



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

CERTIFIED MAIL RETURN RECEIPT REQUESTED

November 13, 2015

Philip M. Small, Esq.
Brown Rudnick LLP
185 Asylum Street, 38th Floor
Hartford, CT 06103

RE: **PETITION NO. 1192** - SolarCity Corporation petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed construction and operation of a 2.74 Megawatt Community Shared Solar Photovoltaic Electric Generating facility located on two City of Norwich-owned parcels on Rogers Road, Norwich, Connecticut.

Dear Attorney Small:

At a public meeting held on November 12, 2015, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need, with the following conditions:

- The Petitioner shall provide a copy of the completed professional cultural resource assessment and reconnaissance survey;
- The Petitioner shall provide a copy of the final approval from DEEP for SolarCity's Post Closure Use Plan for the landfill facility;
- The Petitioner shall provide a copy of the final determination of DEEP Application for Disruption of Solid Waste Disposal Area;
- The Petitioner shall provide a copy of the final municipal approval for SolarCity to assume responsibility for the maintenance of the landfill cap and inspection within the limits of the solar field area;
- The Petitioner shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the City of Norwich for comment and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) A final plan of site development to include specifications for the solar panels, supporting infrastructure, electrical equipment, equipment compound, access and maintenance roads, utility connections, and landscaping;
 - b) Construction details for site clearing, site phasing, grading, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended;
 - c) A final Drainage Report and associated site plans stamped by a Professional Engineer;
 - d) Incorporation of a Wetland Protection Program as provided in Petition Exhibit 2, Appendix G;



CONNECTICUT SITING COUNCIL

Affirmative Action / Equal Opportunity Employer

- e) Construction work hours and days of work;
 - f) Incorporation of Wildlife Habitat Enhancement Measures, dated September 2015;
 - g) Identification of an environmental monitor for the project; and
 - h) A facility decommissioning plan.
- Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
 - Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the City of Norwich;
 - Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
 - The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;
 - This Declaratory Ruling may be transferred, provided the facility owner/operator/transferee is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and
 - If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated September 18, 2015.

Enclosed is a copy of the staff report on this petition, dated November 12, 2015.

Very truly yours,

A handwritten signature in blue ink that reads "Robert Stein" followed by the initials "LMB" in a smaller, slightly larger font.

Robert Stein
Chairman

RS/CH/lm

Enclosure: Staff Report, dated November 12, 2015

c: The Honorable Deb Hinchey, Mayor, City of Norwich
John Bilda, Acting City Manager, City of Norwich
Peter Davis, City Planner, City of Norwich
Elie Schecter, SolarCity Corporation



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

www.ct.gov/csc

Petition No. 1192
SolarCity Corporation
Rogers Road, Norwich
Staff Report
November 12, 2015

Introduction

On September 18, 2015, SolarCity Corporation (SolarCity or Petitioner), in development partnership with Brightfields Development, LLC (Brightfields), Norwich Public Utilities (NPU), the City of Norwich and the Connecticut Municipal Electric Energy Cooperative (CMEEC), submitted a petition to the Connecticut Siting Council (Council) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the construction and operation of an approximately 2.74 Megawatt Solar Electric Generating Facility on two municipally-owned parcels on Rogers Road, Norwich.

Council member Robert Hannon, as well as Council staff members Fred Cunliffe and Cymon Holzschuh, visited the site on October 21, 2015 to review the proposal. Also present were Rob Miller, Mike Singer, Dan McKay, Matt Gustafson, Paul Platt, and Attorney Philip Small, representing the Petitioner, two individuals from the press, and Pat McLaughlin, representing Norwich Public Works, the property owner.

The Petitioner notified the City of Norwich as well as abutting property owners of the proposed project. No abutters attended the field review. By letter dated October 6, 2015, Peter Davis, Norwich Director of Planning & Neighborhood Services, expressed support for the project.

Municipal Consultation

Prior to the submission of the Petition to the Council, Brightfields met with the City of Norwich's Mayor, Deb Hinchey, on Friday, July 25, 2014 at City Hall in Norwich, Connecticut to introduce the project team and concept. Also present at that meeting were Alan Bergren, the City Manager at the time, and John Bilda, General Manager of Norwich Public Utilities. On August 4, 2014, representatives of Brightfields gave a general presentation to the Norwich City Council to discuss the company's experience, community shared solar facilities, and its partnership with the CMEEC. On August 25, 2015, Brightfields also met and had further discussions with Peter Davis, Norwich Director of Planning & Neighborhood Services, regarding the specifics of this Site.

