



**Petition of GRE 314 EAST LYME, LLC**

**for a Declaratory Ruling for the Location, Construction, and Operation**

**of a 5 MW Solar Photovoltaic Renewable Energy Generating Project**

**on Grassy Hill Road and Walnut Hill Road in East Lyme, Connecticut**

**December 17, 2012**

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## I. INTRODUCTION

### A. Purpose and Statutory Authority

Pursuant to Section 16-50k(a) and Section 4-176(a) of the Connecticut General Statutes (“CGS”) and Section 16-50j-38 *et seq.* of the Regulations of Connecticut State Agencies (“RCSA”), GRE 314 East Lyme, LLC (“GRE”) requests that the Connecticut Siting Council (“Siting Council”) issue a declaratory ruling for GRE’s proposed location, construction, operation and maintenance of approximately five (5) megawatts (“MW”) of solar photovoltaic (“PV”) panels, associated ground equipment, an access road, an ancillary building, and an electrical interconnection (together, the “Project” or “Antares Solar Field”) at 40 and 44 Grassy Hill Road, 89 Walnut Hill Road, and Walnut Hill Road Rear in East Lyme, Connecticut (together, the “Property”).

CGS § 16-50k(a) provides:

Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling . . . (B) the construction or location of any . . . 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 . . . .

Pursuant to CGS § 16-50k(a), the Siting Council should approve the Project by declaratory ruling since it is a grid-side distributed resources facility under sixty-five (65) MW that complies with the air and water quality standards of the Connecticut Department of Energy and Environmental Protection (“DEEP”). Further, 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.” As demonstrated from the information included in this petition, the Antares Solar Field will result in no air emissions, have minimal impacts that comply with DEEP’s air and water quality standards, and will further the State’s energy policy by developing renewable energy resources. Additionally, the Project will not have a substantial adverse environmental effect.

## **B. Project Overview**

GRE is part of the Greenskies family of companies. Greenskies is a Middletown, Connecticut company whose mission is to provide low cost electricity to a diverse portfolio of commercial and municipal clients through the development of distributed solar power generating facilities. Greenskies was founded in 2008, and has quickly become one of the most competitive solar integrators on the East Coast. Since its inception four years ago, Greenskies has moved quickly to take advantage of the burgeoning market for solar energy, and has amassed an impressive array of clientele, including Target Corporation and Wal-Mart Stores Inc.

Greenskies is committed to the development of reliable, cost-effective renewable energy, specifically solar energy. As the Council is well aware, renewable energy offers societal benefits which are increasingly recognized with each news story relating to the United States' continued dependence on foreign oil and the environmental impacts associated with fossil fuels. Local renewable energy projects not only provide for economic benefits for the region, they also reduce dependence on foreign fuel sources, reduce or eliminate emissions of pollutants and greenhouse gases, and reduce the environmental harm that can result from the extraction and use of fossil fuels.

The State of Connecticut has recognized the benefits of local renewable energy development and implemented renewable portfolio standard ("RPS") to encourage the development of renewable energy resources not only to lessen the country's dependence on foreign oil but also to reduce the environmental impacts associated with fossil fuel sources. The RPS requires that thirteen (13) percent of electric generation in the State is produced via renewable sources for 2013. By 2020, the State RPS requirements will increase to twenty-three (23) percent, a minimum of twenty (20) percent of which must derive from Class I renewable energy sources such as solar PV. Further, many of the State's cities and towns have pledged to obtain twenty (20) percent of their electricity from renewable sources by 2020.

With the enactment of Public Act 11-80, the State deepened its commitment to the development of renewable energy resources while at the same time ensuring that such development can be done as cost effectively as possible. One way in which the State sought to do this was through the passage of section 127 of Public Act 11-80, which calls for the development of 30 megawatts of renewable energy, including 10 megawatts to be developed from sources other than existing electric distribution companies. On December 23, 2011, the

GRE Project was selected by the Department of Energy and Environmental Protection (“DEEP”) as one of two projects to be constructed by the private sector pursuant to section 127. A copy of DEEP’s Determination of Proposals and Final Project Selection Pursuant to Section 127 of Public Act 11-80 is attached as Exhibit A hereto. As can be seen in the DEEP’s Determination, not only will the Project deliver five megawatts of solar capacity as cheaply as possible, it will also assist the State in meeting its renewable energy goals.

