



July 26, 2018

Mr. James R. Beyer
Regional Licensing and Compliance Manager
Eastern Maine Regional Office
Department of Environmental Protection
106 Hogan Road
Bangor, ME 04401

RE: NECEC Overhead Crossing of the Kennebec River

Dear Jim:

This letter responds with the additional information regarding alternatives to the preferred overhead crossing of the Kennebec River (Preferred Alternative) requested in your May 7, 2018 letter. We intend for this information to supplement the alternatives analysis and supporting information contained in our September 2017 Site Location of Development Act (Site Law) and Natural Resources Protection Act (NRPA) application materials. This information further demonstrates that the Preferred Alternative is reasonable and that there is no reasonable alternative to this proposed overhead crossing.

Applicable Standards

Pursuant to the standards set forth in Maine statute and DEP regulations, and summarized briefly below, the Preferred Alternative will not unreasonably interfere with existing scenic and aesthetic uses, or natural resources, and no reasonable alternative exists. Accordingly, it is the reasonable alternative.

1. No Unreasonable Adverse Impacts

The NRPA, 38 M.R.S. § 480-D(1), provides that the applicant must demonstrate that “[t]he activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses.” In making its determination as to whether adverse impacts to existing scenic and aesthetic uses are unreasonable, the DEP considers whether the applicant’s design is visually compatible with its surroundings, incorporating environmentally sensitive design principles and components according to planning and siting, design, and offset strategies. DEP Reg. 315.8. The DEP bases its determination of impact on the following visual elements of the landscape: landscape compatibility, scale contrast, and spatial dominance. DEP Reg. 315.9. As explained in the NRPA Application, and as supplemented below, the Preferred Alternative is sited and designed such that it will have no unreasonable adverse impact to, nor will it unreasonably interfere with, existing scenic, aesthetic, recreational, or navigational uses.

The Site Law, 38 M.R.S. § 484(3), further requires that the DEP approve a proposal where “[t]he developer has 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.” In making this determination, the DEP considers all relevant evidence, such as evidence that the design of the proposed development takes into account the scenic character of the surrounding area, that a development which is not in keeping with the surrounding scenic character will be located, designed, and landscaped to minimize its visual impact to the fullest extent possible, and that structures will be designed and landscaped to minimize their visual impact on the surrounding area. DEP Reg. 375.14(B). As explained in the NRPA Application and the Site Law Application, and as supplemented below, CMP has made adequate provision to fit the Preferred Alternative harmoniously into the existing natural environment, and has sited, designed, and landscaped (e.g., CMP proposed the retain existing vegetation in proximity to) this overhead crossing such that it will not adversely affect existing uses, scenic character, air quality, water quality, or other natural resources.

2. No Reasonable Alternative

The NRPA further governs proposed activities that cross any outstanding river segment as identified in section 480-P, and provides that “the applicant shall demonstrate that no reasonable alternative exists which would have less adverse effect upon the natural and recreational features of the river segment.” 38 M.R.S. § 480-D(8). As explained in the NRPA Application and the Site Law Application, and as supplemented below, no reasonable alternative exists to the Preferred Alternative that would have less adverse effect upon the natural and recreational features of the affected river segment.

The Preferred Alternative also is the least environmentally damaging practicable alternative pursuant to U.S. Army Corps of Engineers (USACE) review guidelines. 40 CFR § 230.10(a). *See also* 13 U.S.C. § 1344; CWA § 404(b)(1). Under these guidelines, practicable alternatives include, but are not limited to, activities that do not involve a discharge of dredged or fill material into the waters of the United States, and discharges of dredged or fill material at other locations in waters of the United States. 40 CFR § 230.10(a)(1). An alternative is practicable only if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. 40 CFR § 230.10(a)(2). Pursuant to these guidelines, the alternatives discussed below are not practicable.

