



ASSESSMENT AND REVIEW OF AESTHETICS AND ORDERLY DEVELOPMENT FOR THE PROPOSED BABCOCK SOLAR PROJECT

Brandon, Vermont

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- Figure 1. Project Site Photo Inventory & Visibility, Sheet 100
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1. Project Background

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1.1 Introduction

This assessment and review is prepared on behalf of Babcock Solar Farm, LLC to provide an objective, professional opinion on the proposed Babcock Solar Project (Project) located in the town of Brandon, Rutland County, Vermont. This report and its accompanying photographs and exhibits are conducted within the parameters set forth in Title 30 Section 248 of the Vermont Statutes Annotated, for review of commercial energy generation and transmission projects. The analysis thus considers the requirements of the Quechee Analysis, established in 1985 in the Environmental Board's Quechee Lakes decision.

1.2 General Approach

The following narratives and exhibits, assembled by the professional staff at LandWorks, provide a full Quechee Analysis of the proposed Babcock Solar Farm and demonstrate and conclude that the Project, as currently proposed, will not result in an undue, adverse impact on aesthetics in accordance with the two-step Quechee Analysis and will not unduly interfere with the Orderly Development of the Region.

The methodology for the aesthetic assessment of this Project includes visual and cartographic analyses, field study, and document research and review. Our primary analyses assess the Project's visibility and potential for visual and aesthetic impacts. Aesthetic analyses typically focus on vantage points from major federal, state or local roads, relationships to nearby public lands and areas of public interest, tourism destinations with scenic resources, areas with high scenic value and/or official designation as a cultural, aesthetic, or recreational facility or resource. Locations that involve residential areas in close proximity to the proposed solar project are also considered, although review of aesthetics under Section 248 using the Quechee Analysis specifically does not guarantee that views from individual private homes and properties will never change. The PUC has established that the focus of an aesthetics analysis is

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not “in contemplation of protecting private property, but rather a mechanism for protecting members of the public from exposure to aesthetic degradation.”¹

1.3 Project Description

The Babcock Solar Farm is a proposed 2.2-MW AC ground-mounted solar electric generation facility located northwest of the intersection of Park Street Extension and Country Club Road in the town of Brandon, Vermont at 1046 Park Street Extension (coordinates 43.805971, -73.072138) (the “Site” or “Project”). The Project is typical of an installation of its type and size, comprised of photovoltaic modules on fixed-tilt ground mounted racks, anchored to the ground using purpose-built post foundations.

The Project’s siting and layout is determined by several constraints that the Project design accounts for to minimize impacts, including wetland and stream resources and buffers, archaeological sites, forested areas (to minimize tree cutting), setbacks from road and property lines, equipment sound levels, visual impact considerations, and existing underground municipal water line.

The principal Project components include:

- An approximately 10.9-acre total fenced area, in two arrays separated by a riparian wetland buffer (the west array and east array) on privately owned land totaling approximately 26 acres;
- A perimeter fence that will be approximately 8 feet high, with a locking gate, for safety and for large wildlife exclusion/allowance for small wildlife passage;
- Approximately 8,000 solar panels running in an east-west direction, with 45 rows in the in the western array and 22 in the eastern array;
- Two new short access drives, from Park Street Extension for the west array, and from Country Club Road for the east array. The access drives will be stabilized by a

¹ Re: Rinkers, Inc., No. 302-12-08 Vtec at 17-18 (Vt. Env’tl. Ct. May 17, 2010) (Wright, J.) (quoting Re: Lawrence E. Thomas, Permit No. #2W0644-EB, Findings of Fact, Concl. Of Law, & Order, at 11 (Vt. Env’tl. Bd. Feb. 18, 1986)).

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compacted gravel surface installed after removal of topsoil and will be typically 12' wide and 12" deep;

- One concrete electrical equipment pad located within the perimeter fence of the east array, with secondary oil containment for the for the proposed electrical equipment, including a 2.2 MW central inverter, a 2,200 kVA transformer, metering equipment, and other necessary equipment;
- Electrical interconnection from the Project to the adjacent Green Mountain Power ("GMP") distribution line includes both underground and above-ground electrical line. The underground portions will be installed by direct burial from the Project arrays to the equipment pad, for which a 10-foot wide direct disturbance width has been assumed, and a short segment of horizontal directional drill ("HDD") or jack/bore technique, to connect the west array to the inverter and other electrical equipment located in the east array to avoid wetland and buffer impacts. From the electrical pad the interconnection will transition to overhead with three new distribution utility poles that will connect via an overhead line to an existing GMP power pole located on the west side of Country Club Road;
- Tree cutting (without stumping or grubbing) that will be seasonally restricted in an area west of the west array to prevent shading of the array;
- Two stockpile areas for primary agricultural soils excavated from the within the Project site;
- Improvements to the existing GMP distribution lines along Country Club Road to be completed by GMP;
- During construction, two temporary staging areas located adjacent to the access drives, will be used to store materials and equipment.

