Attachment D

SE GROUP

Elizabeth Mine Solar Project -
Preliminary Aesthetic Evaluation

SE Group, a Vermont-based landscape architecture and planning firm specializing in scenic resource analysis, has completed a preliminary assessment of potential aesthetic impacts attributable to the Project. This preliminary assessment was made using the most current design and layout for the Project in conjunction with desktop analysis using GIS and a site visit to the area on July 8th, 2015.

Context

The proposed Project is an approximately 5 MW (AC) solar electric generation facility located off of Mine Road in South Strafford and Thetford, Vermont. The site is the location of the "Elizabeth Mine," a former copper mining operation that resulted in serious contamination of surrounding surface waters and soils. It was identified by the U.S. Environmental Protection Agency ("EPA") as a Superfund site under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") in 2001. The EPA, in coordination with the Vermont Department of Environmental Conservation ("DEC"), has developed and implemented several stages of a site remediation plan, and is continuing to carry out remediation actions on the remaining contaminated areas. DEC is largely responsible for maintaining the remediation measures and monitoring the site and areas around the site for any evidence of contamination migration into groundwater, surface waters, or soil.

The proposed solar project would be sited within the areas of the Elizabeth Mine site known as "Tailings Pile 1 and Pile 2," which are sections of the Elizabeth Mine site that have been remediated and the contamination is now contained by an engineered liner and a clean cap of soil, which is fully covered with established grass vegetation. The overall parcel is bordered by dense forest on all sides, with Copperas Road running along the western side of the property and Mine Road running from the northwest edge of the site, around the western boundary, to the southeastern edge of the site.

The individual solar panels (approximately 22,000 at 310 watts each) comprising the array are mounted on a rack system. Each panel is separated from adjacent ones by a metal frame. A total of 1200 (+/-) racks will be utilized, depending on the final panel selection. The racks will be set on ballasted foundations and hold the solar panels at a fixed angle of about 30 degrees, to maximize solar radiance collection. The use of ballasted foundations will prevent the Project from adversely impacting the site's cap. The support structures are designed to hold the bottom of the solar panels at approximately 3 feet above existing grade, which will allow snow to shed without creating buildup on the ground that might compromise energy production. The top of the solar panels will be fixed at approximately 10 feet above grade.

The arrays will be arranged in rows running east-west and set at a sufficient distance apart (approximately 15-20 feet) to minimize self-shading. The arrays will be connected via electrical cable that will run above ground to combiner boxes, which will be wired to the inverters by cables running above ground in cable trays. The inverters will connect to a transformer housed in a vault with a secondary oil containment structure. The secondary containment structure would protect the surroundings in the event of a spill of the bio-based, non-petroleum transformer oil. None of the Project elements will require excavation, grading, or any other action that might disturb the cap or adversely affect the remediation work that has been completed.

As noted above, the periphery of the site is surrounded by dense tracts of forest land. Two road are within the immediate vicinity; Mine Road and Copperas Road. Mine Road provides the main access to the site as well as supports the roadside electric distribution system that will convey the power. There are a number of residential properties along Mine Road near the entrance to the former mine; however, views of the property are limited by existing trees. Copperas Road intersects with Mine Road then heads south and west. Roadside vegetation along the roadways is present and partially screens views into the site.

The limits of the proposed solar array are shown in context with the surroundings on Figure 1. Photographs taken within the likely viewshed of the Project are provided on Figures 2-4 and their locations noted on Figure 1. Photographs at viewpoints "A" and "B" (Figure 2) were taken along Mine Road near the entrance to the site. Roadside trees are present that partially screen the view. Photographs at viewpoint "C" (Figure 3) were taken just west of the site near some residential structures. The wooded perimeter of the site is much denser in this location. A roadside historic marker is noted at this photographic point. Photographs at viewpoint "D" (Figure 3) were taken near Copperas Road and show screened views into the site. The last set of photographs taken were at viewpoints "E" and "F" (Figure 4) and show similar roadside visual characteristics as other locations. From all viewpoints the existing views are significantly foreshortened by roadside vegetation and are not open or expansive to views of the broader, regional landscape pattern of rolling hills, dense forests and meadows.

Initial Findings

The initial findings from this effort affirm that the offsite visibility of the Project will be minimal. Given the historic legacy of the Project as a mining operation, extensive natural vegetation has been maintained along the periphery of the subject property which minimizes the probability that it will be seen from public rights-of-way or residential properties. Based on our preliminary field reconnaissance, only along short segments of Mine Road and/or Copperas Road, where roadside vegetation is less dense, will partial views into the Project site be possible.

Another aspect of the site that may affect visual/aesthetic issues are its historic significance. During our field reconnaissance SE Group observed a historic marker along Mine Road that, in

addition to noting the historic use of the site for copper mining (beginning in the 1790s), reflected on its status as an EPA site and the remediation efforts that followed. While the presence of the Project does not necessarily affect this historic footnote, it will be important to work closely with the Division for Historic Preservation to understand any issues it may have.

Initial Conclusions

Based on the preliminary design and our initial findings, we **do not believe the Project will have an adverse impact on the visual resources** of the area. The potential viewshed for the Project appears very limited based on terrain and existing vegetation. While the site has historic significance as a vestige of Vermont's industrial past and its commitment to environmental stewardship, the development of the Project does not seem likely to affect this. In fact, the development of the Project may be seen as yet another way of utilizing these lands for natural resource extraction that, on balance, has little negative environmental impact.

SE Group's final assessment will include a complete evaluation of the Project applying the Quechee Analysis methodology; and fully addressing whether the Project is unduly adverse to the aesthetics and the scenic or natural beauty of the area.