**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 |
| L-27625-26-A-N | ) | DEVELOPMENT ACT PERMIT AND |
| L-27625-TB-B-N | ) | NATURAL RESOURCES PROTECTION |
| L-27625-2C-C-N | ) | ACT PERMIT FOR THE NEW ENGLAND |
| L-27625-VP-D-N | ) | CLEAN ENERGY CONNECT |
| L-27625-IW-E-N | ) | |
| | ) | |
| CENTRAL MAINE POWER COMPANY | ) | |
| NEW ENGLAND CLEAN ENERGY CONNECT | ) | |
| SITE LAW CERTIFICATION SLC-9 | ) | |

**REBUTTAL TESTIMONY OF ROGER MERCHANT, ME LPF#727**
**OF PRE-FILE TESTIMONY OF GERRY MIRABILE (APPLICANT)**

**A. (Pg.5&6, b., i) Scenic Character and Buffering Visual Impacts**

CMP offers some options for minimizing visual impacts, including their willingness to run the power line under the Kennebec, a Class A river according to the state's 1982 Maine Rivers study.

I would argue that going under the Kennebec may reduce visual impacts, but it will not be impact-free with the presence of riverside cooling stations for the buried line. I'd also argue that any disruption, on - adjacent to - above or below, on any Class A river should be avoided and disallowed.

CMP provides attention to some, but not all of the scenic attributes and viewsheds in Segment 1 in the Upper Moose River Basin. Here is what is missing in the CMP view:

I would argue that CMP photo-simulations, mostly taken at lower elevations on moderately flat terrain, tend to minimize the visual impacts of the corridor **and** power line. Higher elevation observation points reveal a dramatically different picture of significant viewshed impacts as documented in my testimony (Merchant, Intervener Group 2).

I would argue that absent from the CMP scenic assessment are four high value viewshed points: 1.) Tumbledown Mountain that provides 360 degree views from the abandoned fire lookout, 2.) Greenlaw Cliffs on the west flank of Number 6 Mountain, 3.) the viewshed west of Coburn Mountain, 4.) last but not least, the highest value viewshed looking south from Sally Mountain... Likewise on GM-Page 6 where the "tapering" of corridor vegetation to reduce visual impact" is addressed, again, these four high value locations are notably absent.

(Field-based photographs of these four missing viewsheds are attached in Exhibit A.)

Field Note: In Segment 1, the section of proposed power line running east from the south flank of Moose Mtn. before it crosses the S. Branch Moose River, then easterly along the north slopes of Peaked and Tumbledown Mtn. through The Notch-Greenlaw Cliffs, and on just east of Rock Pond is a primitive, high value, wild and scenic section. Corridor clearing and power line towering will eliminate and obliterate this remarkable, high value section.

Alternative: Putting the power line underground along this section would protect in perpetuity, the wild and scenic value of this section. From a primitive outdoor and photographic perspective, it stands on equal ground and at par with the scenic value of the Kennebec Crossing. (RM)

This alternative would honor and bolster CMP's Conclusion **(Pg. 8, Par.3, iii)...** "CMP has made adequate provision for fitting the project harmoniously into the existing natural environment... the development will not adversely affect scenic character in the municipality or in neighboring municipalities... the activity will not unreasonably interfere with existing scenic and aesthetic uses.

**B. (Pg. 6, par. 5) Proposing riparian stream buffers to minimize visual impacts**

CMP states "Proposing riparian stream buffers adjacent to all perennial streams, adjacent to all cold-water fishery streams... [that] within these buffers stringent vegetation clearing and management restrictions, as well as herbicide application restrictions, apply."

I would argue that for a "headwaters" project of this extent and magnitude with intimate connections to cold-water streams in the landscape, and given growing public concerns

about water quality for fisheries as well as humans downstream, it is imperative that CMP provide DEP and the public with data about the "proposed" herbicides of choice in CMP's vegetation management plans, including research data on the short and long-term impacts these toxic chemicals will have on fisheries and people downstream.

Additionally, I am not a fisheries biologist but I am a fly fisherman. I remain concerned about the impact this warm, open corridor will have on water temperature sensitive Eastern Brook Trout in this headwaters fragmentation project.