Indeed, the Project will play an important role in the State’s renewable energy goals and provide numerous benefits to the Town of East Lyme. The value of the Project to the East Lyme community is significant and will be long lasting. The Project will provide a significant source of clean, renewable energy produced locally. The Antares Solar Field will produce 100 percent clean, renewable electricity with zero emissions and no water consumption and will result in significant environmental benefits. Further, the Project will act as a peak reducer by producing energy during the electric distribution companies’ peak load hours. The project will therefore help moderate peak load requirements and reduce the demand on interstate transmission lines. The Project has also agreed to commit its qualifying capacity to ISO-NE. Finally, the Project will not only act as a symbol of Connecticut’s commitment to generating clean reliable energy, it will also spur the local economy as it is anticipated that the construction of the Project will involve a total of 50,000 hours of work, which will translate into additional jobs in the southeast portion of the State.

### **C. Key Project Elements**

The Project consists primarily of the construction and installation of over 17,500 photovoltaic modules on approximately 35 acres of the Property and electrical interconnection of the same. Greater detail concerning the anticipated technology to be used in the Project can be found in the redacted DEEP Section 127 Request for Proposal submittal made by GRE in December of 2011, and attached hereto as Exhibit B.

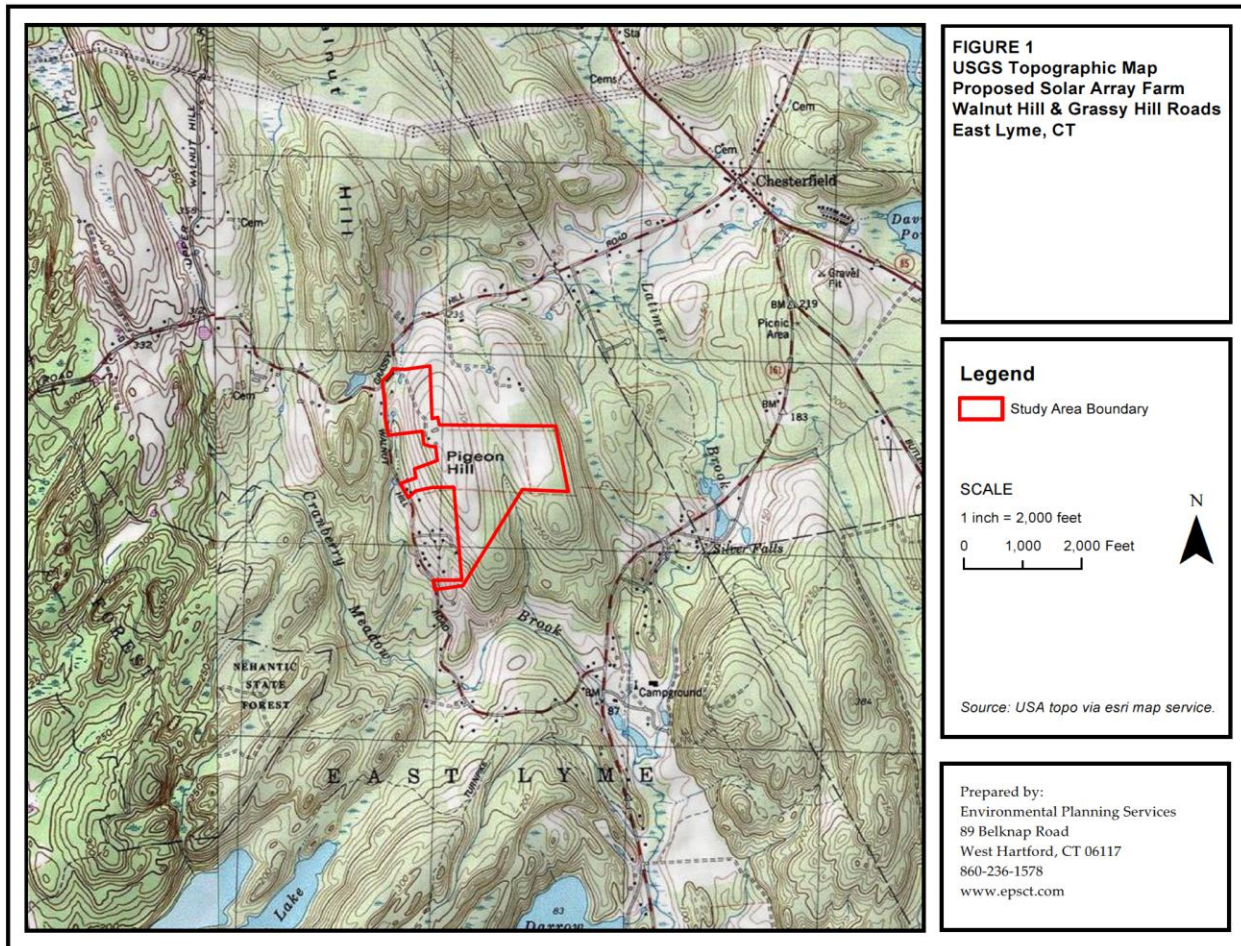
#### ***1. Site***

The Property is located at 40 and 44 Grassy Hill Road, 89 Walnut Hill Road, and Walnut Hill Road Rear in East Lyme, Connecticut, and consists of 75.669 acres in total with



solar panels covering approximately 27 acres. The Property is in a rural district zone, RU-40. The site, depicted in Figure 1, has been vacant for many years. Having been originally intended for the development of residential homes, the land has sat idle since 2008. The properties immediately adjacent to the Property are predominately residential in nature.

**Figure 1. Site Location Map**



## 2. Electrical Interconnection

The Project is proposed to be interconnected to the Connecticut Light and Power Company (“CL&P”) at an existing distribution feeder on the existing distribution system on Walnut Hill Road in accordance with CL&P technical standards and State of Connecticut, ISO-New England (“ISO-NE”), and the Federal Energy Regulatory Commission (“FERC”) requirements. The interconnection will be made pursuant to CL&P and United Illuminating

Company (“UI”) Guidelines for Generator Interconnection and will include Company Scoping, an Application Request, Application Review, a Feasibility Study, a System Impact Study, a Transmission Study, an Interconnection Agreement, Interconnection Authorization, Installation, Commissioning Test(s), and final approval to energize.