Public Benefit

The project would be a "grid-side distributed resources" facility, as defined in Connecticut General Statutes (CGS) § 16-1(a)(43). CGS § 16a-35k establishes the State's energy policies, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum extent possible." The 2013 Connecticut Comprehensive Energy Strategy emphasizes low- or no-emission sources of electric generation and development of more distributed generation, which the proposed facility is. The proposed facility would contribute to fulfilling the State's Renewable Portfolio Standard as a zero emission Class I renewable energy source. The Petitioner intends to complete construction twelve weeks after commencement.

Proposed Site

The project is located on two adjacent parcels - one to the north of Rogers Road, and one to the south of Rogers Road, both owned by the City of Norwich. The combined parcels total 98.3 acres and are located approximately three-quarters of a mile from the Bozrah town line to the west, and approximately 1.5 miles from the Franklin town line to the north, west of Interstate 395 and south of Route 2. Both parcels are identified in City of Norwich Tax Assessor records as located within Residential zones. The project would consist of four solar array locations that occupy approximately 10.8 acres of the total 98.3 acre parcel.

The parcel to the north of Rogers Road is a 75 acre parcel containing the City's active transfer station, a closed bulky waste landfill and a closed solid municipal waste landfill. There are a number of structures and paved/concrete areas on this parcel associated with the transfer station. The parcel to the south of Rogers Road is a 23.3 acre undeveloped, cleared parcel. The majority of the project area consists of open and actively managed land that has experienced historic disturbances associated with landfill activities or cultivation of crops.

Proposed Project

The proposed solar array would consist of approximately 8,854 310-Watt Canadian solar panels, each measuring approximately 64.95 inches by 39.05 inches by 1.37 inches. The two solar arrays on the former crop fields would have an RBI Solar post-driven mounting system and individual panels would be placed at a fixed 25 degree tilt to the south, to maximize output. The mounting assemblies holding the modules are built on I-beam foundations that would be driven into the ground, with the rack then constructed on the posts. When the rack is complete, the modules are bolted on to the rack.

The solar arrays on the two former landfills will utilize a ballasted, surface-mounted racking system to ensure that the landfill cap/cover systems are not adversely affected in any way. The ballasted system will be placed directly on the vegetative cover, mitigating any impact on the cap construction. The arrays will be installed using landfill-specific low ground pressure equipment to make sure that the 7 PSI cap/cover loading limit is adhered to at all times. Licensed engineers will inspect the field work regularly to ensure that the construction methodology does not impact the cover/cap system. Additionally, due to the fact that the solar arrays and the associated wiring will be installed on top of the landfill cover/cap, all of the conduit runs will be installed on ballast blocks located above the vegetative surface. This will require that all of the electrical wiring is installed within rigid conduit or cable trays and placed on concrete or rubber ballasts. Once clear of the landfill cover/cap, this conduit will transition to an underground configuration to connect both arrays.

The site would include four Solectria SGI utility scale inverters, of which two would be 500KW and two would be 750 KW. The inverters convert the DC power supplied by the panels into AC power that can be connected to the electric grid. The inverters would be mounted on three, small concrete pads with transformers that are connected to the grid via switch gear - two pads would have one inverter and one transformer, and one pad would have two inverters and one transformer.

The solar arrays on the two former crop fields would be surrounded by a six-foot tall chain link fence. For the solar fields on the two former landfills, no fencing is required due to the steep slopes and the heavily wooded surroundings. For these, SolarCity would install a gate across each access road with 30-foot side panels to restrict access which will, for all practical purposes, restrict access to the landfills and solar arrays. SolarCity does not plan to remove snow from the solar panels. The panels' lower edges are expected to be two feet above ground level, and are expected to generate enough heat to cause the snow to slide off the panel.

Access to the two solar arrays on the former crop fields will be right off of Rogers Road with no access road needed. There will be two paved aprons off of Rogers Road near each of these solar arrays that during construction will lead to a small anti-tracking pad. Access to the two solar arrays on the former landfills will be via existing grass access roads. SolarCity will repair the access roads it uses on this parcel to meet or exceed pre-construction conditions. SolarCity would construct approximately 170 feet of combined new access road for these arrays, as well as a 30-foot diameter gravel turnaround for each.

Upon completion of the facility, SolarCity will assume responsibility for the maintenance of the landfill cap and inspection, as required by The Department of Energy and Environmental Protection (DEEP), within the limits of the solar field area. SolarCity must obtain from DEEP a Disruption Permit and approval for its Post Closure Use Plan for the facility. SolarCity and the City of Norwich are working together to develop documentation to satisfy DEEP's requirements. SolarCity will submit all inspection reports required by the DEEP as a condition of the Disruption Approval to the City of Norwich and DEEP. The stormwater will be handled in accordance with the 2004 *Connecticut Stormwater Quality Manual*.

