

Exhibit CS-BW-74

Docket 8302

Exhibit CS-DB-5

*Environmental Assessment of
Interconnection Route*

**Supplemental Environmental Assessment for:
Interconnection Route
2.0 MW Solar Photovoltaic Generation Facility
Chelsea Solar Farm Project
500 Apple Hill Road
Bennington, Vermont**

*Prepared by:
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Interconnection Route
2.0 MW Solar Electric Generation Facility
Chelsea Solar Farm Project
500 Apple Hill Road
Bennington, Vermont**

Table of Contents

	Page #
I. Summary Findings	1
II. Introduction and Project Description	2
III. Site Characterization	3
IV. Criterion 1(F) Shorelines	4
V. Criterion 1(E) Streams and Outstanding Resource Waters (Update w/new poles)	4
VI. Criterion 1(G) Wetlands	6
VII. Criterion 8 Rare or Irreplaceable Natural Areas	7
VIII. Criterion 8(A) Wildlife Habitat and Rare, Threatened and Endangered Species	7
IX. References.....	8

List of Figures

Figure 1. Assessment Area Map	3
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I. Summary Findings

Arrowwood Environmental, LLC (AE) conducted an environmental assessment for the interconnection route for the proposed Chelsea Solar Farm Project (“Project”) during the spring of 2015. AE concludes that the proposed route has been sited and designed to avoid adverse impacts to the following environmental resources: shorelines, outstanding resource waters, streams, wetlands, rare and irreplaceable natural areas, and necessary wildlife habitat. AE will be conducting a rare, threatened, and endangered (RTE) plant species survey in the summer of 2015.

In summary, there are no shorelines, outstanding resource waters, rare and irreplaceable natural areas, or necessary wildlife habitat along the proposed route. Thus, there will be no adverse impact on these resources.

AE identified, delineated and mapped wetland resources along the proposed interconnection route. For the purposes of this project, it is assumed that wetland resources are Class 2 and provided a 50’ buffer. The project will involve placement of three new utility poles within wetland buffer resources with minimal clearing. The project will involve no direct wetland impacts.

AE identified and mapped stream resources along the proposed interconnection route. The proposed interconnection route will result in minimal clearing of trees along Hewitt and Willow Roads. Poles are to be installed within the existing road fill slope resulting in no new disturbance to stream riparian zones.

Very rare, rare and uncommon plant species were identified within the Project development area during the field season of 2014. An RTE plant survey has not been conducted for the proposed interconnection route but will be during the summer of 2015.

II. Introduction and Project Description

Arrowwood Environmental, LLC (AE) was retained to perform an environmental assessment for the proposed Chelsea Solar Farm Project, a 2 MW solar electric generation facility located at 500 Apple Hill Road in Bennington, Vermont. The results of that assessment are presented in the June 15, 2014 Environmental Assessment Report and the Supplemental Environmental Assessment Report dated 8/22/14.

The focus of this report is the proposed interconnection route. This report outlines AE's findings as related to environmental criteria incorporated by the Public Service Board into the review of solar projects, including: shorelines, streams, outstanding resource waters, wetlands, rare and irreplaceable natural areas, necessary wildlife habitat, and rare, threatened and endangered plant and animal species.



The environmental assessment involved both a remote review of available digital databases as well as field investigation in the Project site and vicinity. The field investigation was conducted by Dori Barton and Michael Lew-Smith on May 11, 2015

Willow Road portion of the interconnection route (5/11/15)