### ***3. Community Relations***

Throughout the development of the site, GRE has apprised local officials of its intent regarding the Project. GRE is committed to working with the Town of East Lyme to ensure that the Town as well as GRE, realizes the benefits of the project. GRE has developed a good relationship with the East Lyme community by pursuing a multi-faceted communications approach, including:

- Regular discussions with local officials, including the Town of East Lyme’s First Selectman;
- Providing the Town of East Lyme with a copy of this petition;
- A legally noticed, public informational meeting held in East Lyme on December 5, 2012, which was part of a regularly-scheduled Town Board of Selectmen meeting; and
- Public access to information related to Greenskies on the internet at:  
[www.greenskies.com](http://www.greenskies.com).

In addition, although the Project is not required to obtain local zoning approval(s), it is anticipated that the Antares Solar Field will be consistent with all applicable local regulations including the Town of East Lyme’s zoning regulations, wetlands regulations and plan of conservation and development.

## **II. LEGAL NAME AND ADDRESS OF PETITIONER AND CONTACT INFORMATION**

The legal name of the petitioner is GRE 314 East Lyme, LLC. GRE is a Connecticut limited liability company with a principal place of business in Middletown, Connecticut.

**Mailing address:** GRE 314 East Lyme, LLC  
10 Main Street, Suite E  
Middletown, CT 06457

**Internet address:** [www.greenskies.com](http://www.greenskies.com)

Correspondence and other communications concerning the Project are to be addressed to, and notices, orders and other papers may be served upon the following:

Michael Silvestrini  
GRE 314 East Lyme, LLC  
10 Main Street Suite E  
Middletown, CT 06457  
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Email: [lhoffman@pullcom.com](mailto:lhoffman@pullcom.com)

### **III. DESCRIPTION OF PROPOSED PROJECT**

#### **A. Property Description and Site Selection**

The Property is located at 40 and 44 Grassy Hill Road, 89 Walnut Hill Road, and Walnut Hill Road Rear, which together consist of 75.669 acres. The Property is located in the rural district zone. Currently, the Property is a mix of developed and undeveloped. The Property is abutted by residential properties on the western edge of the Property. A vacant field resides to the north and spacious forest to the south and west.

The Property was selected to the Project based on a number of factors including: 1) a sufficient size to accommodate the solar PV panels needed for the Project; 2) the ability to avoid construction in wetlands, upland review areas or other environmentally sensitive areas; 3) appropriate grading and topography to allow the development of the Project; and 4) proximity to electrical infrastructure and roadways.