3. LUPC Special Exception Criteria

Finally, your letter also notes that because the Preferred Alternative is within the Recreation Protection (P-RR) subdistrict it must meet the LUPC’s special exception criteria. *See* 38 M.R.S. § 489-A-1(2). Utility facilities are “allowed” uses in the P-RR subdistrict, by special exception, provided that: (a) there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant;¹ (b)

¹ In making its determination as to whether an alternative is “reasonably available,” the LUPC must consider the reasonableness of utilizing that alternative and not merely what is “available.” *See, e.g.,* Site Law Certification SLC

the use can be buffered from those other uses and resources within the subdistrict with which it is incompatible; and (c) such other conditions are met that the LUPC may reasonably impose. LUPC Reg. 10.23(l)(3)(d)(8). *See also* LUPC Reg. 10.23(l)(3)(f) (“All uses not expressly allowed, with or without a permit or by special exception, shall be prohibited in P-RR subdistricts.”).

Because the DEP’s Site Law and NRPA review of the Project will consider all applicable standards that the LUPC would otherwise consider in granting a special exception,² no special exception review is required by LUPC.³ As demonstrated in the Site Law and NRPA applications, as well as below, there is no alternative site that is both suitable to the proposed use and reasonably available to CMP, and the Preferred Alternative can and will be adequately buffered from other uses and resources within the subdistrict. *See* Site Law Application Section 25.

The Preferred Alternative will not have unreasonable adverse impacts.

1. The Preferred Alternative location is not unique and the associated recreational experience is not pristine.

As an initial matter, and although the location of the Preferred Alternative overhead crossing of the Kennebec River has on occasion been referred to (including by CMP) as being at the “Gorge,” the location of the Preferred Alternative is not actually part of the “Gorge” itself. This is relevant because the proposed overhead crossing of the Kennebec River is at a point that is not as unique as the Gorge itself, which must be considered when evaluating the reasonableness of the Preferred Alternative.

According to American Whitewater, for example, the Gorge extends for 3.5 miles from Harris Station Dam to Carry Brook.⁴ Downstream of the Class III and IV rapids that run through the Gorge, after Carry

5 Certification at ¶10 (July 9, 2014), available at: http://www.maine.gov/dacf/lupc/projects/site_law_certification/slc5.pdf (in which the LUPC considered the reasonableness of alternatives in terms of their relative benefits and found that there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant precisely because none of the alternatives provided any benefit above the chosen site); Amendment A to Utility Line Permit ULP 178 at ¶¶12, 15 and Conclusion ¶2 (Apr. 1, 2015) available at: <http://www.maine.gov/dacf/lupc/signedpermits/ulp178a.pdf> (considering the reasonableness of alternatives in terms of the cost, visual impact, and safety relative to the preferred alternative).

² DEP’s review of the Project will consider alternative sites under NRPA. *See* 06-096 CMR 310.5, 06-096 CMR 310.9(A), and 06-096 CMR 335.3(C). Both the Site Law and NRPA applications require a narrative and drawing of proposed buffers, and the Site Law further requires this in 06-096 CMR 375.9(D). *See* Attachment I (June 2017 email correspondence with LUPC).

³ Pursuant to 38 M.R.S. § 489-A-1, the DEP reviews development within the unorganized and deorganized areas of Maine, and shall approve a development proposal under this section if it is an allowed use within the subdistrict or subdistricts in which it is to be located. 38 M.R.S. § 489-A-1(2)(A). The certification made by the LUPC concerns only those land use standards that are not considered in the DEP’s review. 38 M.R.S. § 489-A-1(2)(D).

⁴ *See* <https://www.americanwhitewater.org/content/River/detail/id/438>.

Brook, “the river becomes more sluggish the further downstream you go.”⁵ The Preferred Alternative crosses the Kennebec River about three miles downstream of the last major Class III and IV rapids (Black Brook Rapids). The three miles between Black Brook Rapids and the Project’s proposed overhead crossing location include occasional Class I or II rapids. At the Preferred Alternative location the river is generally flat water, and is not particularly valued by recreational users. CMP sited the Project at this flat water location to have the least impact on existing scenic and aesthetic uses.