Environment, Cultural and Scenic Values

The proposed project will consist of approximately 10.8 acres of development, all of which is currently cleared and maintained land, resulting in minimal new ground disturbances. The solar arrays and gravel and grass surfaces associated with the construction of the project will solely alter the small hay field areas present on the site. Hay field habitat on the site totals approximately 21 acres - of which 10.6 acres is proposed as part of the project - but is distributed in small patches which minimizes interior grassland, which is favored for nesting by grassland specialists. Patch size is a critical limiting factor for grassland birds, many of which require a minimum patch size of 25 acres or more. Given the small size of these fields, it is capable of supporting species with a smaller minimum area requirement, but due to the size and configuration of the hay fields at this site, this habitat is not capable of supporting abundant or diverse populations of grassland birds. Some edge effect impacts may occur as a result of the project in proximity to old field habitats with limited slopes on the sides of landfill areas, but this will be minimal.

DEEP reviewed the Natural Diversity Database maps and commented that impacts to any threatened, endangered, or special concern species are not expected at the site. A breeding bird assessment was conducted in July 2015 which focused on high conservation priority species. Two species state-listed as "very important" are potentially present, although not observed at the site - this is because the assessment solely considers habitat type and time of year, without regard to habitat parcel size or suitability.

A narrow strip of land between the perimeter fence and forest edge will be mowed on a rotation basis every four to seven years, to allow the area to revert to late old field and create a "soft" ecotone, and also to prevent shading of the arrays. SolarCity did not commission a Carbon Debt Analysis for this Site as no trees will be cut down during construction of the facility.

There are no public water supply wells proximate to the site and the site is not located within an Aquifer Protection Area. The site also lies outside the 100 year and 500 year floodplain according to the United States Federal Emergency Management Agency's mapping. In addition, no historic districts, features or structures exist at the site or in the vicinity of the site. The State Historic Preservation Office (SHPO) was contacted for comment on the proposed facility. The SHPO responded on August 19, 2015, requesting a professional cultural resource assessment and reconnaissance survey be completed prior to construction. SolarCity intends to complete the requested assessment prior to the start of construction.

A vernal pool survey was conducted on May 7, 2015. A total of five vernal pools were identified. Vernal pool habitats include both cryptic and classic style vernal pools. The solar arrays will be constructed within 750 feet of the vernal pools, and two will be constructed within 100 feet of vernal pools. However, several of the pools have undergone historical anthropogenic influences, and the proposed project configuration is sited entirely within open areas, avoiding any loss of existing forest habitat. As such, it is the belief of All Points Technology that the project will not adversely affect vernal pool wildlife. This conclusion is based on the fact that these habitats consist of cool-season grasses situated on the capped landfill as well as within a sparsely vegetated fallow crop fields; areas which offer little habitat for vernal pool amphibians. Furthermore, the landscape connectivity between pools will not be reduced by roads, development or other fragmentary features in any significant manner.

Four wetland areas were identified at the site, which consist primarily of seasonal intermittent and perennial stream channels, depressional forested, emergent, and scrub/shrub wetlands. The first wetland area is a broad forested wetland located on the eastern portion of the southern parcel – this is the largest of the four wetlands, and has a cover of red maple with an understory of pepper bush. The second wetland area is on the transfer station parcel toward the center and south of the parcel and continues to the center of the parcel south of Rogers Road, and consists of a diverse compilation of varying wetland types including a broad scrub/shrub swamp with bordering forested wetland draining to a perennial stream system with complexes of forested, scrub/shrub habitats. The third wetland area is located on the western side of the transfer station parcel, and is a hillside seep wetland system feeding a narrow intermittent stream channel, forested with red maple dominant forest cover type. The fourth wetland area is located on the eastern portion of the transfer station parcel, and consists of a complex of historically altered and artificially constructed emergent wetland areas and intermittent watercourse drainage swales. Two emergent wetland areas were delineated and consist of broad depressional areas with seasonal shallow ponding.

None of the four wetlands at the site will be directly impacted by the facility. The fence line and electrical conduit routes come in close proximity to wetlands, but will not encroach into the wetlands. The electrical conduit between the two solar arrays south of Rogers Road crosses the first wetland area. This crossing will be completed using horizontal directional drilling (HDD) to eliminate any impacts to the wetland. SolarCity has stated the HDD crossing connecting these two arrays may not be constructed based on the final cost/benefit analysis for the more eastern of these two arrays; however, it is included in the petition for permitting purposes.