**C. (Pg.11, iii) ... Habitat Fragmentation (Relevant to DEP Review)**

CMP speaks to siting the NECEC Project "to minimize habitat fragmentation." From my field-work and aerial photographic documentation over the summer of 2018 on Segment 1, between Quebec and Coburn, I foresee a much larger and more significant "multiple fragmentation pattern" emerging across this landscape as a result of NECEC. The key distinction here is that NECEC will introduce a third, cumulative layer of corridor fragmentation, into an already fragmented landscape.

I would argue that NECEC will add yet another layer of fragmentation upon the pre-existing patterns of temporary and permanent fragmentation, already embedded in the landscape. Aerial photographs documenting the power line path across the landscape (Merchant, Intervenor 2) reveal the forests and streams, and the extensive network of permanent gravel roads that will intersect with NECEC.

Janet McMahon's paper encapsulates this problem which seems minimally addressed in CMP's proposal. *"Fragmentation typically begins when people build roads into a natural landscape, then "perforate" the landscape further with associated development. This*

*typically leads to additional roads, energy infrastructure and land conversion, and, over time results in "patches" of habitat that are smaller and further apart (McMahon, Pg.6)*

McMahon's paper accurately describes what is already happening, and which will evolve into "multiple fragmentations" as a result of NECEC, all along Segment 1. Based upon my interpretation of aerial photography and review of literature, consider these three components of "multiple fragmentations" to be intimately connected to NECEC.

1. Forest fragmentation from harvests already occupies 40% of the landscape. This form of fragmentation is "transitional" and of less concern. Yet, the jury is still out on the longer-term impacts that forest fragmentation will have on species and habitat connectivity at the landscape and regional scale in a warming climate.
2. Permanent gravel roads to access timber are extensive all across Segment 1 and travel in all directions of the compass. Many of these open road corridors and yards are permanent features in the landscape. Forests do not grow back on most of these ROW's, so this second layer of more critical, permanent fragmentation should be of more concern in the NECEC Proposal.

Additionally, consider the amount of construction materials and equipment needed to haul into the farther reaches of Segment 1. Some pre-existing logging roads will be expanded in width, straightness and drainage, especially on the lesser-developed permanent roads west of The Notch and all the way to Quebec. Indeed, this will contribute to the overall permanent fragmentation effects.

3. NECEC is the third and largest layer of permanent fragmentation, 150 feet wide x 54 miles across the landscape. It's documented that the edge effect impacts from the open corridor will extend some 330 to 1000 feet deeper into the adjacent

woods, (Hunter, Pg.6, Par.1). This third and largest footprint in the "multiple fragmentation" series will significantly expand the base and basis of habitat impacts. The cumulative impact of all three footprints will be substantially larger than what CMP presents from their "minimized habitat fragmentation" position.

I argue that NECEC will create and contribute to significant "multiple fragmentations" across habitats and landscape, forever. Pre-existing, improved gravel logging roads are already contributing forest fragmentation effects. It is worth noting that the NECEC power line, the permanent network of gravel roads adjacent to the corridor, including those roads moving away from it, all will feed into cumulative impacts from "multiple fragmentations" of the landscape and habitats on Segment 1.

Malcolm Hunter's TNC testimony likewise concurs on the cumulative and long-term impacts of fragmentation, and the short-sightedness of the regulatory system.

- *"The regulatory framework often falls short in acknowledging cumulative impacts…most impact assessments neglect the long-term effects of transmission lines on biodiversity. (Pg.7,Par.2)… It is my contention that based on the evidence presented, CMP has not made adequate provisions for the protection of wildlife and fisheries."(Pg.8,Par.2&3)… "It is widely recognized that fragmentation is one of the leading causes of biodiversity decline across the globe (Pg.3,Par.1)…*

I argue this needs further investigation before permitting.

**D. Loss of Carbon Storage From Deforestation.**

In my CMP review I find no information about loss of carbon storage from deforestation of the ROW. While this is a small point in most minds, there is a larger dimension to

forest carbon storage loss in this whole HQ-CMP-NECEC Power System. The HQ power production part of the "Power System," includes the deforestation and annual carbon storage loss from a vast area of boreal-taiga forest east of James Bay. It's worth noting this area flooded from the HQ Project, is approximately 42% the size of the State of Massachusetts, customers for the HQ-CMP power.