The fact that the location of the proposed crossing is within the “outstanding river segment” that includes the Gorge does not mean that it is as valuable as the Gorge itself. The Legislature provided multiple segments of the Kennebec River with the special protections afforded to outstanding river segments, and those other outstanding river segments have overhead transmission line crossings. These include the 58.6 miles of the Kennebec River from Bay Point in Georgetown to its confluence with the Sebasticook River in Winslow (12 M.R.S. § 403(7), so designated in 2007), which segment includes three 345 kV transmission line crossings and many 115 kV and 34.5kV transmission line crossings. Also designated an outstanding river segment are the 32 miles of the Kennebec River from the Route 148 bridge in Madison to the Caratunk and The Forks Plantation town line (excluding the western shore in Concord Township, Pleasant Ridge Plantation, and Carrying Place Township, and excluding Wyman Lake) (38 M.R.S. § 480-P(8), so designated in 1987), which includes two 115 kV transmission line crossings and one 34.5 kV transmission line crossing.

The following transmission line crossings of the Kennebec River were constructed *prior to* designation of these segments as outstanding river segments:

- Section 207 (1947; 115 kV; Bath to Woolwich at Chops Point)
- Section 77 (1993; 34.5 kV; Bath to Woolwich at Chops Point)
- Section 375 (1970; 345 kV; Bowdoinham to Woolwich at Brown’s Point)
- Section 377 (1969; 345 kV; Bowdoinham to Woolwich at Brown’s Point)
- Section 19 (1962; 34.5 kV; Farmingdale to Chelsea at Brown’s Crossing)
- Section 13 (circa 1920; 34.5 kV; Waterville to Winslow)
- Section 81 (1953; 115 kV; Bowdoinham to Woolwich at Brown’s Point)
- Section 60 (original line circa 1923, rebuilt 1995; 115 kV; Farmingdale to Chelsea at Brown’s Crossing)
- Section 38 (original line circa 1925, rebuilt 1978; 34.5 kV; Augusta)
- Section 39 (original line circa 1925, rebuilt 1972; 34.5 kV; Augusta)
- Section 272 (1978; 115 kV; Augusta)
- Section 44 (1959; 34.5; Anson to Madison)
- Section 63 (original line circa 1932, rebuilt 1960; 115 kV; Concord to Moscow)⁶

⁵ *Id.*

⁶ The Concord side of the Kennebec River in this area is not an outstanding river segment.

The following transmission line crossing of the Kennebec River was constructed or reconstructed *after* designation of these segments as outstanding river segments:

- Section 3025 (2011; 345 kV; Farmingdale to Chelsea at Brown's Crossing)

Accordingly, pre-existing transmission line crossings do not disqualify a river segment from designation as an outstanding river segment. Nor does a river segment's designation as "outstanding" make a new transmission line crossing of that river segment unpermissible. In other words, just because the location of the proposed crossing is within a designated "outstanding river segment," that does not render the entire river segment pristine.

To the contrary, the overhead crossing would not be out of character with this section of the river. The entire Kennebec River whitewater rafting experience is inherently commercial. From late spring through early fall, the view at the location of the proposed crossing is of dozens of bright colored rafts, kayaks, and small inflatables, all with occupants who often are boisterous. And, as recently noted by the Portland Press Herald, this section of the Kennebec River plainly is not a wild river. The river below Harris Dam is a working resource, controlled by a dam, and private and individual boaters rely on human-controlled releases of water in this river segment:

There's an irony about debating the wild nature of the upper Kennebec River. If the river wasn't held back, first for log drives and later for hydropower, summer whitewater rafting wouldn't exist.

That reality is clear at 10 a.m. on a recent weekday at Harris Station, when a warning siren blares and a loudspeaker repeats: "Water levels downstream are increasing. Exit water immediately."

Within minutes, the river flow increases, as dam operators turn up the spigot on Indian Pond.⁷

This commercial and recreational use of this section of the river arguably has more impact on any bucolic nature of the river than does the proposed overhead crossing.

