Finding</u>: CMP chose not to pursue practical alternatives that would have avoided or greatly lessened the damage that would be caused by its own proposed project. Tr. 04/01/19, p. 51, lines 22-25 (Buzzell).

<u>Finding</u>: CMP failed to study or even consider burying the transmission line from Canada to The Forks. Tr. 04/01/19, p. 52, lines 1-2 (Buzzell).

<u>Finding</u>: A direct burial trenching within the proposed corridor either in short sections or for long distances is an inadequate solution of the issue of fragmentation as it would still require the clearing of a new corridor through this undeveloped forest region. Tr. 05/09/19, p. 61, lines 4-9 (Publicover).

<u>Finding</u>: Horizontal direct drilling may allow short portions of the line to remain forested but would still result in significant disturbance in the areas near the injection points and there would still be extensive sections of above-ground line with its associated corridor. Tr. 05/09/19, p. 62, lines 11-17 (Publicover).

<u>Finding</u>: CMP only considered the Kennebec River crossing when doing mitigation and compensation analysis, not including many other businesses affected by this project, analysis of regional jobs by type and economic impacts of any loss of revenues both long-term and during construction. Tr. 04/02/19, p. 54, 11- 17 (Robinson).

<u>Finding</u>: CMP has provided no compensation for the unavoidable or unmitigated impact that would result from this project. It compensated for impacts required by law, such as wetland impacts, but provided no compensation for the major landscape level impacts. Tr. 04/04/19, p. 15, lines 20-25 (Publicover).

<u>Finding</u>: The small amount of land proposed for conservation have no nexus to the fragmenting impacts created by the corridor and do not compensate for the reduction of the interior forest habitat or loss of connectivity created by the project. Tr. 04/04/19, p. 15, line 25 through 16, line 5 (Publicover).

Financial and Technical:

<u>Finding</u>: CMP failed to submit a decommissioning plan. Tr. 04/01/19, p. 134, lines 2-5 (Dickinson).

<u>Finding</u>: CMP failed to set up a decommissioning fund or include any financial assurances for decommissioning in its application. Tr. 04/01/19, p. 273, lines 15-16 (Dickinson).

<u>Finding</u>: CMP failed to provide documentation to support that burying the transmission line is not financially reasonable, or practical. Tr. 05/09/19, p. 58, lines 11-14 (Robinson).

<u>Finding</u>: CMP has also failed to provide its power purchase contracts and distribution contracts. Tr. 05/09/19, p. 94, lines 10-18 (Robinson).

<u>Finding</u>: CMP has not provided Maine DEP and LUPC in their permit application testimony, exhibits, or record, the information required to establish burying the HVDC line is not reasonable or practicable. Tr. 05/09/19, p. 58, line 11-22 (Robinson).

<u>Finding</u>: CMP provided estimated costs for burying the entire line, the 53 new mile corridor, and other smaller sections but has not provided actual financial data that is needed to determine whether burying is reasonable or practicable. Tr. 05/09/19, p. 58, line 11-22 (Robinson).

<u>Finding</u>: The proposed design of NECEC is unusual for not being undergrounded when the vast majority of the DC power lines in the world are undergrounded. Tr. 04/02/19, AM, p. 214, lines 20-23 (Russo).

CONCLUSIONS OF LAW

BASED on the above Findings of Fact, the Commissioner and the Board makes the following CONCLUSIONS pursuant to the General Permit, 38 M.R.S. §§ 480-A through 480-JJ and 484, and the applicable Department rules:

The Applicant has failed to provide adequate evidence of financial capacity and technical ability to develop the project in a manner consistent with state environmental standards.

The Applicant has failed to make adequate provisions for air quality, water quality, control of noise and other natural resources in the municipality or in neighboring municipalities.

The Applicant has failed to make adequate provision for fitting the development harmoniously into the existing natural environment and the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in surrounding area, pursuant to 38 M.R.S.A. § 484(3).

The Applicant has failed to sufficiently demonstrate that the Project will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses pursuant to 38 M.R.S. § 480-D(1).

The Applicant has failed to sufficiently demonstrate that the proposed project will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life pursuant to 38 M.R.S. § 480-D(3).

1. Scenic Character and Existing Uses

CMP has failed to demonstrate that the activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses pursuant to 38 M.R.S. § 480-D(1).

CMP has not made adequate provision for fitting the development harmoniously into the existing natural environment and that the development will not adversely affect existing uses, scenic character, air quality, water quality or other natural resources in the municipality or in neighboring municipalities pursuant to 38 M.R.S. § 484(3).

CMP failed to adequately consider vernal pool habitat pursuant to 38 M.R.S. § 484(3)(H).

In making a determination under this subsection regarding a development's effects on significant vernal pool habitat, the department shall apply the same standards applied to significant vernal pool habitat under rules adopted pursuant to the Natural Resources Protection Act.

CMP has failed to meet its burden to demonstrate that the proposed project will not have unreasonable adverse visual impacts, does not unreasonably interfere with existing scenic and aesthetic uses, and does not diminish the public enjoyment and appreciation of the qualities of a scenic resource pursuant to 06-096 C.M.R. 315(4).

CMP also has failed to meet its burden to demonstrate that any potential impacts have been minimized pursuant to 06-096 C.M.R. 315.

The proposed project will unreasonably impair the public's visual enjoyment and appreciation of the significant scenic resources in Western Maine.

