

May 10, 2023

Town of Farmington  
Zoning Board of Adjustment  
356 Main Street  
Farmington, NH 03835

**Via Overnight Delivery**

**Re: Nutes Solar Project – Supplemental Materials**

Dear Zoning Board:

**PURPOSE/SUPPLEMENTAL SUBMISSIONS**

The purpose of this letter is to deliver one original and six copies of the following materials<sup>1</sup> to supplement the application of Nutes Solar, LLC, for a special exception to permit a solar farm as a non-specified utility use across a number of parcels in the rural residential zoning district in the eastern most corner of Farmington, near the municipal boundaries with Milton and Rochester:

1. Sound Assessment;
2. Visual Assessment:
  - a. Viewshed Analysis;
  - b. Photos of Littlefield Solar Farm in Wells, Maine;
3. Valuation Assessment:
  - a. Expert Opinion; and
  - b. Experience of Comparable Municipalities.

**BRIEF DESCRIPTION OF SUPPLEMENTAL MATERIALS**

***1. Sound Assessment.***

The sound assessment was prepared by project engineers, Krebs & Lansing Consulting Engineers, Inc., of Colchester, Vermont, based on specifications provided by the manufacturers of the three elements which produce sound – the tracker motors, inverters, and transformers. The sound assessment is based on the distance between the sound producing elements and nearby residences, with no account for attenuation of any intervening sound absorbing/deflecting materials, such as vegetation. Moreover, the sound assessment does not take into account existing ambient noise which will mask the sound from the project. The sound assessment aggregates the sound from all three of

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<sup>1</sup> Larger versions of some of these materials will be available for display at the ZBA meeting on May 18.

the sound producing elements operating at maximum sound pressure levels simultaneously and directing their sound energy in the same direction. Even in this “worst case” scenario, the highest reading at the closest residential receptor is less than 37.5 decibels – a sound level that is somewhere between a whisper and the quiet hum of a refrigerator.

The town of Farmington does not have an ordinance addressing sound pressure levels. In the absence of a municipal regulation, a relevant level is provided by the New Hampshire Site Evaluation Committee (“NHSEC”). The NHSEC limits utility facilities to 45 decibels during the day and 40 at night. The “worst case” 37.5 decibels from the solar farm is considerably quieter than the 45 decibel day time limit of the NHSEC<sup>2</sup>, and will be quieter, still, in the overnight hours when no electricity from solar is being produced.

## **2. Visual Assessment.**

Two sets of material are provided to prove that the facility will be virtually invisible in its setting: a viewshed analysis and photographs from a nearby facility.

### **2.1 Viewshed Analysis**

The viewshed analysis was prepared by Viewshed Landscape Architecture of Yarmouth, Maine (“VLA”). VLA is a recognized leader in visual assessments for utility infrastructure projects with more than 30 years of experience conducting high-quality visual assessments throughout New England and across the United States. VLA has particular experience helping stakeholders understand the limited visual effects of solar projects due to their low-profile on the landscape. VLA’s analysis mapping and visual rendering models are generated with state-of-the-art computer software and representation techniques. VLA’s work has been peer reviewed and submitted as expert witness testimony for various government agencies and other stakeholders.

The viewshed analysis summary for the Nutes solar project in Farmington shows minimal project visibility within a five mile radius of the site. VLA’s analysis summary notes that the surrounding landscape is mainly wooded rolling hills, low-density development, open agricultural fields, and estates. As the report notes: ***“These characteristics as well as the low overall height of the solar facilities and substantial vegetative buffer screening that will be maintained by the Project, are the key factors resulting in this very low amount of the Project visibility.”*** Moreover, the existing vegetation that will remain around the project, and the 100 foot setback buffer that the project proponent is proposing, ***“will substantially screen views from abutting properties.”***

### **2.2 Photographs.**

In order to illustrate the latter point – that the project will be substantially screened from abutting properties – several photographs of an existing solar farm completed in 2022 in Wells, Maine, are provided. The Littlefield solar project was completed by the same firm proposing the Nutes project. The first photograph shows the Littlefield facility from near the gated private access drive, with no vegetative screening. The next several photographs are taken from vantage points approximately 100

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<sup>2</sup> Sound intensity doubles every three decibels, so 37.5 dB is actually 4-5 times quieter than the NHSEC standard.

feet away from the solar facilities, through existing vegetation. These photographs were taken earlier this spring during the leaf-off season of the year. Moreover, the vegetation surrounding the Littlefield solar project is generally more sparse than that surrounding the proposed Nutes solar project. Nevertheless, the photographs clearly make the point that the solar facility is virtually invisible from 100 feet away through the relatively sparse foliage.