As mentioned previously, the Property is currently abandoned and unutilized. Developing the Project on the Property will allow the Town of East Lyme to realize tax revenue on an otherwise vacant piece of property. As such, the development of the Project will result in immediate benefits to the Town of East Lyme without unduly burdening Town resources.

#### **B. Project Description**

The Project consists of the installation of over 17,500 photovoltaic modules, associated ground equipment, an ancillary building, upgrading and installation of an access road, a maintenance path, and an electrical interconnection. It is anticipated that the Project will have an anticipated useful life of 25 years. A copy of the site development plans are included as Exhibit C. It should be noted that the Project will be surrounded by fencing and landscaping so as to minimize visual impacts of the Project from the road and nearby residences. The solar facility operates silently and exclusively uses sunlight as fuel.

##### ***1. The Panels***

The Project consists of over 17,500 photovoltaic modules. There will be eight (8) inverters connected to the panel clusters. Factsheets describing the anticipated technology for the Project are attached hereto as part of Exhibit B.

## **2. Access Road**

The Property will be accessed from Walnut Hill Road. As depicted in Exhibit C, GRE will utilize an existing gravel driveway for access during construction and operation of the Antares Solar Field. In addition, an eight (8) foot wide gravel maintenance path will be constructed around the border of the panels, inside the project fencing, with access isles among the panels at certain points.

## **3. Ground Equipment**

An electrical collector yard will be constructed on the Property. At the point of common coupling with CL&P, GRE will provide a utility class circuit breaker, equipped with a multifunctional relay, to serve as the Interconnection Interruption Device. State-of-the-art anti-Islanding features integral to the UL tested inverters prevent the need for a recloser. Revenue metering will be provided on the utility side of the breaker. A gang operated disconnect switch will be provided on the utility side of the metering. Additional equipment to monitor circuit voltage and to disconnect the facility from the grid will also be installed as needed on existing grid circuits to protect the system during system outage. All interconnection equipment and procedures will be selected and installed according to those tests performed by CL&P, the interconnecting utility. An ancillary building will be constructed on the Property to provide storage and office space for operations and maintenance equipment. The ancillary building will contain restroom facilities and will require an on-site well to meet sanitary and drinking needs. GRE will dispose of wastewater to an on-site septic system designed in accordance with applicable standards to accommodate wastewater loading rates and soil conditions. As a result, GRE submits that its proposed minimal water consumption and disposal will not have a substantial adverse effect on groundwater resources. This construction is necessary for the ongoing operations and maintenance of the Project.

#### **4. *Interconnection***

Interconnection will be made to CL&P's distribution system at Grassy Hill Road in accordance with all applicable CL&P technical standards and State of Connecticut, ISO-NE and FERC requirements. The interconnection will be made pursuant to CL&P's and UI's Guidelines for Generator Interconnection. GRE is fully engaged in the generator interconnection process and has successfully completed a Scoping Meeting, an Application Request, and an Application Review and will commence the Feasibility Study with CL&P shortly. The Feasibility Study includes Circuit Modeling, Power Flow Analysis, Voltage Impact Study, Thermal Impact Study, Short Circuit Study, Review of Distribution Equipment Interrupting Ratings, Protection Coordination Review, Assessment of Transfer Trip Requirements and Review of Protection Schemes. Upon completion of the Feasibility Study, if required by the interconnecting utility, GRE will engage in the System Impact Study and the Transmission Study as final steps for an Interconnection Agreement, Interconnection Authorization, Installation, Commissioning Test(s) and final approval to energize.

#### **C. *Service Life and Capacity Factor***

The solar panels and inverters have an anticipated service life of 25 years. According to the 2012 Integrated Resources Plan for Connecticut, solar PV has an expected capacity factor of approximately thirteen (13) percent.

#### IV. PROJECT BENEFITS

Pursuant to Conn. Gen. Stat. § 16-50p(c)(1), a project provides a public benefit if a project “is necessary for the reliability of the electric power supply of the state or for a competitive market for electricity.” The Project will generate the bulk of its power during the summer electrical peak, thereby providing peaking resources when the state has its greatest need. Moreover, the Project will help foster the state’s goal of developing “renewable energy resources, such as solar and wind energy, to the maximum practicable extent” pursuant to Conn. Gen. Stat. § 16a-35k.