1.4 The Aesthetic Assessment

Under Section 248(b)(5), the Vermont Public Service Board must find that the Project will not have an undue adverse effect on aesthetics, giving due consideration to Criterion 8 of Act 250. Act 250's Criterion 8 addresses aesthetic impact within the parameters of the so-called Quechee Analysis, which was established to provide a consistent and defensible method for evaluating the aesthetic impacts of projects undergoing Act 250 review. The Quechee Analysis is a two-step process, which begins with assessing the nature of the project, its context, and whether it will lead to adverse aesthetic impacts.

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This step asks whether the project is in harmony with its surroundings, and the analysis is based on a clear understanding of the nature of the visual impacts. This step must describe the surrounding area of the project and the compatibility of the project with those surroundings. It also asks: 1) whether suitable colors and materials have been used; 2) how visible the project is; 3) how the project affects open space in the area; and, 4) whether the project has been proposed for visually sensitive land.

If the conclusion from this first step of the analysis is that the aesthetic impacts of the project will not be incompatible with its surroundings, then the aesthetic impacts of the project are considered not adverse. If this is not the case, then the project is considered to have an adverse impact and the second step of the analysis is required to determine if the adverse impacts are undue. The second step asks three questions: 1) does the project violate any clear, written community standards intended to protect the scenic beauty of the area; 2) does the project appear shocking or offensive to the average person; and 3) has the applicant taken all generally available and reasonable steps to mitigate the identified adverse impacts of the project as proposed? If the answer to questions 1 or 2 is yes, or the answer to question 3 is no, then the aesthetic impact of the project is considered unduly adverse under the Quechee Analysis.

Our analysis for energy projects subject to Section 248 approval does not end, however, with the results of the Quechee test. Instead, our assessment is "significantly informed by the overall societal benefits of the project."²

² In re Northern Loop Project, Docket No. 6792, Order of 7/17/03 at 28

2. The Quechee Analysis

2. The Quechee Analysis

As stated in the initial narrative regarding the Quechee analysis, the applicant must address the relationship of the proposed project to its surroundings, describe its color and materials, its impact on open space, and assess other aesthetic qualities.

Therefore, this section follows the Quechee analysis on a step-by-step basis. The first step asks a series of questions to ascertain whether or not a project will have an “adverse” impact. If a project is found to be adverse, the second step is triggered, and will determine whether that adverse impact is “undue.”

2.1 First Step of the Quechee Analysis

2.1.A What is the nature of the Project surroundings?

The project is located at the edge of Brandon Village in a Rural Residential Land Use District. It's location fits within the intent of the Town of Brandon's Future Land Use Plan with regard “Settlement Patterns” as it is proposed for an area at the village outskirts that has low to medium density residential development as well as commercial/institutional uses (the Masonic Lodge) and commercial/recreational uses (Nashoba Valley Country Club) :

“Solar projects shall be sited in areas that reinforce Brandon's unique, historic settlement pattern of compact centers (Downtown, Forestdale, and Park Village) surrounded by working farms and forests, as well as significant tracts of relatively undisturbed or regenerating natural areas”. (Brandon Town Plan – page 23)

This is a landscape with a typical Champlain Valley pattern of local roads, farmlands, fallow fields, hedgerows and forests, with level to slightly rolling topography with wetlands and stream courses interspersed. Residential yards with lawns and landscaping as well as wooded homes sites are present in the vicinity of the project site. Neither Park Street Extension nor Country Club Road are highly traveled roads and are not heavily used for walking or biking. These roads are not on any identified bike local routes. There are no identified scenic resources, scenic assets or views that the project will affect the project.

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2. The Quechee Analysis

2.1.B Is the Project's design compatible with its surroundings?

The project design consists of solar panels and support structures, equipment pad and utility boxes perimeter fencing, gravel access roads of a total length of approximately 300 feet. It has been carefully sited to have a minimum footprint as possible at 10.9 acres out of the total property size of 26 acres.

The footprint has been designed to fit within the existing landscape pattern of the site with minimal alteration and retains and protects the buffer.

However, it can be concluded that the project introduces a new type of use – renewable energy generation that reflects the design and patterns of a solar energy facility and the solar industry. Structures and photovoltaic panels and related components do introduce new elements not currently present in neighborhood. The project, as proposed, does physically fit within the site due, in part, to its lack of extensive visibility coupled with the retention of the existing landscape patterns.

2.1.C Are the colors and materials selected for the Project suitable for the context within which it is located?

The colors of the solar panels and support structures are not objectionable in and of themselves and reflect typical industry colors and materials for these types of projects and components. They are relatively subdued in color and not objectionable in and of themselves to look at. The dark colored panels will diminish in visibility at certain times of the day and neither the gray color of the frames nor posts will be unsuitable for the project context.

2.1.D What is the Project's impact on open space?

The project does not affect any conserved lands or open space identified for public use or future conservation. It is proposed to be constructed on an existing privately owned field that has been used recently for cropland. The land is not connected to or part of any active farm operation or farm. Thus the project will have no impact on any identified or publicly accessed open space.