Additionally, rafters using the Kennebec Gorge already are exposed to and aware of existing transmission lines adjacent to the parking and staging areas prior to rafting. The sole vehicular access route to Harris Dam follows an existing transmission line, as Indian Pond Road is adjacent and parallel to the existing 150' wide cleared transmission corridor (the total corridor is 225') for 5.5 miles. The road is on the east side of the corridor in most locations, and the entire width of the road right-of-way is cleared to the transmission line corridor such that the transmission line corridor appears wider than

⁷ Tux Turkel, *Transmission lines over Kennebec Gorge? That may be a choke point for renewable energy advocates*, Portland Press Herald, June 24, 2018, at B1.

150'. These existing transmission lines are visible to rafters and other boaters while checking in, preparing to raft, and walking down the stairs next to the Harris Dam to put in to the water.

This existing human-caused visual impact at the Harris Dam put-in is significantly greater than the Preferred Alternative would be (see the discussion below), and affects rafters' and other boaters' aesthetic expectations on the river downstream.

Finally, we note that the Maine Department of Conservation (MDOC) has agreed that State ownership of the Gorge is not a basis to object to a proposed overhead transmission line at this location. See Attachment II, Agreement for Conveyance of Real Property – The Kennebec River Gorge Tract at ¶ 20 (Sept. 1, 2011) (in which “MDOC acknowledges that CMP is an electric utility company and is retaining ownership of a 300 foot wide corridor (a portion of the “retained lands”) north of Moxie Stream and Cold Stream for utility purposes including, but not limited to, the construction and operation and maintenance of overhead electric transmission lines, substations and appurtenant facilities. MDOC, for itself and its successors and assigns, covenants and agrees with CMP that this conveyance shall not be the basis for objecting to any future proposal by CMP to use the 300 foot wide corridor and appurtenant reserved access rights for such purposes.”).

2. The impact of the Preferred Alternative is minimal.

The visual impact of the Preferred Alternative is minimal. This is because CMP has located, designed, and planned for vegetation management of the Preferred Alternative specifically to minimize potential visual impacts to the fullest extent possible. As explained in the Site Law and NRPA applications, and as later revised, the design mitigates and buffers the overhead alternative to minimize both the duration and the extent of visibility of this aerial crossing. See Site Law Application Section 25.3.1.2; NRPA Application Section 2.4.1.2.

Note that the five pole option originally included in the Project's applications has been updated to a three pole option. This redesign was undertaken to increase and maximize the forested buffer on both sides of the riverbank and to remove two structures (3006-22, and 3006-23). The remaining two structures on the side-slopes of the Kennebec River (3006-21 and 3006-24) are screened from the line of sight of the users approaching the crossing point from upriver. See Attachment III, Response to the November 20, 2017, and December 12, 2017 MDEP Information Requests, at Responses 2 and 3 (Mar. 29, 2018). On the southeastern riverbank approximately 300 feet of mature forested buffer will be maintained, with trees within this buffer at an average height of 75 feet. On the northwestern riverbank approximately 550 feet of mature forested buffer will be maintained, with trees within this buffer also at an average height of 75 feet. At the centerline of the river, the conductor will be approximately 200 feet above the water level at maximum sag. *Id.* at Response 3. Advantages of the proposed three pole design compared to the five pole design include: fewer structures and associated ground disturbance; greater vertical clearance over the river and therefore reduced visibility from the water; greater vertical clearance over trees, allowing retention of trees over a larger area of forested buffer; and screened views of the transmission line structures and the cleared corridor from the perspective of river users. *Id.*

The Preferred Alternative also places transmission line structures outside of the P-RR subdistrict, and CMP proposes to utilize non-specular conductors at this crossing, to reduce the reflection of light by, and therefore the visibility of, the transmission line. See Site Law Application Section 25.3.1.2; NRPA Application Section 2.4.1.2; Attachment III at Response 2. Where terrain permits, CMP will allow mature trees to remain and to continue to grow to minimize views into the corridor from the river. *Id.*