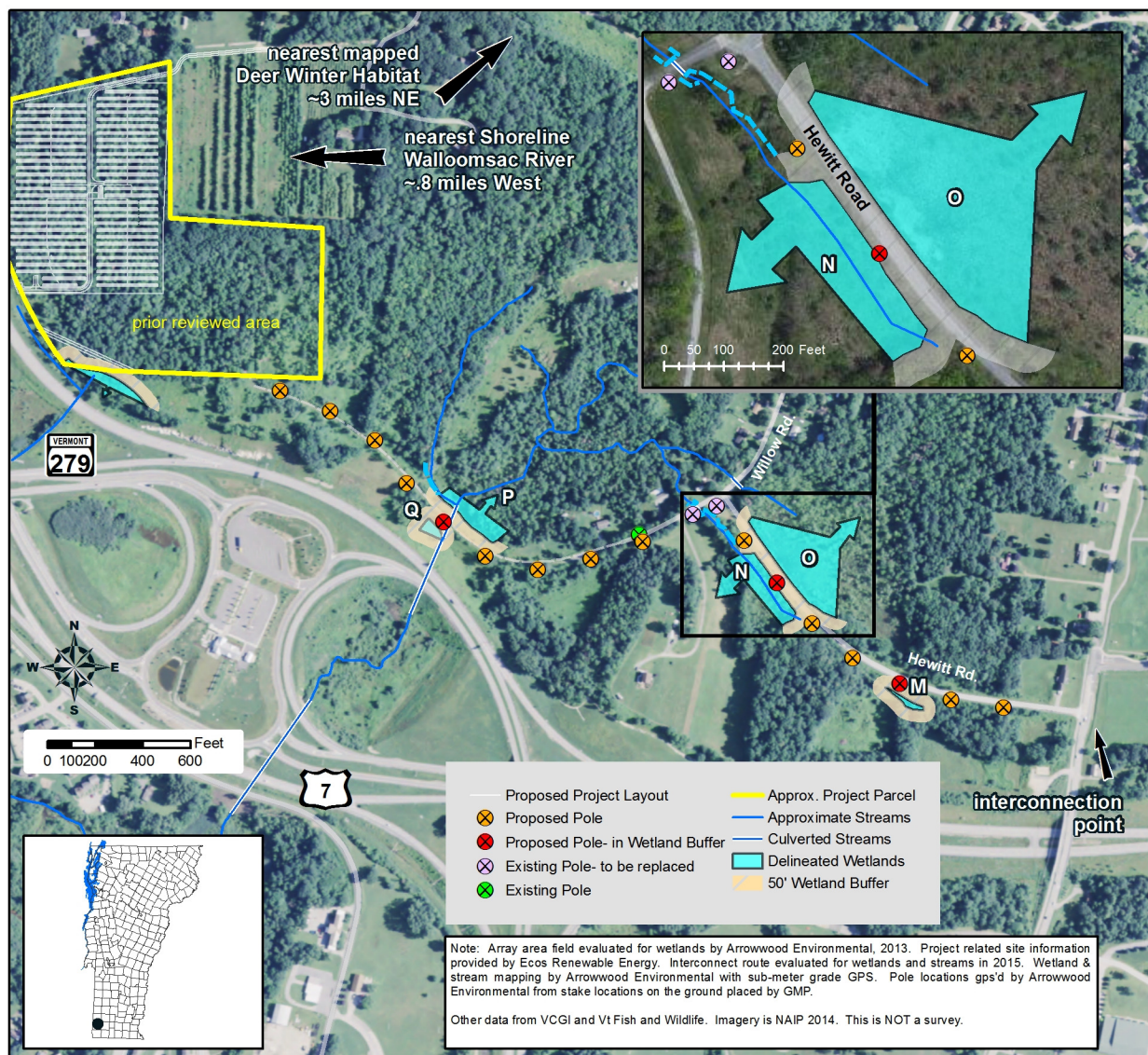


Figure 1: Resource Assessment Area Map

III. Site Characterization

The proposed interconnection route originates within the project development, parallels Willow Road for a distance of ~2,250 ft to where it intersects with Hewitt Drive. The interconnection proceeds to run parallel to Hewitt Road for a distance of ~1,900 ft on the southern side of the road to the intersection of East Road.

The interconnection involves the installation of 10 poles along Willow Road and 7 poles along Hewitt Road. It is our understanding that the poles are to be placed ~10' from the edge of the travelled road surface, with only minimal tree trimming as necessary.



Hewitt Road portion of interconnect route (5/11/15)

IV. Criterion 1(F) Shorelines

AE reviewed USGS topographic maps, the Vermont Hydrography Dataset (streams, rivers, and waterbodies), and digital orthophotography. The route of the proposed interconnection is not located near a shoreline of a river, pond or lake. The closest shoreline is that of the Walloomsac River, approximately 0.8 miles to the west of the proposed route. The proposed interconnection route will result in no adverse impact to shorelines.