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2. The Quechee Analysis

2.1.E Where is the Project visible from? This project is not proposed to be sited in a highly visible location. The only areas that will have visibility of the project site are in the immediate environs of the project site along Park Street Extension and Country Club Road where they parallel the project site. Views of the project from these roads are limited to about 1100' along Park Street Extension and about 1500' along Country Club Road. There will be no mid or long distance views of this site from surrounding areas of the town due to the extensive forest cover in the project environs. There will be potential views of the project (mitigated or eliminated by proposed screening and hedge and tree plantings) from :

- 2 homes and an Masonic Lodge in a commercial building on Park Street Extension

- 4 homes on Country Club Road The closest being about 250' from the nearest proposed solar array on the southeast corner of the project site, and
- partial views from the multi-unit housing complex on Bryant Circle.

2.1.F Conclusion to the First Step of the Quechee Analysis

This project's overall fit, lack of extensive or long distance visibility, and the character of the landscape accommodates the project well. The project also works well here given the lack of sensitive or unique or outstanding scenic resources. It does pose a change in the landscape from existing conditions, and will introduce a new element into the neighborhood. This fact, along with the potential visibility of the project (pre-landscape mitigation) can lead one to a conclusion that the project will result in a minimally adverse impact to the aesthetics of the project area.

2.2 The Second Step of the Quechee Analysis

2.2.A Does the Project violate a clear written community standard intended to preserve the aesthetics or scenic, natural beauty of the area?

*"In order for a provision to be considered a clear, written community standard, it must be 'intended to preserve the aesthetics or scenic beauty of the area' where the proposed project is located and must apply to specific resources in the proposed project area."*³

³ In Re Halnon, NM-25, Order of 3/15/01 at 22 n.5.

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2. The Quechee Analysis

In evaluating whether a project violates a clear written community standard, which directly addresses aesthetics or a scenic resource under the Quechee test, the PUC routinely looks to the town and regional plans for providing these standards. If the PUC finds that such standards do exist, and that the project as designed would violate those standards, the adverse impact would be undue.

The Project is located in the Town of Brandon and under the purview of the Rutland Regional Planning Commission (RPC). A review of the 2016 Brandon Town Plan and the 2015 Rutland Regional Plan yields the conclusion that the Project will not violate a clear, community standard intended to preserve the aesthetics or scenic beauty of the area in accordance with the Quechee test.

Regional plans, in general, contain overriding goals, policies, and recommendations, which are characteristically advisory and non-compulsory in nature. Statements are usually made in terms of "encourage," "support," "promote," and "should," terms that in Quechee analysis cases have been determined to constitute non mandatory language. Regional plans, as a matter of policy, focus on broader issues that affect the region as a whole and typically do not consider impacts on an individual town. The Rutland Regional Plan discusses the importance of aesthetics and scenic qualities of the region with regard to a number of planning topics, including future land use, development patterns, and recreation. Chapter 14: Wildlife and Natural Habitats describes the Rutland Region as having *"an abundance of highly scenic resources thanks to a landscape that is dominated by rugged mountain ranges, clear streams, and fertile valleys..."* (p. 128). Additionally noted in Chapter 12: Recreation & Open Space is that, *"The quality of many outdoor recreational experiences is dependent upon the health of the natural environment, continuance of open space, provision of aesthetically pleasing landscapes and the degree to which the environment has been altered by human activity"* (p. 110), and in Chapter 13: Agriculture and Forestry, *"Active farmlands provide open space and scenic views as well as a land use tradition characteristic of rural Vermont"* (pg. 126). To preserve these areas of scenic value, the Plan provides a goal for new development that states *"No land development should be promoted where the effect of the proposed use unnecessarily impacts highly scenic landscapes, ecologically sensitive lands, or irreplaceable natural resources,"* and should *"be of a design that is compatible with surrounding land uses."* (pg. 134) While these statements point out the importance of addressing scenic and visual resources within the region, the Plan does not provide clear standards for the area within which the Project is proposed. As previously noted, these

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are broad goals that are not targeted to specific areas, and the Plan does not identify this site in particular as a “highly scenic” area.

The plan also includes *Proposed Regional and Community Standards for Energy Facilities Siting & Development (for Regional and Municipal Plans and Act 250/Section 248 Proceedings)*, the introduction to which reads, “To carry the most authority in a PSB proceeding, a municipal or regional plan must be clear, specific, and consistent in expressing community standards. A plan must be unambiguous on stating a community’s position on the development of energy facilities. A collaborative approach shall be used to ensure there is a thoughtful planning process that includes input from the region and the municipality and encourages developers to involve regional and municipal officials as early as possible” (p. 160). The section contains specific standards for energy transmission and generation facilities, which include information about access, light pollution, noise, emergency contact information, historic preservation guidelines, and compliance with local bylaws. The standards also state, “Any proposed facility shall consider the cumulative impact of land use aesthetics, property values, and landowner compensation for multiple energy generation and transmission facilities.” There are also standards specific to Solar Electricity Facilities which provide support for re-use of brownfields sites, guidance for locating inverters and support structures, and a general siting guidance that reads, “The facility is designed to reduce visibilities from the road with setbacks and screening.” (p.160)

The Project has been sited and set back from the road to comply with state standards and a substantial screening plan has been developed to mitigate views of the Project. Thus, to this end, the general goals of the Regional Plan will be met and it can be concluded that there are no clear written community standards that the Project violates.