The Project will provide substantial additional benefits to the State of Connecticut and the Town of East Lyme, including:

- Generation of 100 percent renewable energy;
- Energy generation without any air emissions, including greenhouse gas emissions;
- Energy generation without any water consumption or pollution;
- Potential displacement of older fossil fuel generation;
- Increased distribution of generation resources in the state;
- Decreased reliance on the importation of fossil fuels;
- A reliable source of energy that diversifies the State’s generation portfolio mix and contributes Class I renewable energy to meet the State’s renewable portfolio standards;
- Numerous economic benefits to the Town and the area, including significant tax revenue to the Town of East Lyme;<sup>1</sup>
- Creation of jobs; and
- Significant environmental benefits with minimal impact to the land.

Based on a capacity of approximately five (5) MW at a capacity factor of thirteen (13) percent, the Project will generate 6,400 megawatt-hours (“MWh”) of Class I renewable energy. To put this into perspective, the Project is anticipated to provide sufficient power to supply the electricity needs of nearly 750 households. In addition, the Project is anticipated to provide the following reduction of air pollutants when compared to conventional fossil fueled generation:

- 3,532 (lbs/yr) total nitrogen oxides reduction

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<sup>1</sup> While economic issues are not relevant to the Siting Council’s jurisdiction and decision-making criteria, economic benefits associated with the Project are included for illustrative purposes.

- 7,190 (lbs/yr) total sulfur oxides reduction
- 6,332 (tons/yr) total carbon dioxide (greenhouse gas)

The electricity generated by the Project will provide power without carbon emissions equivalent to the following:

- 1,731 cars taken off the road
- 21,069 barrels of oil not combusted for electric generation
- 232,299 tree seedlings grown for 10 years
- 1,932 acres of pine or fir forest

In summary, the Antares Solar Field is an exciting, state-of-the-art project that offers significant economic, environmental, and societal benefits to the citizens of the Town of East Lyme and the State of Connecticut. The Antares Solar Field will generate 100 percent clean, green, renewable energy adding much needed solar-generated electricity to Connecticut's fuel mix and increased access to renewable electricity in the region.



## **V. POTENTIAL ENVIRONMENTAL EFFECTS**

GRE and its consultants, including BL Companies, Centerplan and Environmental Planning Services, conducted a comprehensive environmental assessment of the Project. The Project has been designed to minimize environmental impacts. GRE worked carefully through numerous iterations of potential locations and spacing to balance capturing optimum solar conditions while avoiding or minimizing effects to the existing environment and habitat. In fact, the Project will have minimal adverse environmental impacts including impacts on scenic, historic or recreational values, as mandated by Conn. Gen. Stat. § 16-50g and as discussed in more detail below.

### **A. Public Health and Safety**

The Project represents a clean and safe method of electricity generation in a manner consistent with state and federal policy to protect public health and safety. In terms of public health, the Project will generate electricity in a cleaner and more environmentally acceptable manner compared to conventional generation using nuclear, natural gas, coal, or oil as fuel.

In terms of safety, the Project will meet all applicable safety requirements for construction, operation, and electrical interconnection. Solar PV electricity generation involves no moving parts and does not involve combustion, making it inherently safer than traditional forms of electrical generation.

Furthermore, because the Project will not burn fuel such as natural gas, coal, or oil, there will not be any need to consider release and ignition of combustible fuels at pipelines, compressors, or storage facilities. The absence of combustible fuels for facility operation completely eliminates the risk of environmental damage due to fuel spillage or explosion due to inadvertent ignition of natural gas or other fossil fuels.

Finally, because the Project has neither moving parts nor combustion activities, there is not anticipated to be noise impacts emanating from the Project.

Overall, the Project will meet or exceed all health and safety requirements applicable for electric power generation.

## **B. Local and State Land Use, Conservation and Development Plans**

The Project will be consistent with the State Conservation and Development Policies Plan as well as the Town of East Lyme's local regulations and plan of conservation and development.

### ***1. The State Conservation and Development Policies Plan***

The State Conservation and Development Policies Plan was adopted in 2005 and will stay in effect until 2013 due to recent legislative changes (the "Plan").<sup>2</sup> The Plan highlights six major growth management principles, and the Antares Solar Field is consistent with these overriding principles. Specifically, in reference to the need to redevelop and revitalize regional centers, the Plan notes that "[t]he State of Connecticut imports most of its current energy supply, including oil, coal, natural gas and uranium. In addition, the state continues to be particularly dependent on oil, which is generally imported from foreign countries" and then goes on to delineate the ability to "[s]ecure a sustainable supply of energy at the best possible cost and promote its efficient use" as a policy to further the interests of the citizens of the State. The Plan also advocates a policy to reduce the risk of global climate change by reducing the statewide carbon dioxide emissions to 1990 levels by 2010 and to 10 percent below 1990 levels by 2020 and lists the development and use of renewable energy projects such as solar, hydroelectric, wood and wind as means to accomplish this goal. The development of the Antares Solar Field will be consistent with these goals and will assist in the State achieving the reduction in carbon dioxide emissions delineated in the Plan.