V. Criterion 1(E) Streams and Outstanding Resource Waters

The stream assessment involved both a remote review of the USGS topographic maps, the Vermont Hydrography Dataset (streams, rivers, waterbodies) and 2' contours derived from FEMA Bennington Lidar (2012) and a field investigation on May 11, 2015. There are a series of small tributaries to the Walloomsac River within the proposed interconnection route, shown on the Resources Assessment Map above.

There are two existing poles at the intersection of Willow and Hewitt Roads which will be replaced as part of this project. The two existing poles span a small unnamed tributary. There shall be no additional clearing associated with the pole replacement.



Intersection of Willow and Hewitt Roads where two existing poles that span a small unnamed tributary are to be replaced

A second unnamed tributary crosses Willow Road ~1000' from the Willow and Hewitt Road intersection. This stream is culverted under Willow Road and then again under Route 279. The pole as shown in the photo below, will be located along Willow Road, within the existing fill slope.



Second unnamed tributary with proposed pole location along Willow Road

The proposed interconnection route will result in minimal clearing of trees along Hewitt and Willow Roads. Poles are to be installed within the existing road fill slope resulting in no new disturbance to stream riparian zones. Top of bank of stream resources within the proposed route were surveyed on May 11, 2015.

The Water Resources Panel has listed four waterways as Outstanding Resource Waters: Batten Kill River in towns of East Dorset and Arlington; Pike's Falls/Ball Mountain in the town of Jamaica; Poultney River in the towns of Poultney and Fair Haven; and Great Falls, Ompompanoosuc in the town of Thetford. There are no Outstanding Resources in the Project Area.

VI. Criterion 1(G) Wetlands

The wetland assessment involved both a remote review of available maps (including Vermont Significant Wetland Inventory Maps (VSWI 2010) and the NRCS Soil Survey) and a field assessment on May 11, 2015. Five wetlands were identified, delineated, and mapped along the proposed route. There are no vernal pools in along the proposed route.

For the purposes of pole layout, each of the five wetlands is assumed to be Class 2 and has been provided a 50' buffer (as shown on the Resource Assessment Map above). The proposed placement results in three poles within wetland buffer zones of three wetlands. The Vermont Wetland Rules (Section 6.22) allow for the installation of a new overhead utility line that does not involve extensive tree clearing, with three poles or fewer in the wetland or buffer zone. The project has been designed to avoid direct wetland impacts. The poles are to be installed within the existing road fill slope resulting in minimal disturbance to wetland buffer areas. It is our opinion that the proposed interconnection will not involve extensive tree clearing and we have requested that Green Mountain Power provide us with confirmation that no wetlands permit will be required.

VII. Criterion 8 Rare or Irreplaceable Natural Areas

The Rare or Irreplaceable Natural Areas (RINA) assessment involved both a remote review of available digital maps for the Project area and a field assessment on May 11, 2015. AE reviewed digital orthophotography, the Bennington County Soil Survey, the 2011 Bedrock Geologic Map of Vermont and the Wildlife Nongame and Natural Project (NNHP) Rare, Threatened and Endangered Species digital database. In reviewing the NNHP digital database, there are no records or occurrences of significant natural communities in or near the interconnection route.

Pole placement for the proposed interconnection route will be approximately 10' from the travelled edge of Willow and Hewitt Roads. This area is characterized as mowed road shoulder and existing fill slope. No Rare or Irreplaceable Natural Areas are present within the proposed route.

VIII. Criterion 8(A) Wildlife Habitat and Rare, Threatened and Endangered Species

The wildlife habitat assessment involved both a remote review of available digital maps for the Project area and a field inventory component. A remote review of available digital databases was

conducted to identify and map necessary wildlife habitat within the proposed interconnection route and the general vicinity of the project.

A. Necessary Wildlife Habitats

1. White-Tailed Deer Wintering Habitats

There are no mapped VT Fish and Wildlife Department white-tailed deer (*Odocoileus virginianus*) winter habitats in the area. The closest State mapped deer wintering area is approximately 3 miles to the northeast of the Project site.

2. Black Bear Habitat

The nearest “productive” black bear habitat (*Ursus americanus*) and mapped by the Vermont Fish and Wildlife Department is approximately 6,000’ to the east of the Project and separated from the Site by well-traveled paved roads.