While it is important to consider relevant regional policies in this Quechee analysis, one must also consider specific standards provided in the local town plans. The 2016 Brandon Town Plan describes the Rural Development district, in which the project is located, as “lands that have been determined to be unsuitable for extensive development because of their ecological or topographical characteristics, the unavailability or inadequacy of public infrastructure, or reduced growth planning considerations. The minimum number of acres per dwelling unit in the Rural Development is two.”(p.68)

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2. The Quechee Analysis

The Brandon Town Plan describes the aesthetics and scenic qualities of the town in a number of different sections of its Town Plan. Near the beginning there is a section titled *Planning and Property Rights* that discusses viewer experience of aesthetics and the visual environment (p.9), "Aesthetics is also recognized as a legitimate public interest. "Aesthetic and environmental wellbeing, like economic wellbeing, are important ingredients of the quality of life in our society, and the fact that particular environmental interests are shared by the many, rather than the few, does not make them less deserving of legal protection through the judicial process. This is important because aesthetics has been found to be one of the main things that attracts and binds people to a community." The Plan describes the town's scenic resources as "including farms, open pastures, woodlands and streams, as well as historic homes, barns, inns and towering church spires" (p.53) and goes on to state that, "a number of elements, such as tree-lined streets, green space and parks, sidewalks, flower gardens, and park benches all add to the quality of life in Brandon". The Plan also references the scenic qualities of shorelines and streambanks, as well as visible mountaintops and ridgelines (p.54) and identifies "the Green Mountains as having scenic value. (p.48). However, the Town Plan does not include reference to any specific scenic resources nor does it provide specifically for protection of any scenic resources.

The Energy Section of the Plan includes a number of goals (p.22) including, "to address to the fullest extent possible at the municipal level, the needs of the community, while promoting conservation, as well as patterns and densities of land and energy use to promote a healthy, affordable and resilient Brandon"; "to become zero-net-energy municipality by 2020"; "to protect Brandon's nonrenewable historic and scenic resources while contributing to the State's goal of a renewable energy future". Other excerpts related to solar generation projects can be found in the section on Conservation & Distributed Generation, which states, "Brandon's geography lends itself well to small (residential, farm, or business) and community solar installations. It is anticipated that the growth of solar energy's popularity in Vermont will be mirrored in Brandon"; and an Energy Action Step to establish "one or more solar-powered electric-car-charging stations in the Central Business District and Forest Dale through state Electric Charging Station grants" (p. 28) The Plan thus recognizes the statewide planning context for renewable energy and sets goals specific to the Town in meeting its residents' energy needs.

Additionally, the Brandon Town Plan contains a comprehensive section on the Siting of Solar Energy Facilities which describes the purpose for the section as such: "Most sections of this Plan contain policies, goals, and action steps that affect the siting of new

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solar electricity-generation facilities, proposed system upgrades, associated access roads and utility lines, and site clearing in preparation for such development ("solar projects"). For the convenience of the municipality and developers, this section distills those policies, goals, and action steps into the following list" and goes on to state "to comply with this Plan, solar projects must meet the following criteria". The criteria for Aesthetic Impact (#8) states that, "All solar projects shall be sited and screened so as to avoid adverse aesthetic impact." The list goes on to provide the following criteria,

- a. In utilizing the so-called "Quechee Test", the "average person" shall be defined for these purposes as the Brandon Planning Commission and the Brandon Select Board.
- b. Large projects shall be located in areas below the horizon from public and private vantage points and adhere, at a minimum, to the setback requirements set forth in Act 56 and all other applicable law.
- c. Where not screened by topography or buildings, solar projects shall include screening consisting of native plantings that will reach a height sufficient to hide them from view within five years of installation. Existing vegetation shall be maximally utilized for such purposes.
- d. Gateways. Because Brandon's tourism economy depends on its historic development pattern and the aesthetics derived from that pattern, large projects shall not be sited within the viewshed of drivers on Route 73 or Route 7.

The proposed Project meets the criteria set forth for the Aesthetic Impacts, and as such, it can be concluded that the Project does not violate a clearly written community standard. One issue that should be noted with regard to evaluating aesthetic impacts is the definition, in the Brandon Town Plan, of the "average person" as the Brandon Select Board or Planning Commission. This definition is not applicable for projects being reviewed under Section 248, which defines an "average person" as a typical person without any preconceived notions or opinions or having any potential interest in project approval or denial. This "typical person" definition is the test that the regulatory authority must use when making decisions under the Section 248 process.

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2. The Quechee Analysis

In conclusion, while many aspects of the Regional and Town Plans indicate an intent to preserve rural character, scenic views, and important landscapes through broad goals and policies, there are no specific standards that explicitly protect identified aesthetic resources, or that specify the Project area as a scenic resource, thereby concluding that the Project will not violate a clear written community standard intended to preserve the aesthetics or scenic beauty of the area in accordance with the Quechee test.