### ***3. Valuation Assessment.***

Two sets of material are provided to prove that the facility will have no adverse impact on the value of surrounding properties: the written opinion of a qualified expert and the experience of several municipalities in New England hosting similar facilities.

#### ***3.1 Expert Opinion.***

Brian Underwood, the Principal of B.C. Underwood, LLC, of Rye, New Hampshire, has been providing real estate valuation and consulting services for more than 25 years. Mr. Underwood is a licensed appraiser in the states of New Hampshire and Maine. He was chairman of the New Hampshire Real Estate Appraiser Board from 2008-2012. He holds professional designations from The Counselors of Real Estate and The Royal Institution of Chartered Surveyors. For 13 years, Mr. Underwood served as the Chairman of the Wolfeboro Zoning Board of Adjustment. The seven-page curriculum vitae attached to Mr. Underwood's written opinion lists numerous additional qualifications to undergird his status as an expert.

Mr. Underwood concludes his valuation assessment that the Nutes solar project will have no adverse impact on the values of surrounding properties. His opinion is predicated on the operating characteristics of the solar farm, the lack of any impact on surrounding properties from noise, visibility, traffic, and the like, and the substantial 100' buffer to be maintained between the solar infrastructure and the surrounding property lines.

#### ***3.2 Other Municipalities.***

To further prove the point that the Nutes solar farm will not have any adverse impact on the value of surrounding properties, evidence of the experience of several municipalities in New England that host comparable facilities is provided. The supplemental filing includes photographs of eight such facilities, as follows:

#	Name	Municipality	Year Completed
1	Milton Landfill Solar Project	Milton, NH	2016
2	University Solar	West Greenwich, RI	2016
3	Vuelta & Old Wardour Solar	East Brookfield & Spencer, MA	2016
4	NHEC	Moultonborough, NH	2017
5	BWC East Brook Solar	Wilbraham & Hampden, MA	2021
6	Littlefield Solar	Wells, ME	2022

The photographs show that these solar farms are in settings similar to that of the proposed Nutes facility – namely, in wooded areas in close proximity to nearby residential neighborhoods. In all of these communities, not a single owner of a nearby property has sought a tax abatement on the basis that the proximity of the solar facility has had any adverse impact on the value of their residential property. As Mr. Underwood notes, the virtually undetectable operating characteristics of a passive solar farm makes them good, quiet, unobtrusive neighbors which have no adverse impact on the values of surrounding properties. That opinion is borne out by these several New England municipalities with solar facilities similar to the proposed Nutes solar farm in Farmington.

#### ***4. Local Roads.***

A number of folks at the first hearing had questions and concerns about the condition and maintenance of local roads. Nutes representatives met with Town Administrator Ken Dickie, and Town Highway Department Supervisor Edward Brannan at the town office on April 11<sup>th</sup> to discuss the subject.

The only traffic of note associated with the project will be that associated with the period of construction. Construction hours will be limited to Monday – Friday, 6 AM – 7 PM, and Saturdays from 7 AM – 7 PM. Initial work will include stormwater controls and stabilization, followed by clearing and grading, and then installation of project posts and metal racking. In final stages the solar modules will be installed and electrical wiring completed.

During any dry periods, site contractors will employ dust abatement methods to minimize dust. During wet conditions, the project will manage entrance(s) and exit(s) to minimize dirt and mud leaving the site, consistent with standard best management practices.

Standard flatbed and delivery truck visits to the site will be staggered to avoid congestion. Trucks will be promptly unloaded to minimize idling. Truck traffic will be similar to existing truck traffic in the area. The project will require approximately 200 truckloads to deliver major components and construction equipment to the project site. These deliveries will be spread over the 9-12 month construction window, averaging 0.55 – 0.74 trucks per day through construction, with a peak rate of 7-10 trucks/day. Due to the short duration of the construction period, traffic impacts are expected to be very minimal. NH DOT AADT (Average Annual Daily Traffic) counts in Farmington occur at two locations: NH Rt. 75 at Elm Street, and NH Rt. 75 at Tappan Street. The AADT for these two locations in 2022 are 3408 and 1329 vehicles, respectively. The nearest location to the project site is the count at NH Rte. 75 and Elm Street. Based on these metrics the project would expect to only increase local traffic by 2% or less, for a short duration.