The proposed project will unreasonably interfere with the existing rural, scenic, and wilderness character of the area surrounding the proposed corridor and unreasonably interfere with the expectations of the typical viewer visiting the area.

The proposed project is not compatible with the existing rural, wilderness surroundings and has an unreasonable adverse impact on the visual quality of the scenic resources of Western Maine

The scale of the proposed project is outsized to its specific location within the viewshed of the scenic resources of Western Maine and will dominates the whole landscape composition and dominate landform, water, or sky backdrop as viewed from the scenic, rural, wilderness resources of Western Maine.

The landscape of Western Maine is visited by large numbers who come from across the country or state and therefore has national or statewide significance.

The landscape of Western Maine is also a scenic resource enjoyed by local residents.

The landscape of Western Maine is of national, statewide, and local significance and CMP has failed to demonstrate that the proposed project will not unreasonably impact those scenic resources.

CMP has failed to demonstrate the proposed project will have no unreasonable effect on scenic character pursuant to 06-096 C.M.R. 375(14).

The proposed project will have an unreasonable adverse effect on the scenic character of the surrounding area.

CMP has failed to demonstrate that the design of the proposed project takes into account the scenic character of the surrounding area.

The proposed project is not in keeping with the surrounding scenic character will be located and CMP has failed to design and landscape it to minimize its visual impact to the fullest extent possible.

The proposed structures have not been designed and landscaped to minimize their visual impact on the surrounding area.

CMP has failed to demonstrate that the "use can be buffered from those other uses and resources within the subdistrict with which it is incompatible" pursuant to 01-672 C.M.R. 10.21(I)(3)(d).

2. Wildlife Habitat and Fisheries

CMP has failed to demonstrate that the proposed project will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, including pine marten and brook trout habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life, pursuant to 38 M.R.S. § 480-D(3) and DEP Rules 335 and 375 § 15.

CMP has failed to demonstrate that the proposed activity will not unreasonably harm significant wildlife habitat by causing increased habitat fragmentation.

The proposed project would degrade the significant wildlife habitat, disturb the subject wildlife, and affect the continued use of the significant wildlife habitat by the subject wildlife, either during or as a result of the activity.

Specifically, the proposed project would degrade the significant wildlife habitat of the pine marten, disturb the pine marten, and affect the continued use of the significant wildlife habitat by the pine marten.

The proposed project has unreasonable impact because there are practicable alternatives to the project that would be less damaging to the environment.

CMP has failed to minimize the alteration of the habitat and disturbance of subject wildlife to the minimum amount necessary by minimizing the size of the alteration, the duration of the activity, and its proximity to the significant wildlife habitat and subject wildlife.

The proposed project will have an unreasonable impact on protected natural resources or the subject wildlife because one or more of the standards of the NRPA at 38 M.R.S.A. §480-D will not be met.

CMP failed to submit evidence that affirmatively demonstrates that the activity will meet the standards of the NRPA and 06-096 C.M.R. 335.

CMP has failed to make adequate provision for the protection of wildlife and fisheries.

The proposed project does not establish buffer strips of sufficient area to provide travel lanes for wildlife between available habitat areas required by 06-096 C.M.R. 375.15 (B)(1).

The proposed project includes alterations to the landscape that will adversely affect wildlife and fisheries lifestyles, including brook trout and pine marten governed by 06-096 C.M.R. 375.15(B)(2).

The proposed project will cause unreasonable disturbances to habitat of the pine marten pursuant to 06-096 C.M.R. 375.15(B)(3)(b).

The proposed project will cause unreasonable disturbances to significant vernal pools pursuant to 06-096 C.M.R. 375.15(B)(3)(d).

CMP has failed to make adequate provision for buffer strips under 06-096 C.M.R. 375.9.

3. Alternatives Analysis

CMP has failed to show by substantial evidence that there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant for portions of the Project within a P-RR subdistrict.

The applicant must demonstrate that the proposed project would not unreasonably impact "protected natural resources," as defined by the Natural Resources Protection Act..., in light of practicable alternatives to the proposal that would be less damaging to the environment.

CMP has failed to demonstrate that the proposed project would not unreasonably impact protected natural resources under the Natural Resources Protection Act in light of practicable alternatives to the project that would be less damaging to the environment.

CMP has failed to provide information about less environmentally damaging practical alternatives to the proposed alteration as required under 06-096 CMR 310(9)(A).

CMP failed to show that the proposed project would not "have an unreasonable impact on the visual quality of a protected natural resources as viewed from a scenic resource even if the activity has no practicable alternative and the applicant has minimized the proposed alteration and its impacts as much as possible through mitigation" under 06-096 C.M.R. 315(9).

CMP failed to "submit evidence that affirmatively demonstrates that the activity will meet the standards of the NRPA and this chapter . . . " under 06-096 C.M.R. 335(5).

CMP failed to show by substantial evidence that "there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant" pursuant to 01-672 C.M.R. 10.21(I)(d).

4. Compensation and Mitigation

CMP failed to provide information sufficient to establish that proposed mitigation "does not diminish in the vicinity of the proposed activity the overall value of significant wildlife habitat and species utilization of the habitat and if there is no specific biological or physical feature unique to the habitat that would be adversely affected by the proposed activity" under 38 MRSA 480-D(3).