

memo

To: Bill Hinkel, Land Use Planning Commission
From: James Palmer, Scenic Quality Consultants
CC: James Beyer, Department of Environmental Protection
Naomi Kirk-Lawlor, Land Use Planning Commission
Date: August 24, 2018
Re: Summary of problems and discussion of improvements

This memo is in response to your request "to have a summary section that concisely identifies the concern or issue identified with the current [NECEC] VIA and the recommended improvement." While the request would appear to be relatively simple, I have not found it so. However, I have done my best.

1. **Issue:** The NECEC VIA does not identify and evaluate all of the scenic resources that a plain language reading of Chapter 315 would identify.

For instance, TJDA has identified over 1,000 historic sites eligible for listing on the National Register of Historic Places, but there is no indication in the VIA that they were considered in the VIA. In addition, viewers often enjoy natural and cultural visual qualities seen from public roads, but only designated scenic byways are considered in the VIA. Maine's Open Space Tax Law provides a substantial property tax reduction in return for providing public access for recreation opportunities and scenic enjoyment; there is no attempt to identify these lands. When these and other scenic resources as defined by Chapter 315.10 are considered, it becomes clear that a landscape is being impacted and not just 40 or 50 viewpoints.

Recommendation: The VIA should investigate all potentially effected scenic resources so that DEP and LUPC understand the full implications for western Maine. The NECEC has the potential to be the initial step in changing the landscape character of a large area of western Maine. This situation is analogous to the review of Plum Creek's Concept Plan for the Moosehead Lake Region. If the Plan were implemented, the visual character of the landscape would change from what many experienced as "wild" to a more settled landscape. The LURP gave this issue serious consideration and decided to approve the plan. The NECEC should also receive a similarly close critical evaluation of the potential change in visual character experienced by viewers.

2. **Issue:** The VIA does not use the most accurate available land cover height information; heights and locations for transmission structures do not appear to have been available until a couple weeks before the VIA was submitted.

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. In addition, the VIA only determines when the top of a structure may be visible, though that may not be recognizable by a viewer.

Recommendation: Higher quality LiDAR or IfSAR elevation (DTM) and canopy height (DSM) data should be used for the visibility analysis. In addition to visibility of a structure's top, the viewshed of the top 15 feet should be identified. This would generally include the upper horizontal element of a structure and be enough that viewer would identify it as a transmission structure.

The VIA should include a visibility analysis of the existing transmission line, which would provide an opportunity to assess the visibility analysis accuracy. This would provide an indication of the probable accuracy of the proposed project's viewshed.

3. **Issue:** The VIA does not provide a procedure to identify key observation points (KOPs) in order to assure that there is adequate representation of the diverse scenic resource viewpoints, particularly the ones selected for visual simulations.

The impact to a scenic resource is represented by one or more viewpoints (i.e., KOPs) (Chapter 315.10). These include representative and worst-case viewpoints (Chapter 315.7). The determination that the proposed project does not result in an unreasonable scenic impact is made at these KOPs (Chapter 315.9). As a result, the particular selected KOPs have a critical effect on the VIA's results.

Recommendation: A reasonable procedure needs to be proposed and the selection of representative and worst-case viewpoints needs to be clearly described and fully documented.

4. **Issue:** The visual character of the landscape and the visibility and visual contrast of the proposed project varies seasonally: full-leaf summer, fall color, winter with and without snow cover, and spring with the beginning of leaf-out. The VIA is essentially limited to full-leaf summer-like conditions. In this condition, the self-weathering single-pole structures may minimize visual contrast. However, when the trees are without leaves and there is snow on the ground these structures and the cleared ROW present a greater visual contrast with their surroundings.

Recommendation: The visual impact during fall color, and winter conditions with and without snow needs to be simulated and evaluated. Measures should be evaluated to mitigate these impacts.

5. **Issue:** Several of the Chapter 315 criteria involve the experience of viewers, such as their expectations, the extent and duration of activities, and the effect on enjoyment of scenic qualities. The VIA does not provide any evidence to support the assessment of these criteria.

Recommendation: Potential viewers should be interviewed at viewpoints with the greatest potential visual impacts to determine how viewers may be affected. These interviews should be conducted throughout the seasons when viewers will be engaged in activities at the viewpoint. The analysis of these responses should indicate the importance of the visual change to the viewers.

6. **Issue:** The VIA does not present an explicit procedure to evaluate scenic impacts.

Recommendation: Chapter 315 identifies a number of criteria that are to be considered, scattered among several sections, and sometimes using different wording. The VIA needs to clearly state and organize the evaluation criteria. Each of these criteria needs to be measured by a procedure that provides reliable and valid results, and then evaluated using explicit thresholds to determine whether the visual impact is adverse or unreasonably adverse.

For instance, the Basic VIA Form measures some of the criteria describe by Chapter 315.9 and provides evaluation thresholds. Research in the use of this type of contrast rating assessment recommends that there be at least five trained evaluators to obtain reliable results. The other Chapter 315 criteria should be evaluated using similarly well-defined procedures.

7. **Issue:** The VIA does not provide a single summary of impacts to each scenic resource, and there is no procedure to synthesize the evaluation results for the may scenic resources into a single overall result.

Recommendation: At a minimum, each scenic resource with potential visibility should be listed in a table with the evaluation for each of the Chapter 315 criteria. Some sort of procedure needs to be described for determining if the impact to a scenic resource is adverse or unreasonably adverse, and then how these individual evaluations contribute to an overall evaluation for the project, or sections of the project.

8. **Issue:** The VIA does not analyze cumulative impacts or provide a procedure to determine when they become unreasonable.

Recommendation: The VIA should describe and apply a procedure to determine when cumulative impacts become unreasonable. Much of the NECEC is located within an existing corridor; this existing transmission line's impact needs to be assessed to understand the incremental and cumulative impacts of the NECEC. Similarly, the new corridor in Section 1 presents an opportunity for other generators to justify sharing the corridor as a way to "mitigate" their

visual impacts, resulting in an increasingly severe cumulative impact. These future cumulative impacts can be anticipated and should be considered. For instance, such a consideration might contribute to deciding how best to cross the Kennebec River or the Appalachian Trail.

9. **Issue:** Impacts do not need to be unreasonable before mitigation is applied: "Applicants may be required to employ appropriate measures to mitigate the adverse impacts to the extent practicable" (Chapter 315.8). The VIA does not appear to have considered a full range of mitigation to demonstrate that "any potential impacts have been minimized" (Chapter 315.9).

Recommendation: The VIA should describe and apply a systematic procedure to evaluate the benefit of using mitigation for both common situations, such as road crossings, and for more unique situations, such as the Kennebec