Furthermore, photosimulations from multiple perspectives demonstrate that the Preferred Alternative would not unreasonably interfere with existing scenic and aesthetic uses, and therefore would not diminish the public enjoyment and appreciation of the qualities of this scenic resource. See Attachment IV, Response to the February 23, 2018 USACE Information Request, Attachment B: Kennebec River Gorge Photosimulations at Response 7 (Mar. 23, 2018). See also Attachment III, Response to the November 20, 2017, and December 12, 2017 MDEP Information Requests, Attachment A: Kennebec River Gorge Photosimulations, at Response 3 (Mar. 29, 2018). The transmission line at the Preferred Alternative location will be visible for only about 0.25 mile from the upstream side and 0.5 mile from the downstream side (assuming rafters turn around and look up after passing under the crossing, which would not be expected). With a typical current and raft/boat speed of about 6 miles per hour, the transmission line at the Preferred Alternative would be visible for only about 2.5 minutes from the upstream side and 5 minutes from the downstream side, again assuming rafters would turn around for this view. Due to the position, buffering, and limited duration of viewing, the overhead crossing in the proposed location will not diminish the recreational use or scenic character of the outstanding river segment located between the Forks and Indian Pond Dam. Accordingly, the two conductors and two shield wires that would cross the river at the Preferred Alternative location, which as described above is not particularly unique or wild, would not adversely affect existing uses of the Kennebec River.

Finally, CMP is proposing significant off-site mitigation specific to the Preferred Alternative, which we discussed at our May 31, 2018 meeting at DEP's Augusta office, and which would be lost if this alternative is not approved. While the Preferred Alternative will not have unreasonable impacts, and is the least environmentally damaging practicable alternative,⁸ this off-site mitigation is intended to alleviate any real or perceived adverse impacts of the Preferred Alternative. Specifically, and as set forth in the May 30, 2018 Memorandum of Understanding between CMP and Western Mountains & Rivers Corporation (WM&RC) (attached hereto as Attachment V) and the summary of that MOU that we

⁸ Because the Preferred Alternative is the least environmentally damaging practicable alternative, the USACE may consider the proposed mitigation and adopt such mitigation as a condition to the permit. See *Butte Environmental Council v. U.S. Army Corps of Engineers*, 620 F.3d 936, 946-947 (9th Cir. 2010) (rejecting plaintiff's contention that the USACE allowed the adoption of off-site mitigation measures to relieve the City of its responsibility to adopt the least environmentally damaging practicable alternative, and finding instead that while the USACE made compensatory mitigation a condition of the permit, "there is no indication that such mitigation was meant as an obligation in place of the City's responsibility to adopt the least environmentally damaging practicable alternative, as opposed to an obligation in addition to it."); *Florida Keys Citizens Coalition, Inc. v. U.S. Army Corps of Engineers*, 374 F. Supp. 2d 1116, 1132, 1134-35 (S.D. Fla. 2005) (upholding the USACE's Section 404 permit granted upon finding that "[t]he project as proposed with minimization efforts and mitigation ... is the least damaging practicable alternative.").

provided to you on May 31 (attached hereto as Attachment VI), CMP will provide donations totaling \$22 million to support and enhance tourism and outdoor recreation in Central and Northern Somerset County, including for the construction, operation, and staffing of a visitor center, maintenance of trails, maintenance costs associated with tourism infrastructure, and funding of educational and other programs to improve local tourism. CMP also will evaluate, and negotiate in good faith, donations of CMP land for trails, huts, Kennebec River leases, and other recreational infrastructure or amenities benefitting the region.

These mitigation and community benefits commitments will only be realized in the event that the Preferred Alternative is permitted and constructed, and support the conclusion that the Preferred Alternative will not have any unreasonable impacts.

As demonstrated above and in its applications, CMP incorporated environmentally sensitive design principles and components according to planning and siting, design, and offset strategies and mitigation to minimize potential aesthetic impacts of the overhead crossing. This Preferred Alternative has been located, designed, and landscaped to minimize its visual impact to the fullest extent possible. For these reasons, the impact of the Preferred Alternative is minimal and it will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses of the Kennebec River.