B. Rare, Threatened and Endangered Species

AE identified very rare, rare and uncommon plant species within the proposed project development area in the summer of 2014. Due to the early season field conditions during the May 2015 field investigation, an RTE plant survey has not yet been conducted along the proposed interconnect route. The RTE survey will be conducted during the summer of 2015. Protocol for this RTE survey are outlined in the RTE Plant Survey Approach for GMP Interconnection Line Area as presented in the Appendix A.

IX. References

1. Argentine, Cindy Corlett. Vermont Act 250 Handbook. Putney Press. 2008.
2. Natural Resources Board. Vermont Wetland Rules. Effective August 1, 2010.
3. Natural Resources Conservation Service. Soil Survey Maps. Bennington County
4. Ratcliffe, N.M., Stanley, R.S., Gale, M.H., Thompson, P.J., and Walsh, G.J., 2011, Bedrock geologic map of the Vermont: U. S. Geological Survey Scientific Investigations Map 3184, scale 1:100,000.

APPENDIX A

RTE Plant Survey Approach for GMP Interconnection Line Area

It is acknowledged that the plant survey previously performed for the solar array portion of the project confirmed the presence of Arrow-Leaved American-Aster (*Symphotrichum urophyllum*), an S1-ranked very rare species, and Nimblewill Muhly (*Muhlenbergia schreberi*), an S2-ranked rare species. A plant survey now needs to be performed for the interconnection line portion of the project, which is located in the vicinity of the solar array portion.

Due to contractual obligations related to the SPEED program, Chelsea Solar needs to commence construction by the Fall of 2015 to meet its recently extended commissioning deadline. Chelsea must obtain a Certificate of Public Good from the Public Service Board prior to commencing site preparation or construction. The timing of the plant survey for the interconnection line is impacted by the timing of Chelsea's construction schedule, and the CPG process. In order to maintain the schedule, the plant survey would need to be completed by mid-July. However, the Arrow-Leaved American-Aster does not flower until mid-August. While aster plants will be vegetative in early July, it could be difficult to positively identify plants at the species level at that time. There are about 28 different American-aster species (*Aster* spp. *Sensu lato*) in Vermont. The Arrow-Leaved American-Aster is not the only rare American-aster species. Chelsea, through Arrowwood Environmental (Chelsea's natural resource consultants), and the Agency have developed the following two-phase approach that would allow an initial plant survey to be completed by mid-July, to be followed, if necessary, by second survey to identify plants at the species level. The second phase could be completed after the issuance of a CPG, but must be completed prior to commencement of site preparation or construction. Should the second phase confirm the presence of the Arrow-Leaved American-Aster, or any other RTE plants, Chelsea will be required to attempt to avoid any impacts, and if they demonstrate this is not feasible, then provide for mitigation, subject to the Agency's approval, prior to commencement of site preparation or construction.

1. Arrowwood shall conduct an initial RTE plant survey for the interconnection line area sometime between July 6 and 15.
2. Chelsea shall provide the results of the initial plant survey (along with remainder of natural resource assessments – e.g. wetlands, vernal pools, streams, etc.) to the Agency by July 22.
3. If the survey confirms that there are no unidentifiable plants of American- Aster, or any other potential RTE plants, then Chelsea may proceed with construction (subject to obtaining a CPG and appropriately avoiding or mitigating any other natural resource impacts).
4. If the survey confirms the presence of unidentifiable plants of American -Aster, or any other potential RTE plants, then Chelsea may proceed with construction provided it completely avoids the areas where the plants are present (subject to obtaining a CPG and appropriately avoiding or mitigating any other natural resource impacts).
5. If Chelsea is unable to avoid the plants, as provided for in condition 4, then Chelsea shall perform a second survey to identify the American-Aster and any other potential RTE plants at the species level. This second survey shall be performed at a time when the plants in question are at a stage in their life cycle that allows them to be positively identified at the species level.

6. If the second survey confirms that none of the plants in question are RTE plants, then Chelsea may proceed with construction (subject to obtaining a CPG and appropriately avoiding or mitigating any other natural resource impacts).
7. If the second survey confirms the presence of the Arrow-Leaved American-Aster, or any other RTE plants, then Chelsea shall provide for mitigation, subject to the Agency's approval, prior to any site preparation or construction.