Further, the locational guide map that accompanies the Plan indicates that the area of East Lyme in which the Property is located is either a "conservation area," a "preservation area" or "rural lands." *Id.* at Locational Guide Map for East Lyme. The Plan identifies the goals associated with "conservation areas" as "plan for the long-term management of lands that contribute to the state's need for food, fiber, water and other resources and environmental quality by ensuring that any changes in use are compatible with the identified conservation value." *See* Plan at 6. The Plan identifies the goals associated with "preservation areas" as "[p]rotect significant resource, heritage, recreation and hazard-prone areas by avoiding structural

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<sup>2</sup> Available at [http://www.ct.gov/opm/cwp/view.asp?a=2990&q=383182&opmNav\\_GID=1807](http://www.ct.gov/opm/cwp/view.asp?a=2990&q=383182&opmNav_GID=1807).

development, except as directly consistent with the preservation value.” *Id.* Goals associated with “rural areas” are listed as “[p]rotect the rural character of these areas by avoiding development forms and intensities that exceed on-site carrying capacity for water supply and sewage disposal” and “[e]ncourage development in Rural Lands of a form, density, and location compatible with the carrying capacity of the natural environment, and which avoids the need for large scale and costly urban infrastructure for water supply, waste disposal, and transportation.” *See Plan at 6, 76.*

GRE believes that the development of the Antares Solar Field on the Property – as opposed to the development of multiple residences that could be approved on the Property – is consistent with the goals associated with both preservation areas and conservation areas.

## ***2. Local Regulations and Plan of Conservation and Development***

While the Project is not required to obtain local zoning approval(s), the Antares Solar Field will be consistent with all applicable local regulations including the Town of East Lyme’s zoning regulations, wetlands regulations and plan of conservation and development. Moreover, it is not anticipated that the Project would interfere with any existing or future development plans known in the area.

### **C. Visual Resources Evaluation**

GRE retained BL Companies to conduct several environmental impact analyses related to the Project, including the visual resources evaluation. As part of its analysis of potential impacts to the area’s visual resources, BL Companies conducted a site analysis of the viewsheds and developed a computer rendering of the potential views from two vantage points. The first depiction, seen as Figure 2, shows the anticipated views of the Project from nearby properties for a viewer viewing the Project from ground level.

**Figure 2. View of Project from Ground Level**



The second depiction, listed as Figure 3 below, shows the anticipated view of the Project from the second floor of a nearby property.

**Figure 3. View of Project from Nearby Second Story**



As can be seen from the figures above, the Project would not have a substantial adverse visual effect on the residences, given the screening afforded by anticipated fencing and landscaping surrounding the Project.

#### **D. Historic Values**

It is not anticipated that the Project will have an adverse impact on historic values. On December 17, 2012, GRE requested a review of the Project by the State Historic Preservation Officer (“SHPO”). Once GRE receives the SHPO’s determination related any impact to historic values as a result of the Project, GRE will submit such determination to the Siting Council for its review.

#### **E. Ecological, Vegetation, Wildlife Habitat and Natural Diversity Database**

The attached Natural Resource Inventory and Impact Assessment prepared by Environmental Planning Services, describes in detail the existing habitat at the Property. *See* Exhibit D. The report indicates that the Property contains nine different habitat types including wooded swamp, perennial stream, scrub-shrub wetland, pond/emergent marsh, residential lawn and ornamental landscape, mixed hardwood forest, hayfields, early old field, and late old field. The Property’s wetlands include primarily wooded swamps, which are the most abundant wetland type in Connecticut.

As is explained in greater detail in the Natural Resource Inventory and Impact Assessment, the Project will result in a very small loss of terrestrial habitat for adult amphibians and would permanently convert approximately thirty-three (33) acres of native habitats to rough lawn. The areas that would be subject to conversion are characterized as eighteen (18) acres of old field and fifteen (15) acres of mixed hardwood forest. This change in vegetation type will not result in the loss of any state or federally listed plant species, rare habitats or “Critical Habitats” mapped by the CT DEEP NDDB. The loss or conversion of this small amount of forested land is not expected to have a significant or long-term negative impact on local terrestrial wildlife populations, as this type of forest is abundant in proximity to the Property as well as throughout northwest Connecticut. The Project will likely provide benefits to local wildlife populations by

preserving open space and protecting existing habitat from suburban development and habitat fragmentation.