There is no reasonable alternative to the Preferred Alternative.

Conversely, the other alternatives analyzed are unreasonable.

1. The Brookfield Alternative is unreasonable.

The Brookfield Alternative would cross the Kennebec River just downstream of Harris Dam, and would require co-location with Section 222 within the Hydro Project area on the east side of the Kennebec River. No transmission line currently crosses the Kennebec River in this location. The river crossing (structure to structure) would be about 1,200' and would require 90°+/- angle structures on both the east and west sides. As explained in our Site Law and NRPA applications, this alternative would require creation of a new corridor, and widening of an existing corridor, about 900' of which would involve Brookfield Renewables-owned land that is encumbered by the Moosehead Kennebec Headwaters conservation easement.

In addition to the new corridor and widening of the existing corridor, the Brookfield Alternative would be visually prominent and would therefore have a significant visual impact on recreational users of the upper Kennebec Gorge and Indian Pond area. As demonstrated by the photosimulations provided to the DEP on June 29, 2018, structures on both sides of the river would be visible to all boaters, and there is no way to screen these structures. The Brookfield Alternative would be visible to all rafters and private boaters putting in to the Kennebec River and most likely would be directly over the stairway and marshaling area where rafters receive instruction before launching. The average time spent at the put-in underneath the Brookfield Alternative crossing site is 20 to 30 minutes. Were boaters to look

upstream, the Brookfield crossing site would be visible for 0.25 to 0.5 mile after entering the river. Accordingly, the Brookfield Alternative creates no less impact on existing scenic and aesthetic uses than the Preferred Alternative.

Furthermore, the Brookfield Alternative is 6.3 miles longer than the Preferred Alternative, and has greater impact on conserved lands. As acknowledged in your letter, the Brookfield Alternative would entail additional natural resource impacts, as it would require more clearing and would cross a greater number of streams, NWI mapped wetlands, inland waterfowl and wading bird habitat, and significant sand and gravel aquifers than does the Preferred Alternative. See Attachment IV, Response to the February 23, 2018 USACE Information Request, Kennebec River Crossing Overhead Alternative Comparison at Response 8 (Mar. 23, 2018).

Given the additional \$30 million cost of the Brookfield Alternative, with no less visual impact and significantly greater natural resource impacts, this alternative is not reasonable. And importantly, as noted previously, the off-site mitigation proposed for the Preferred Alternative would not be realized if the overhead crossing is not approved at the Preferred Alternative location.

Furthermore, the time needed for acquisition of rights and federal permissions required for the Brookfield Alternative is not practicable. Based on our experience siting and acquiring the needed rights on this Project, as well as recent discussions with Weyerhaeuser Company, the timeframe required to acquire a new corridor for the Brookfield Alternative and connect to the Preferred Route, including preliminary environmental work, would be two to three years and would have a probability of success of less than 50%. Approximately 6.4 miles of new corridor would need to be acquired from Weyerhaeuser Company, which is willing to discuss a sale of rights only if there is absolutely no impact to the Moosehead Region conservation easement. A reasonable timeline to negotiate an agreement and perform the necessary wetlands, vernal pools, and other natural resource surveys, land survey, and monumentation (marking of new ownership boundaries), would not allow CMP to take ownership of any Weyerhaeuser land until late 2019.

This alternative would also require that CMP acquire rights from Brookfield Renewables, which may refuse. Brookfield would also need to agree to reopen its FERC license or otherwise obtain FERC approval, triggering a protracted agency review process. Finally, the new corridor would cross the Moosehead Kennebec Headwaters conservation easement and require a release from both the easement holder and the DEP. A reasonable timeline to negotiate the necessary agreements and perform the necessary wetlands, vernal pool, and other natural resource surveys, land survey and monumentation, would not allow CMP to take ownership of any Brookfield or conservation easement land until late 2020. Based on the above, the cumulative probability of successful land rights acquisition for the Brookfield Alternative is estimated to be approximately 30%; in any case, this would not be accomplished within a timeframe that would allow CMP to meet its NECEC Massachusetts RFP in-service date contractual obligations.