Once construction is complete, the traffic impacts will be negligible. Operations and maintenance personnel will visit the site twice weekly initially (for the first two months) and thereafter approximately once per month. Each visit will involve one or two standard vehicles (passenger car or pick-up truck).

Based on these features, no concerns were raised by Mr. Brannan around the use of local roads during construction or operations. The Road Agent directed the engineers to design the access point apron to municipal standards and suggested the use of Dodge Cross as a temporary access to build

the construction entrance, in order to avoid parking trucks or equipment on Chestnut Hill Road, as it is a high traffic area.

### ***5. Fire Safety.***

Solar facilities present a very low risk of fire. The solar panels, which are the most significant component of the project equipment, are exactly the same type of panels routinely installed on schools, homes, and businesses across New Hampshire and the US by the millions.

The facility will be constructed in accordance with the National Electric Code and all applicable laws. Electrical equipment containing mineral oils, such as transformers (which are the same type of transformers as are used to serve electrical load for homes and businesses all across New Hampshire), will have secondary containment systems and will be regularly monitored to ensure optimum operational performance – periodically by in-person field inspections, and remotely 24/7/365. Ground mounted solar photovoltaic facilities can be expected to operate safely and quietly for many decades without risk to the health or safety of neighboring properties.

The site will be maintained and managed to prevent emergencies. In accordance with electric code, the facility will be surrounded by a fence, and accessed through a locked gate to maintain the safety and security of the site. Emergency personnel will have access the site by way of a Knox Box in the unlikely case of emergency and a site tour with fire and other emergency response personnel will be conducted prior to energizing the site.

### ***6. Civil Engineer.***

Chris Nadeau of Nobis Engineering is the primary civil engineer for the Nutes project. Mr. Nadeau was also of the civil engineer who helped to permit the previously approved solar farms in Farmington on the closed municipal landfill site. Mr. Nadeau will be repaired to address stormwater management, access and control points, best management practices for vegetation control, and other environmental protection provisions included as part of the alteration of terrain permitting process required by NHDES.

### ***7. Decommissioning.***

Solar energy facilities bring pollution free, low-cost renewable power to the wholesale power market, while creating jobs, economic development and revenue to the host community, without creating demands on municipal services. The expected life of the solar facility is approximately 40 years. At the end of its useful life, the facility will be decommissioned. Decommissioning activities will include the removal of all modules, racking, inverters, transformers, fencing, poles, above ground electrical equipment and below ground infrastructure (including wires and foundations) to a depth of 48". All decommissioned equipment and materials will be recycled to the greatest extent practicable, or properly disposed of in accordance with applicable laws. After decommissioning is complete, the site will be stabilized and revegetated with approved seed mixes.

To ensure these decommissioning obligations are fulfilled, prior to commercial operations Nutes Solar will prepare a site-specific decommissioning plan and cost estimate prepared by a professional

engineer licensed in the State of New Hampshire. Nutes will provide the Town of Farmington with a decommissioning bond, irrevocable letter of credit, or other financial surety in an amount equal to the decommissioning cost estimate. The decommissioning plan and cost estimate, and any associated decommissioning financial assurance, will be updated on the fifth anniversary of the commercial operations date and every five years thereafter until decommissioning has been completed. This commitment will ensure that the proposed use continues to remain consistent with the character of the uses allowed by right in this district both during and after the project's useful life.

### CONCLUSION

The materials and explanations provided here are intended to address issues raised at the initial public hearing on April 6, and further demonstrate that the proposal satisfies the criteria for a special exception for a utility use not specified in the RR zone.

The proposed solar farm is consistent with the character of a number of other permitted uses within the district. The proposed solar farm creates no hazard to the public or adjacent properties on account of potential fire, explosion, or release of toxic materials. No detriment to property values would be created in the vicinity nor will the essential characteristics of the area be changed on account of the scale of buildings or other structures, parking areas, access ways, odor, smoke, gas, dust or other pollutants, noise, glare, heat, vibration, or unsightly storage of outdoor equipment. No traffic hazard or substantial increase in traffic congestion is created by the proposed solar farm. The facility will impose no excessive demand on any municipal services but, rather, will be a substantial benefit to the community. And, finally, because of state level regulatory and design requirements, no increase in storm water runoff onto adjacent properties or streets shall be created.