2.2.B Does the Project offend the sensibilities of the average person? Is the Project, when viewed as a whole, offensive or shocking, because it is out of character with its surroundings, or does it significantly diminish the scenic qualities of the area?

Solar projects have become more visible throughout the Champlain Valley due to amenable topography, open fields and readily available electrical connections. Individuals, communities and companies have adopted solar energy as a means of locally generated power, and this trend is consistent with state and societal goals to transition to renewable energy sources. Thus it is less likely that solar projects of this scale and smaller are apt to offend or shock the average person. That is not to say that all such projects are exempt from the potential to offend the average person, but that result hinges on a number of factors including the site, the surrounds and the mitigation measures employed. Additionally, there are individuals who do not find the view or sight of specific solar projects to be pleasing, and in some instances the abutters of such projects may find the prospect of change on adjacent properties to be disconcerting, if not offensive. But the average person is not an abutter and the test under this criterion has to consider a broader public view and sentiment.

The location of this project, its reasonable fit within the existing patterns of the landscape and the lack of any effect on sensitive or identified scenic resources in the project area and the typical, rather than scenic landscape character, limits both the exposure and potential impacts of the project to the average person or viewer. This fact, coupled with the emerging "solar landscape" of the Champlain Valley that is increasingly visible to the public, for better or for worse, reduces, if not eliminates, the potential for a project such as this to be offensive or shocking. Therefore it can be concluded that the Babcock Solar Farm, as proposed, will not offend the sensibilities of the average person.

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2.2.C Has the applicant taken generally available mitigating steps which a reasonable person would take to improve the harmony of the proposed Project with its surrounding?

The selection of an appropriate site is the first factor in the consideration of mitigation measures. This is an important step because the characteristics of the site, coupled with the project layout and components often determine the extent and nature of the mitigation measures required. The site selected has similar attributes to other successfully developed solar projects in the Champlain Valley. This project takes advantage of a site that is relatively level or south/southeast facing, is open and has some built in screening and buffers which reduce the overall visibility and visual presence of the project. Its location adjacent to a town road and an electrical line means that the project access road length and development is kept to a minimum and there is no need to develop a separate connector line to reach the electrical distribution/transmission network. The topography and layout of the project and the vegetation and topography of adjacent properties are such that effective screening either already exists or can be implemented to substantially reduce the visibility and visual presence of the project once it is constructed.

The multi-unit housing on Bryant Circle to the north, as well as the single-family residence to the north on Country Club Road are already partially or completely screened and will be further buffered by the proposed screening. The two homes on the east side of Country Club Road are sited somewhat above the project and not directly opposite from the arrays in the eastern most field and the property frontage. One home to the southwest of the project site off of Park Street Extension is partially screened currently from the site and will be further screened with the proposed mitigation plantings. The Masonic building on the same road is oriented towards its parking lot and will be screened by proposed plantings as well. Along Country Club Road and Park Street Extension the project will be screened by the proposed Willow hedge as well as de-emphasized and screened by the line of street trees (which will be an aesthetic enhancement as well along these roads.) It has been found on other projects such as solar arrays and transmission lines that street trees provide a focal point and visual buffer that reduce the visual presence and effects of such projects to both neighbors and the traveling public.

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Importantly, the Project is implementing significantly more aesthetics mitigation measures than other similar solar projects that have been approved under the Section 248 process. Specifically, the Otter Valley Solar project, located in the Town of Pittsford, Rutland County, Vermont, is very similar to the Babcock Solar Project: the projects are the same size, the both are located on sites at the intersection of low-traffic roads, they are both located in Rutland County, and they both have a small number of residential homes adjacent to them. The Otter Valley Solar Project implemented virtually no aesthetics mitigation measures and received approval under the Section 248 process. Babcock Solar Farm, LLC is taking a much more proactive approach with respect to project aesthetics by proposing a significant amount of aesthetics mitigation to ensure the Project becomes harmonious with its surroundings.

The key mitigation measures overall include:

1. Dense, continuous hedgerow screening for all visible portions of the solar array. (See Landscape Mitigation Planting Plan)
2. Evergreen screen plantings and street tree plantings as part of the overall mitigation measures. The applicant intends to use native and/or naturalized plants sourced in Vermont and used typically in mitigation plantings for other similar solar projects. (See Landscape Mitigation Planting Plan)
3. Siting and layout to avoid all but minimal road construction and the need for a separate electrical connector line that many projects require.
4. Minimal clearing of existing woodlands and retention of woodland and vegetative buffers so as to maximize solar exposure and viability of the panels while leaving existing patterns in place to reduce the visual presence of the project.
5. Underground electric lines to connect with the existing utility pole at the project's northeast corner.
6. Stockpiling of prime agricultural soils, limiting the footprint disturbance and using a construction approach that will allow the return of the site to agricultural use, if desirable.
7. Panel orientation and vegetative screening to minimize or reduce any offsite panel glare or reflection from metal elements and/or support structures.

With these measures as proposed and in place, it can be concluded that the Project has employed generally available mitigation measures that a reasonable person would take to improve the harmony of the proposed Project with its surroundings.