Placing the overhead crossing just outside of the FERC project boundary⁹ would require obtaining rights only from Weyerhaeuser Company but would still not be reasonable because the timeframe for acquisition of such rights, as stated above, would not accommodate the project schedule. Additionally, locating the overhead crossing outside of the FERC boundary would place the transmission line in a location similar to the CMP Land Alternative, as described in the NRPA application. In fact, the segment of the Kennebec River just south of the FERC project boundary is more properly part of the Kennebec Gorge, contains Class III and Class IV rapids, and is central to the whitewater rafting and kayaking experience on the river.

As explained in Mark Goodwin's June 11, 2018 email to the agency officials present at the May 31, 2018 meeting at DEP's Augusta office, the estimated construction start date is late 2019, which is necessary to meet the obligations of the Massachusetts RFP. See Attachment VIII. Any delay in this start date would significantly undermine and penalize the NECEC Project, and thus such an alternative would not meet the Project's purpose, as described in the Site Law and NRPA applications.

For these reasons, neither the Brookfield Alternative, nor the variation of the Brookfield Alternative that is outside of the FERC project boundary, is a reasonable alternative.

2. The Underground Transmission Alternative is unreasonable.

Nor is the Underground Transmission Alternative (horizontal directional drilling) reasonable. The attached Power Engineers Report contains details on the Underground Transmission Alternative. See Attachment IX, Power Engineers *HVDC Underground Transmission Line Crossing Report* (Nov. 22, 2017). CMP anticipates there would be significant natural resource impacts associated with this alternative based on the extent of clearing and road improvements necessary to construct and maintain the Cable Termination Stations. The HVDC underground cable installation would require approximately 1,500' of open trenching to connect to the Cable Termination Stations on each side of the river, each of which would occupy an approximate 200' by 250' station footprint. See Attachment IV, Response to the February 23, 2018 USACE Information Request, Section 2.4.1.2.2, Directional Drill Alternative, at Response 9 (Mar. 23, 2018); Attachment III, Response to the November 20, 2017, and December 12, 2017 MDEP Information Requests, at Response 2 (Mar. 29, 2018).

Furthermore, upgrades on approximately fifteen miles of unimproved roads and associated bridges would be required to provide access to the Termination Stations in addition to the grading necessary for the stations and laydown area for drilling equipment. *Id.* Existing access roads would need to be improved by widening and by adding gravel, permanent culverts, and/or bridges, and these access roads would need to be maintained after construction to provide year-round access to the Termination Stations. Improved access adjacent to portions of the Cold Stream Forest conservation area may result in more intensive use adjacent to the conserved lands and sensitive brook trout habitat.

⁹ See Attachment VII (FERC project boundary map).

Conversely, access for overhead construction is achieved with fewer impacts and fewer permanent improvements (for example, matting would be used for vehicle access), and there is normally little or no ongoing maintenance requiring heavy equipment or motorized vehicles following construction of overhead lines.

Numerous operational issues with the Underground Transmission Alternative also make it unreasonable. See Site Law Application Section 25.3.1.2.2; NRPA Application Section 2.4.1.2.2. For example, underground transmission lines are more difficult to inspect, trouble-shoot, and maintain than overhead transmission lines. In the event of a line outage, CMP can inspect, identify, and repair deficiencies on an overhead transmission line much more quickly than an underground line.

Compounding these operational issues is the technical difficulty and challenge of installing the transmission line underground and beneath the Kennebec River. Unfavorable ground conditions can cause the horizontal directional drilling installation to fail during the drilling of the pilot hole. So too can the pilot hole collapse, resulting in immobilization and failure of the drill head. Formations of alternating geological strata also can push the drill assembly off-course and can require long drill lengths, both of which can contribute to the probability of failure. Multiple unsuccessful attempts at drilling the crossing would also increase the overall cost of this type of construction.