The Nutes Solar development team looks forward to speaking with you further about this project at the continued hearing on May 18. If you require any additional information or materials ahead of that date, please be in touch.

Otherwise, thank you for your continuing attention to and assistance with this application.

Sincerely yours,



Thomas W. Hildreth

TWH:

Enclosures

cc: Nutes Solar, LLC  
Flycatcher, LLC  
Nobis Engineering  
Krebs & Lansing

State of New Hampshire

Town of Farmington

*Planning and Community Development*

Zoning Board of Adjustment

Re: Nutes Solar Project

Supplemental Materials (May 10, 2023)

# **Sound Assessment**





Coordinate System: NAD 1983 StatePlane New Hampshire FIPS 2800 Feet (Foot US)  
Map Resolution: 1:250,000

Plot Date: 4/26/2023, 15:22:38 PM by DREWKENWORTHY -- (ARCUT: ANSI 811"x11")  
Path: C:\WALDEN\Projects\Walden\_1983\_NotesSolar\_Acoustic\_11x17L.mxd

Map ID	Calculated sound level (dB)
1	33.14
2	32.58
3	31.89
4	32.37
5	33.88
6	33.36
7	35.17
8	34.29
9	35.5
10	36.79
11	35.4
12	34.44
13	33.63
14	32.98
15	37.48
16	35.99
17	35.58
18	34.81
19	34.23
20	33.14
21	30.35
22	29.79
23	31.96
24	31.91
25	30.41
26	30.59
27	30.53
28	29.52
29	29.11
30	30.39
31	30.4
32	31.34
33	31.54
34	32.31
35	33.1
36	34.07
37	35.62
38	35.53
39	34.44

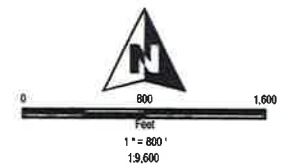
#### LEGEND

- PROJECT PARCEL
- TOWN BOUNDARY
- INVERTER LOCATION
- RECEPTOR LOCATION
- PROPOSED LIMIT OF CLEARING
- 500-FT PROJECT BUFFER



#### NOTES:

- BASEMAP IMAGERY FROM BING.
- PARCEL DATA FROM NH GRANT FOR FARMINGTON, BOUNDARIES FOR MILTON WERE TRACED FROM SRPC-HOSTED FEATURE LAYERS.



PROJECT: WALDEN RENEWABLES DEVELOPMENT  
NOTES SOLAR, LLC  
FARMINGTON, STRAFFORD COUNTY, NH

FIGURE 1: ACOUSTIC RECEPTOR LOCATIONS

DESIGNED BY: D. KENWORTHY PROJECT NO: 1983-9

CHECKED BY: K. ROCKWORTHY

DATE: APRIL 2023

FIGURE 1

Flycatcher

WALDEN RENEWABLES

Walden\_1983\_NotesSolar\_Acoustic\_11x17L.mxd



State of New Hampshire

Town of Farmington

*Planning and Community Development*

Zoning Board of Adjustment

Re: Nutes Solar Project

Supplemental Materials (May 10, 2023)

# Viewshed Analysis



# VIEWSHED

Landscape Architecture | GIS | Planning

May 5, 2023

TO: Dale Knapp | Walden Renewables

FR: Steve Thompson | Viewshed

RE: **Viewshed Analysis Summary for Nutes Solar Project, Farmington, NH**

Viewshed was retained by Walden Renewables to complete a computer-based viewshed analysis and mapping of the Proposed Nutes Solar Project (Project) in Farmington, New Hampshire. The following describes our methodologies, analysis, and conclusions.

## Methodology

In order to complete the computer-based viewshed analysis, a visual study area was identified. Based on our recent experience assessing the visual impacts of solar projects in New England, a conservative study area within 5-miles of the Project was used to conduct the analysis. The study area not only included areas of Farmington within 5-miles of the Project, but also included portions of Rochester, Milton, Middleton, and New Durham, New Hampshire.

The computer-based viewshed analysis was conducted using ESRI ArcGIS Pro software. The analysis relies on a Digital Terrain Model (DTM) to represent topography (i.e., bare earth conditions), as well as a Digital Surface Model (DSM) to represent vegetation and structures in the landscape. For the 5-mile study area, the DTM and DSM used to represent the landscape were derived from LiDAR point cloud data, which was taken from The National Map produced by the U.S. Geological Survey (USGS)<sup>1</sup>. The point cloud data was processed to create 3-foot square resolution surface raster models.