Other than the proposed HDD crossing of the first wetland area, the closest construction activities to wetlands or watercourses are associated with two electrical conduit routes within existing travel ways in proximity to the second and fourth wetlands areas on the transfer station parcel. For the second wetland area, where the existing travel way physically crosses a perennial stream, the electrical conduit to the western landfill solar array will be routed underground, within the edge of roadbed where there is sufficient room to install this conduit, and not encroach into the wetland/watercourse. The existing travel way that leads towards the eastern landfill solar array passes within approximately 15 feet of the fourth wetland area, the electrical conduit near this area would also be routed along the ground surface. The resulting activities will have no direct impact to wetland resources.

The wetland protection program consists of several components:

- Use of appropriate erosion control measures to control and contain erosion and sediment;
- Avoiding/minimizing wildlife entanglement;
- Periodic inspection and maintenance of isolation structures and erosion control measures;
- Education of all contractors and sub-contractors prior to initiation of work on the site;
- Protective measures, including petroleum materials storage and spill prevention;
- Herbicide and pesticide restrictions; and
- Reporting any incidents of sediment release into the nearby wetland to the Siting Council.

Once constructed, the solar arrays north of Rogers Road will not be visible from surrounding areas beyond the transfer station due to their remote locations from the road and abutting properties and the existing, dense mature vegetation that surrounds the former landfill. The two solar arrays south of Rogers Road will be visible for short stretches from the intersection of Rogers Road and Wawecus Road, as well as the frontage along Rogers Road. Residents to the south/southeast of the Site along Wawecus Road will not have any direct views of the facility because the project area is buffered by intervening mature vegetation. A decommissioning plan was included in the petition and has provisions for project removal and site restoration.