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2.3 Overall Conclusion of the Quechee Analysis

In conclusion, and based on the foregoing analysis, the Babcock Solar Farm, and its 2.2 MW Photovoltaic Array and the associated components, as proposed, will not result in an undue adverse impact on aesthetics or the scenic beauty of the area.

3. Orderly Development

3. Orderly Development

Orderly development refers to the systematic planning and development of land uses and associated infrastructure in a region or municipality. It is based on a legal process that sets forth land use parameters and regulations to guide future development in a pattern envisioned and adopted by the jurisdictional authority. In reviewing projects for their consistency with the orderly development of the region, the onus is on the Applicant to provide the basis for concluding that the project, as proposed, is consistent with the accepted and established provisions and patterns of development in the town and the region. In addition, any evaluation of Orderly Development must assess the land use and landscape dynamics "on the ground". The project may or may not fit well with surrounding uses and/or conditions. The nature of the landscape may have distinct limitations or environmental or aesthetic "costs" related to development.

Before the Public Utility Commission issues a certificate of public good for an electric power project such as the Babcock Solar Farm the PUC must make positive findings that the project will not "unduly interfere with the orderly development of the region":

... with due consideration having been given to the recommendations of the municipal and regional planning commissions, the recommendations of the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. (30 V.S.A. § 248(b)(1))

The Babcock Solar Project follows the aforementioned prescription of Brandon's Future Land Use Plan, as presented in foregoing the Quechee Analysis to focus development of solar projects in areas that are consistent with the current development pattern. Additionally, the siting of the proposed project is consistent with Town Plan language at page 11:

"Brandon's geography lends itself well to small and community solar installations. It is anticipated that the growth of solar energy's popularity in Vermont will be mirrored in Brandon."

The proposed site is not in a far flung, undeveloped or highly scenic area of the community – it will be within the ongoing development area of Brandon Village and not inconsistent with the variety of land uses that exist within the area, including at least 2 solar projects already in place. See Figure 4; Project Context for the project's relationship to surrounding land uses. The project as proposed has no impact on the provision of or planning for conservation measures in the Town of Brandon. It does not comprise "a significant tract of undeveloped land" (Town Plan at page 23) nor does it impact a "regenerating natural area". It does not counter any specific goal of the Town Plan and its development intent and, in fact, can be construed as consistent with the

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following Goal statement on page 66 of the Plan under Future Land Use:

“To encourage strategic growth and economic development while protecting existing natural, scenic and historic resources”.

This project does fit within this general statement insofar as it proposes economic development and provides an energy supply which will power future development, while avoiding impacts to any scenic or historic resources and protects the natural features within the project site that are necessary and that are required to be protected.

The Rutland Regional Plan has several sections which speak to the logic of this project's development and its siting:

Chapter 3 Future Use of the Land, p. 27:

Goals

- To protect the natural environment and its economic, ecological, sociological, psychological and aesthetic benefits.
- To promote competitive and sustainable agricultural, forestry, mineral extraction, and other practices that make use of the Region's natural resources.
- To protect the natural environment and its economic, ecological, sociological, psychological and aesthetic benefits.

Additionally, the Rutland Regional Plan also includes the following forecast for expected changes in landscape on page 25:

“FUTURE TRENDS The slow transformation of the landscape will likely continue. Uses of agricultural lands will evolve to meet changing demands.”

The Rutland Regional Plan does not preclude the siting or development of the project within this type of location and as with most regional plans provides recommendations with regard to supporting renewable energy and local plan provisions. In this regard, the proposed Babcock Solar Project is consistent with Plan sections on Transmission and Generation Facilities and Solar Electricity Facilities and the overall support for developing local energy supply and the economic benefits, such as jobs, that such energy

Assessment and Review of Aesthetics and Orderly Development for the Proposed Babcock Solar Project

3. Orderly Development

development provides: "In a few years time, Vermont and the Rutland Region have become a national leader in solar energy, adding more solar jobs per capita than any other state in 2013." (Emerging Economic Sectors, p. 46.)

In conclusion, the Babcock Solar Project is consistent with land use provisions of both the Brandon Town Plan and the Rutland Regional Plan in terms of Orderly Development. There is no impact on any current or proposed local or regional conservation measures and no interference with any specific local or regional recommendations regarding the proposed land use for this particular site. Thus it can be concluded that the Brandon Solar Project, as proposed, will not interfere with the Orderly Development of the Region

4. Final Conclusion

4. Final Conclusion

The Babcock Solar Project, as a whole, represents a reasonable and effective approach to developing a solar project within the evolving land uses of the town of Brandon and Rutland County. The development of solar projects of this scale, as well as both smaller and larger installations are becoming a more typical land use type in this region of Vermont and in similar valley locations that afford amenable sites and more hours of sunlight.