An NDDDB Request Form and supporting materials were submitted to the DEEP. The DEEP's response letter, received on May 8, 2012, indicated that the state special concern butterfly species Henry's Elfin and the federally endangered perennial herb American chaffseed occur in the vicinity of the site. The DEEP recommended that a lepidopterist conduct surveys for Henry's elfin and its host plant, and that a botanist conduct field surveys for the American chaffseed. It also recommended that if any direct or indirect activities are proposed for this area, that a description of work be provided. Environmental Planning Services concluded, through an on-site review of the Property, that there is a low probability of breeding habitat for Harry's Elfin and that the American chaffseed is not present on the Property.

## **F. Wetlands**

The Project has been designed so that there will be no direct impacts on wetlands and watercourses. As can be seen from the Natural Resource Inventory and Impact Assessment, there are seven wetland systems located on the Property and two additional wetlands systems located off-Property that are also discussed. Most of the wetlands are wooded swamps that include areas of wet meadow/emergent marsh, open water (i.e., ponds), or shrub-scrub embedded within them. Wet Meadow/Emergent Marsh habitats are dominated by persistent and non-persistent grasses, sedges, rushes, and other herbaceous grass-like plants. Shrub-Scrub wetlands are dominated by woody vegetation, shrubs with some scattered stunted trees, less than 20 feet (6 m) in height. Wooded swamps are the most abundant wetland type in Connecticut and have a plant community which is characterized by a forest canopy at least 20 feet (6 m) tall.

Wetland A (Wetland Flags WL 182-198) is a pond with an emergent marsh along the edge and wooded swamp. The emergent marsh consists mainly of Wool Sedge, sedges, grasses, Sensitive Fern, American Burreed, Soft Rush, and smartweed. The wooded swamp portion is predominantly Red Maple with an open shrub layer of mostly Multiflora Rose.

Wetland B (Wetland Flags WL 1-29) is a wooded swamp with an excavated pond at the upper end. The tree canopy is mostly Red Maple with Yellow Birch. The open shrub layer is mostly Spicebush, Multiflora Rose, Japanese Barberry, and Highbush Blueberry. The herb layer includes Skunk Cabbage, grasses, Tussock Sedge, sedges, peat moss, Sensitive Fern, and

Cinnamon Fern. The vine layer is largely Common Greenbriar and Poison Ivy. The pond has a partial emergent edge of Common Cattails. Extensive mats of filamentous green algae was observed floating on the water's surface.

Wetland C (Wetland Flags WL 172-176, 177-181) is a small shrub-scrub swamp. The scattered tree layer is mostly Red Maple with Green Ash. The shrub layer is mainly Multiflora Rose. The herb layer consists largely of grasses, goldenrods, and Soft Rush. The vine layer is mostly wild grape.

Wetland D (Wetland Flags WL 30-84, 85-150) is a large wooded swamp associated with a south-flowing watercourse. There is an excavated pond at the north end. This area was restored in 2009. The pond has a narrow emergent edge with three (3) wet meadow pockets in the restoration areas. The herb layer consists mostly of grasses, sedges, and Soft Rush. The wooded swamp has a nearly continuous tree canopy consisting largely of Red Maple, Black Gum, Green Ash, and Yellow Birch. The shrub layer is mostly Spicebush, Multiflora Rose, Highbush Blueberry, and dense stands of Japanese Barberry. The herb layer includes Skunk Cabbage, grasses, Cinnamon Fern, peat moss, and sedges. The vine layer is largely Common Greenbriar.

Wetland E (Wetland Flags WL 166-171) is a small seasonally saturated wooded swamp. The tree layer consists mostly of Red Maple. The shrub layer is largely Multiflora Rose and Japanese Barberry. The herb layer includes grasses and sedges.

Wetland F (Wetland Flags WL 151-165) is an isolated wetland depression which is seasonally ponded. Vegetation grows along the edge of the pool and is wooded swamp consisting mostly of Red Maple. The shrub layer is largely Multiflora Rose and Japanese Barberry with scattered sedges in the herb layer.