Based on data provided by Walden Renewables, max Project solar panel height was set to 18 feet for all array areas. For purposes of the viewshed analysis, a viewer height of 5 feet above the terrain was assigned to represent the eye level of a typical viewer. Project components are counted as 'visible' if the computer determines that a single point on the component would be seen from eye level and not blocked by topography, vegetation, or buildings. In this case, the viewshed analysis shows where any portion of the Project would be visible within 5-miles from a viewer height of 5 feet above ground, whether it be from roads, opens spaces, or elevated viewpoints.

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<sup>1</sup> The National Map produced by the U.S. Geological Survey is available at: <https://viewer.nationalmap.gov/basic/>

## Analysis

The results of the viewshed analysis showed very minimal Project visibility within 5-miles. The landscape within the study area consists mostly of wooded rolling hills, low density development, and open agricultural fields and estates. These landscape characteristics as well as the low overall height of the solar facilities and substantial vegetative buffer screening that will be maintained by the Project, are the key factors resulting in this very low amount of Project visibility.

Limited potential visibility from roadways within Farmington were identified on Hometown Road (3.5 miles away), and Goslin Way (4.6 miles away). In both cases, visibility from the road is limited to small areas of the roadway, offering narrow views of the Project, if noticeable at all. Nutes Road in Milton was also identified as having potential Project views (0.5 to 1 mile away). Due to existing vegetation along the road and in the midground, Project views will likely be heavily filtered from this location.

The remaining identified areas where potential Project visibility exists are almost exclusively located on private land. Most private lands with potential visibility are located beyond 3-miles from the Project, where Project components would likely appear minimally visible or negligible in the landscape. Due to existing vegetation that will remain around the Project, views of Project components will be partially or fully screened from abutting private properties.

## Conclusion

Computer-based viewshed analysis is a reliable and effective tool for establishing a baseline of potential Project visibility within a defined study area. This analysis shows that the magnitude of Project visibility is highly limited and is unlikely to create an unreasonable adverse impact to the scenic character of the surrounding area, including the immediate Project neighborhood. This conclusion is primarily the following findings:

- The rolling terrain, vegetation, and other characteristics of the landscape within 5-miles of the Project act to screen Project views from the surrounding area. The buffer vegetation to remain surrounding the site will substantially screen views from abutting properties.
- Based on the viewshed analysis, there is limited opportunity for Project views from the surrounding area.



**NOTES SOLAR PROJECT**  
Farmington, New Hampshire



**PROJECT VIEWSHED MAP**

Potential Visibility Of Project  
Using Digital Surface Model (DSM)

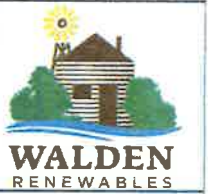
- LEGEND**
- Notes Solar Project Area
  - 5 Mile Study Area
  - Potential Visibility

**ANALYSIS NOTES**

This map shows potential areas of visibility of any portion of the Notes Solar Project within five miles. The analysis relies on the screening effects of both topography and surface data accounting for vegetation and structures such as buildings.

The analysis is based on a Digital Surface Model (DSM) processed at 3 ft resolution from first return LIDAR data acquired from the USGS National Map. The viewer height is set at 5 ft above ground level elevation. The point height is set at 16 feet above ground level elevation.

The viewshed represents where a viewer may see any portion of the development within five miles. Potential development visibility needs to be confirmed with field investigations and other visualization techniques.