The site selected for the project is not highly scenic and does not have any unique aesthetic characteristics. The project, as proposed and designed, is only visible from the immediate surrounds – the adjacent properties and the 2 roads bordering the property - and will not have any effect or impact on any identified scenic or historic resources, or conservation lands. It does not violate any clear community standards in the Town Plan, will not shock or be offensive to the average person. Additionally, the applicant has taken extensive steps to reduce the project's visibility and provide effective, reasonable and comprehensive mitigation measures to better fit the project both within the site and the community.

The location of the project as part of the perimeter of Brandon Village and its proximity to electrical transmission is consistent with the provisions of Orderly Development. It will have no effect on any local or regional conservation measures or initiatives, or existing conserved lands. The development of solar energy on this site makes sense – there will be no scenic impacts, no major changes to the property's character, and effective plans to screen the project and enhance the neighborhood roadscape have been proposed. Thus it can be concluded that the proposed Babcock Solar Project, if constructed, will not result in an undue adverse impact on the aesthetics and scenic beauty of the area, and will not interfere with Orderly Development of the Region.



1. Panorama of site from intersection of Park Street Ext. and Country Club Rd.



2. View looking southwest down Park Street Ext.



3. View looking north from site



4. View to north - Units at Country Club Estates are currently screened or partially screened by existing vegetation in leaf-off conditions.



5. View looking south along Country Club Rd across project site. This portion of the site will be left open and undeveloped.



6. View of project site / western field with woodland buffers on both sides. The nearest panels of the project will be set back between 50' and 320' from Park Street Ext.



7 / 8. Views of adjacent residences across Country Club Rd from project site.



9. View looking west at existing woodland to remain. Second portion of project will be located behind this landscape buffer.

LandWorks

Landscape Architecture
Planning
Graphic Design

228 Maple Street
Middlebury, VT 05753
802.388.3011
www.landworkart.com

Babcock Solar Farm Brandon

381 Country Club Road
Brandon, VT

DRAWN BY:

CHECKED BY:

DATE: August 03, 2018

PROJECT NUMBER:

REVISIONS:

SCALE:

Draft For Review

DRAWING NAME:

Project Site
Photo Inventory
& Visibility

DRAWING NUMBER:

100



Numbers on this page are keyed to the Photo Inventory on Sheet 100.



Photo Location



Area of Potential Project Visibility

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Landscape Architecture
Planning
Graphic Design

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& Visibility

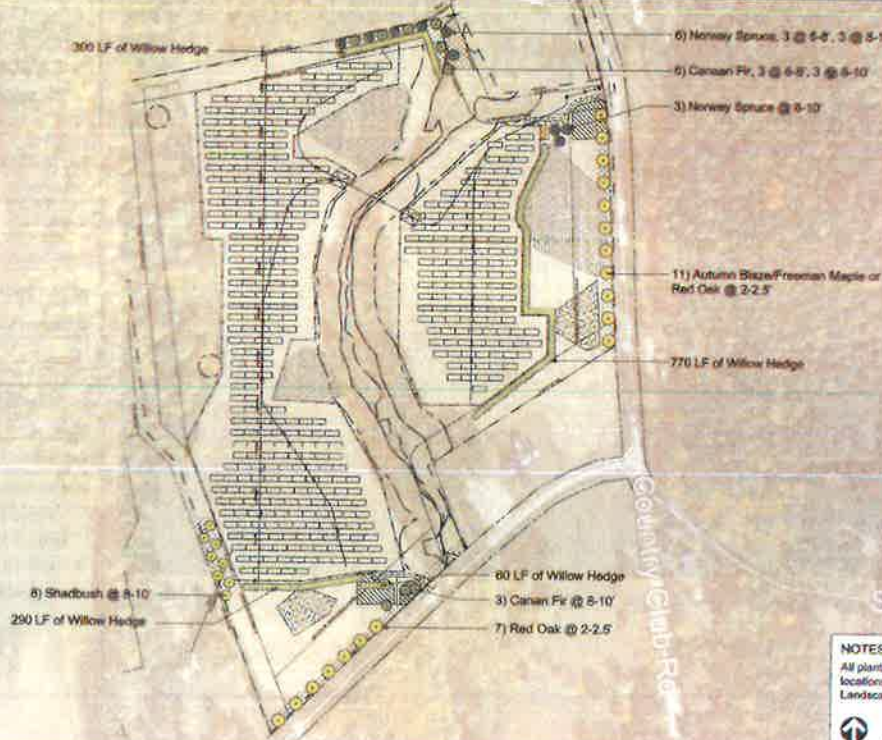
DRAWING NUMBER:

101

PLANT SCHEDULE

SYM	QTY	BOTANICAL NAME	COMMON NAME	INSTALL SIZE	CONDITION	MATURE HT	MATURE SP	COMMENTS
TREES								
9	1	<i>Abies balsamea</i> 'Princeton'	Canoe Fir	3 @ 6-8" Cal / 1 @ 5-10"	BAW or Cont	45-75'	20-25'	low branching
11	1	<i>Acer x freemanii</i> 'Autumn Blaze'	Autumn Blaze Freeman Maple	2-2.5" Cal	BAW or Cont	40-60'	30-40'	low branching
8	1	<i>Amelanchier canadensis</i>	Shadbush / Serviceberry	6-10" Cal	BAW or Cont	15-20'	10-20'	multistem
3	1	<i>Picea abies</i>	Norway Spruce	6-8" Cal	BAW or Cont	40-60'	25-30'	low branching
7	1	<i>Quercus rubra</i>	Red Oak	2-2.5" Cal	BAW or Cont	40-60'	50-75'	low branching
SHRUBS								
2,840	1	<i>Salix miyabensis</i>	Japanese Willow	2" Length	Live Stake	12-15'	10-15'	Plant in Spring

* Can be substituted with Cornus Flaccidissima / Gray Dogwood



NOTES:

All planting locations are approximate only. Final plant locations to be in field with review of project Landscape Architect.