Wetland G (Wetland Flags WL 1X-5X) is a small wooded swamp. The open tree canopy is mostly Red Maple with a few Highbush Blueberry in the understory. The extensive herb layer consists largely of grasses, Soft Rush, and Sensitive Fern.

Despite the presence of these wetland areas, it is not anticipated that the Project will have any impact on these wetlands. The entirety of the Project will be constructed not only outside the boundaries of these wetlands, but also outside of the boundaries of the applicable upland review areas for these wetlands. Moreover, Best Management Practices will be utilized in accordance with the 2002 Connecticut Guidelines for Erosion and Sediment Control throughout

the course of construction activities on the Property and will be maintained until disturbed areas have been permanently stabilized. A Wildlife/Conservation seed mix containing native grasses and forbs will be used to stabilize exposed areas post-construction.

#### **G. Water Resources and Storm Water Management**

The Project is not anticipated to have an adverse impact to the water resources of the state. The solar panels themselves will not generate any effluent, so the only anticipated impacts associated with the panels would be from stormwater issues. Potential stormwater issues associated with the Project have already been addressed by GRE, however. Attached hereto as Exhibit E is the Stormwater Management Report for the Project. Construction phase water quality impacts will be mitigated by strict adherence to the sediment and erosion control and demolition plan. The sanitary effluent from the maintenance building will be treated and discharged to the ground via a code-compliant sub-surface sewage disposal system. Because of the limited area being converted to impervious surfaces, impacts to water quality are expected to be minimal and are far less significant than would be expected from a conventional residential development, as the solar array field will still allow rainfall to infiltrate into the ground.

Since construction of the Project will result in a disturbance of several acres of land, GRE will register under the DEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities at least thirty (30) days prior to commencing any construction activities. GRE intends to request coverage under the existing Connecticut General Permit, DEP-PED-GP-015, by submitting a complete and accurate General Permit Registration Form and Transmittal prior to construction activities and in accordance with applicable rules at the time of filing. In connection with that registration, GRE will implement a storm water management plan to minimize any potential adverse environmental effects. *See* Exhibit E. These procedures have been outlined in the Stormwater Management Report and the Operations and Maintenance Plan for the Project. Upon receipt, the Letter of Coverage will become part of the Stormwater Management Report and the Operations and Maintenance Plan for the Project. In addition, an Erosion and Sediment Control Plan has been developed in accordance with Connecticut General Statutes §§ 22a-325 through 22a-329 and is attached hereto as Exhibit F.



## **VI. COMMUNITY RELATIONS AND PUBLIC INPUT**

Simultaneous with the filing of this petition, although not legally required, BNE sent a certified mailing to all abutting property owners notifying such owners of the filing of this petition and will publish a legal notice in the New London Day. A copy of the list of abutting property owners, correspondence sent thereto along with the legal notice is attached hereto as Exhibit G.

## **VII. PETITION FILING FEE**

In accordance with the applicable regulations, Greenskies has submitted a check to the Connecticut Siting Council to cover the petition filing fee.

## **VIII. BULK FILING OF MUNICIPAL DOCUMENTS**

Included in the bulk filing filed herewith are four copies of the Town of East Lyme's zoning and wetlands regulations. In addition, four copies of the Town of East Lyme's Plan of Conservation and Development are included in the bulk filing.

## **IX. CONCLUSION**

The Antares Solar Field will provide numerous and significant benefits to the Town of East Lyme, the State of Connecticut and its citizens, and will place the Town of East Lyme at the forefront of green energy development while producing significant environmental benefits with minimal environmental impact. Pursuant to CGS § 16-50k(a), the Siting Council shall approve by declaratory ruling the construction or location of a grid-side distributed resources project or facility with a capacity of not more than sixty-five (65) MW, as long as such project meets DEEP air and water quality standards. The Project meets these criteria. The Project is a "grid-side distributed resources" facility, as defined in CGS § 16-1(a)(43), because the Project involves "the generation of electricity from a unit with a rating of not more than sixty-five megawatts that is connected to the transmission or distribution system . . ." and, as demonstrated herein, the Project will meet DEEP air and water quality standards. The 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. In addition, as demonstrated above, the Project will not have a substantial adverse environmental effect in the State of Connecticut.

Accordingly, GRE respectfully requests that the Siting Council approve the location, construction and operation of the Project by declaratory ruling.

Respectfully Submitted,  
GRE 314 East Lyme, LLC

By:\_\_\_\_\_

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