The additional estimated cost of the Underground Transmission Alternative is not financially practicable or reasonable. This alternative would total 3.9% of the overall Project cost, compared with the Preferred Alternative totaling only 0.6% of the overall Project cost. See Attachment IV, Response to the February 23, 2018 USACE Information Request, Section 2.4.1.2.2, Directional Drill Alternative, at Response 9 (Mar. 23, 2018); Attachment III, Response to the November 20, 2017, and December 12, 2017 MDEP Information Requests, at Response 2 (Mar. 29, 2018). This additional cost, coupled with the additional construction challenges, resource impacts, and operational issues described above, render this alternative unreasonable and impractical. And importantly, as noted previously, the off-site mitigation proposed for the Preferred Alternative would not be realized if the overhead crossing is not approved at the Preferred Alternative location.

Finally, the Underground Alternative may not even be possible, which is an additional reason it is unreasonable. While the November 2017 Power Engineers *HVDC Underground Transmission Line Crossing Report* (Attachment IX to this letter) described how an underground crossing of the Kennebec River might be accomplished utilizing horizontal directional drilling, this report did not evaluate either the feasibility or the reasonableness of this alternative. Given significant stakeholder interest in the Kennebec River crossing, CMP continues to gather information to be in a better position to answer questions from the public.

Conclusion

In conclusion, when compared to the Brookfield Alternative and the Underground Transmission Alternative, CMP chose the Preferred Alternative for the following reasons:

- Shortest construction duration.
- Allows CMP to meet Massachusetts RFP in-service date and other contractual obligations.
- Lowest cost.
- Best with respect to public and construction crew safety.
- Least impacts associated with construction of new and improved roads.
- Least disruptive with respect to road traffic and recreational access to the river.
- Least disruptive of other infrastructure (i.e., Brookfield Renewables' Harris Hydro).
- Provides the greatest mitigation benefits (economic, community supported, etc.).
- Least environmental impact (supports the detail already provided).
- Engineering, design, and construction methods for the Preferred Alternative are proven, established, and best in class for the chosen technology.
- Most readily accessible for future maintenance and repair work.
- Best alternative with respect to property ownership and easement rights.

What's more, the Project as a whole provides the following benefits for Maine communities and consumers:

- \$40 – 45 million annually through lower future energy costs.
- \$23 million annually higher Gross Domestic Product.
- 1,700 jobs created during planning and construction, 2017 – 2022.
- \$18 million annually in property tax payments, particularly in Androscoggin, Franklin, and Somerset counties.
- 265,000 metric tons avoided annual CO₂ emissions.
 - ≈ 10% total of emissions related to Maine's electricity load.
- Enhanced broadband services in western Maine.
- **\$0 annual project costs to Maine utility customers.**

As demonstrated in the Site Law and NRPA applications as well as above, the Preferred Alternative will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses of the Kennebec River. 38 M.R.S. § 480-D(1). Nor will the Preferred Alternative adversely affect existing uses, scenic character, air quality, water quality, or other natural resources in the area. 38 M.R.S. § 484(3). It has been thoughtfully and properly planned, sited, and designed, and mitigation has been proposed and potential impacts minimized, such that the Preferred Alternative will not diminish the public enjoyment and appreciation of the scenic and aesthetic qualities of this river segment. See Chapters 315.8, 315.9, 375.14. Furthermore, CMP has demonstrated that no reasonable alternative exists which would have less adverse effect upon the natural and recreational features of this river segment, and has proposed

significant and regionally-supported off-site mitigation as part of the Preferred Alternative. 38 M.R.S. § 480-D(8). The Preferred Alternative simply is the least environmentally damaging practicable alternative.

Sincerely,



Gerry J. Mirabile
Manager – Environmental Projects
Central Maine Power Company

cc: Naomi Kirk-Lawler, LUPC
Jay Clement, ACOE
Larry Warren, Western Mountains & Rivers Corporation
Mark Goodwin, Burns & McDonnell
Matt Manahan, Pierce Atwood LLP