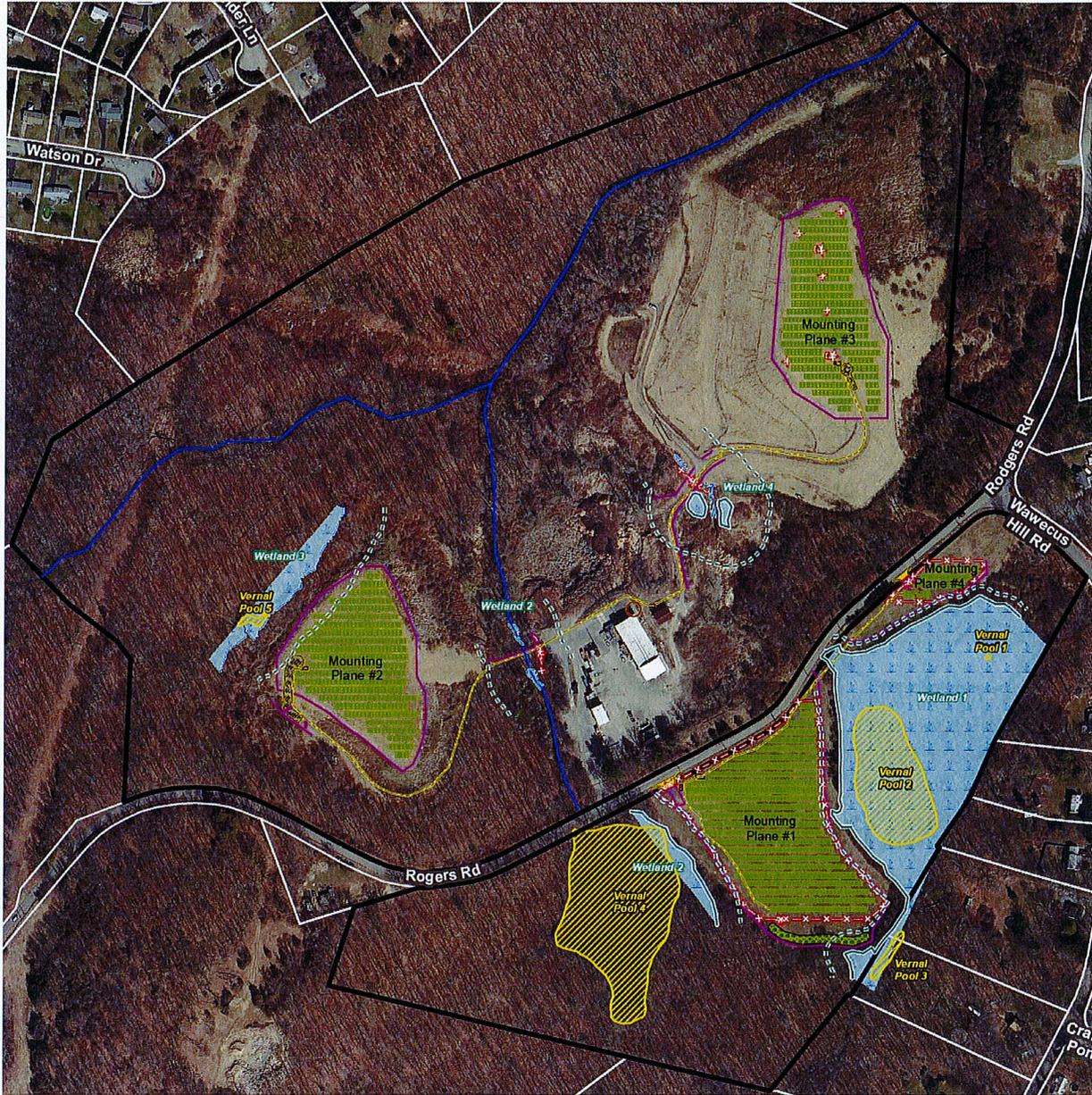
Conclusion

The Petitioner contends that pursuant to CGS § 16-50k(a), the Siting Council shall approve by declaratory ruling the construction or location of “any customer-side distributed resources project or facility or grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Energy and Environmental Protection.” The proposed project meets these criteria. The proposed project will not produce air emissions, will not utilize water to produce electricity, was designed to minimize wetland impacts, will employ a stormwater management plan that will result in no net increase in runoff to any surrounding properties, and furthers the State’s energy policy by developing and utilizing renewable energy resources and distributed energy resources. In addition, as demonstrated above, the proposed project will not have a substantial adverse environmental effect.

Staff recommends approval with the following conditions:

1. The Petitioner shall provide a copy of the completed professional cultural resource assessment and reconnaissance survey;
2. The Petitioner shall provide a copy of the final approval from DEEP for SolarCity’s Post Closure Use Plan for the landfill facility;
3. The Petitioner shall provide a copy of the final determination of DEEP Application for Disruption of Solid Waste Disposal Area;
4. The Petitioner shall provide a copy of the final municipal approval for SolarCity to assume responsibility for the maintenance of the landfill cap and inspection within the limits of the solar field area;
5. The Petitioner shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the City of Norwich for comment and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) A final plan of site development to include specifications for the solar panels, supporting infrastructure, electrical equipment, equipment compound, access and maintenance roads, utility connections, and landscaping;
 - b) Construction details for site clearing, site phasing, grading, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended;
 - c) A final Drainage Report and associated site plans stamped by a Professional Engineer;
 - d) Incorporation of a Wetland Protection Program as provided in Petition Exhibit 2, Appendix G;
 - e) Construction work hours and days of work;
 - f) Incorporation of Wildlife Habitat Enhancement Measures, dated September 2015.
 - g) Identification of an environmental monitor for the project; and
 - h) A facility decommissioning plan.

Site Layout:



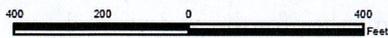
Legend

- | | | |
|---------------------------|-------------------------------------|---|
| Site Boundary | Proposed Fence | Proposed Gravel Drive Improvements |
| Intermittent Watercourse | Proposed Silt Fence | Proposed Paved Apron |
| Perennial Stream | Proposed Solar Modules | Proposed Landscaping |
| Wetland Boundary | Proposed Access Drive | Approximate Assessor Parcel Boundary (CTDEEP) |
| Upland Review Area Buffer | Proposed Underground Electric Power | |
| Wetland Area | Proposed Electrical Equipment | |
| Vernal Pool | | |

**Figure 5
Proposed Conditions Map**

Proposed Solar Facility
82 Rogers Road
Norwich, Connecticut

Map Notes:
Base Map Source: 2012 Aerial Photograph (CTECO)
Map Scale: 1 inch = 400 feet
Map Date: September 2015



BRIGHTFIELDS
DEVELOPMENT LLC



Photo-simulation of the facility from Rogers Road looking southeast:



PHOTO	LOCATION	ORIENTATION
1	ROGERS ROAD - MOUNTING PLANE #1	SOUTHEAST



Photo-simulation of the facility from Rogers Road at North Wawecus Hill Road looking southwest:



PHOTO	LOCATION	ORIENTATION
2	ROGERS ROAD AT NORTH WAWECUS HILL ROAD - MOUNTING PLANE #4	SOUTHWEST