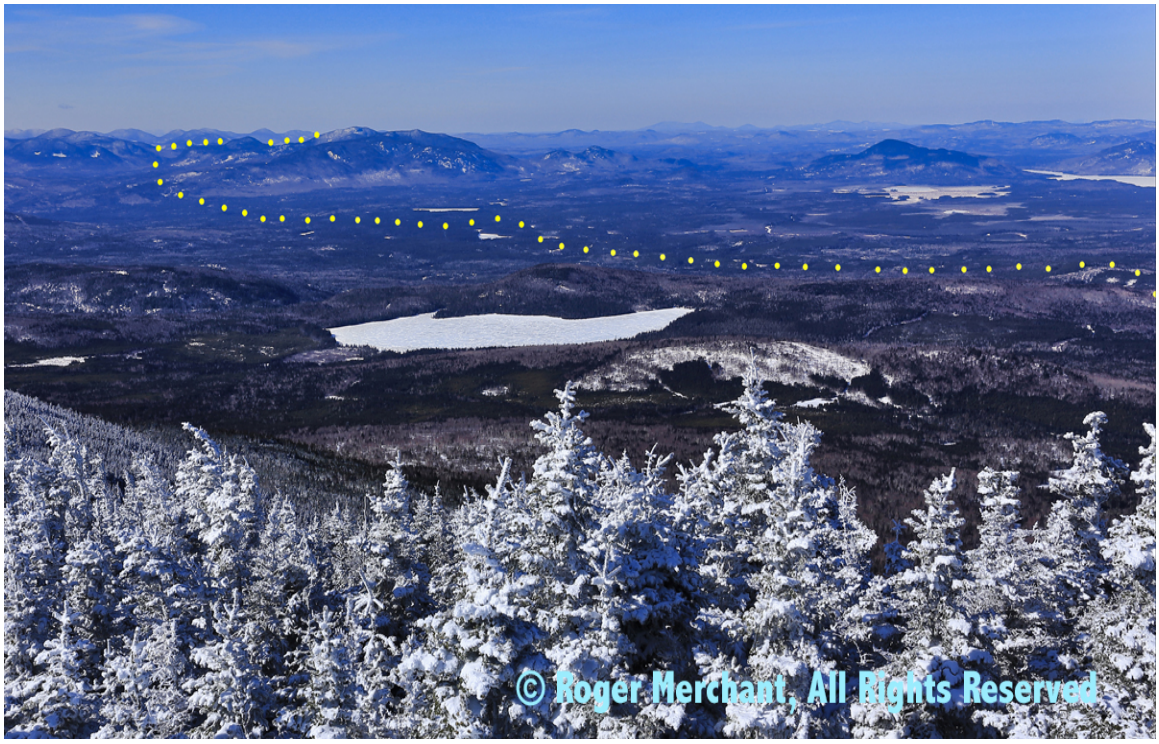
I argue that forest carbon loss at the HQ power source needs to be incorporated into the CMP proposal and review processes, and be evaluated for this project's contribution to global climate change. Because it is not addressed in the CMP proposal, and because carbon storage loss is also a key element in CO2 emissions, climate change and global warming this needs to be brought into public view and scrutiny, before any permitting.

**Exhibit A: Scenic Viewsheds Not Addressed by CMP**

1.) Tumbledown Mountain West with power line and corridor track in yellow...


2.) Greenlaw Cliffs from The Notch...

3.) Coburn Mountain West with power line and corridor track in yellow...




4.) Sally Mountain South viewshed with power line and corridor in yellow...

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Date: 3/14/2019

Respectfully submitted,

By: _____
Print Name: Roger Merchant

STATE OF Maine
COUNTY OF Penobscot

Personally appeared before me the above- named Roger Merchant, who being duly sworn, did testify that the testimony submitted in the above captioned proceeding was true and correct to the best of his knowledge and belief.

Before me,

_____
Notary Public/ Attorney at Law
My Commission expires 8/16/25

Mishael Romanelli
Notary Public, State of Maine
My Commission Expires August 16, 2025