LandWorks Landscape Architecture Planning Graphic Design

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Babcock Solar Farm **Brandon** 381 Country Club Road Brandon, VT

DRAWN BY: LT

CHECKED BY: DR / NS

DATE: August 03, 2018

PROJECT NUMBER:

REVISIONS:

8/3/18 Added Utility Poles

SCALE: 1" = 200'

Draft For Review

DRAWING NAME:

**Landscape
Mitigation Plan**

DRAWING NUMBER:

103

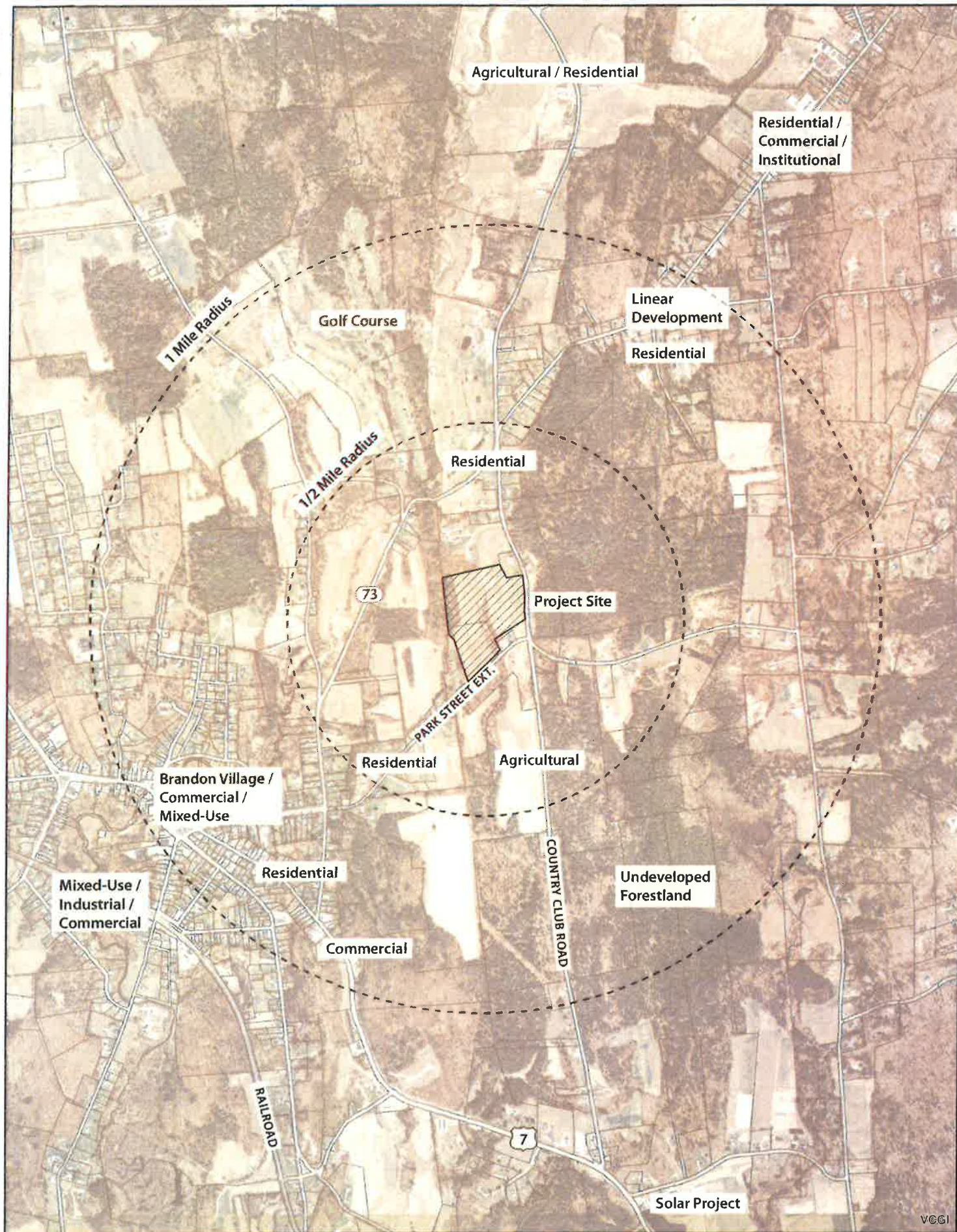


Figure 4: Project Context Aerial