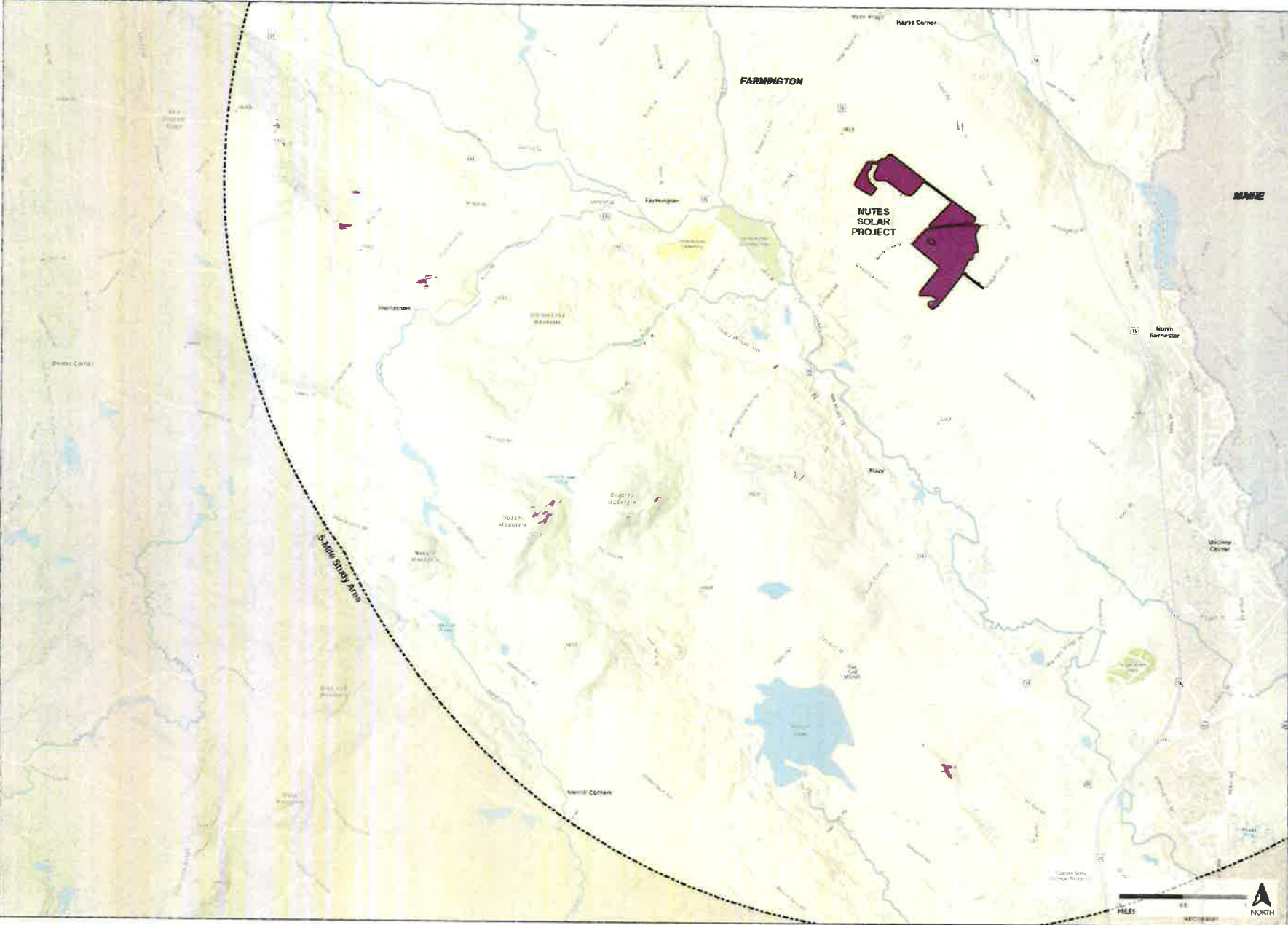


**VIEWSHED**

1 May 2023



**NUTES SOLAR PROJECT**  
Farmington, New Hampshire



**PROJECT VIEWSHED MAP**

Potential Visibility Of Project  
Using Digital Surface Model (DSM)

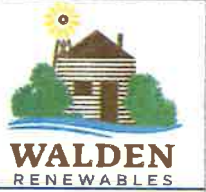
- LEGEND**
- Nutes Solar Project Area
  - 5 Mile Study Area
  - Potential Visibility

**ANALYSIS NOTES**

This map shows potential areas of visibility of any portion of the Nutes Solar Project within two miles. The analysis relies on the screening effects of both topography and surface data (accounting for vegetation and obstructions such as buildings).

The analysis is based on a Digital Surface Model (DSM) processed at a 2.5 resolution from first return LIDAR data acquired from the UNCS National Map. The viewer height is set at 5 ft above ground level elevation. The pixel height is set at 10 feet above ground level elevation.

The Viewshed represents where a viewer may see any portion of the development within two miles. Potential development visibility needs to be confirmed with field investigations and other visualization techniques.



**VIEWSHED**

10/12/2018



State of New Hampshire

Town of Farmington

*Planning and Community Development*

Zoning Board of Adjustment

Re: Nutes Solar Project

Supplemental Materials (May 10, 2023)

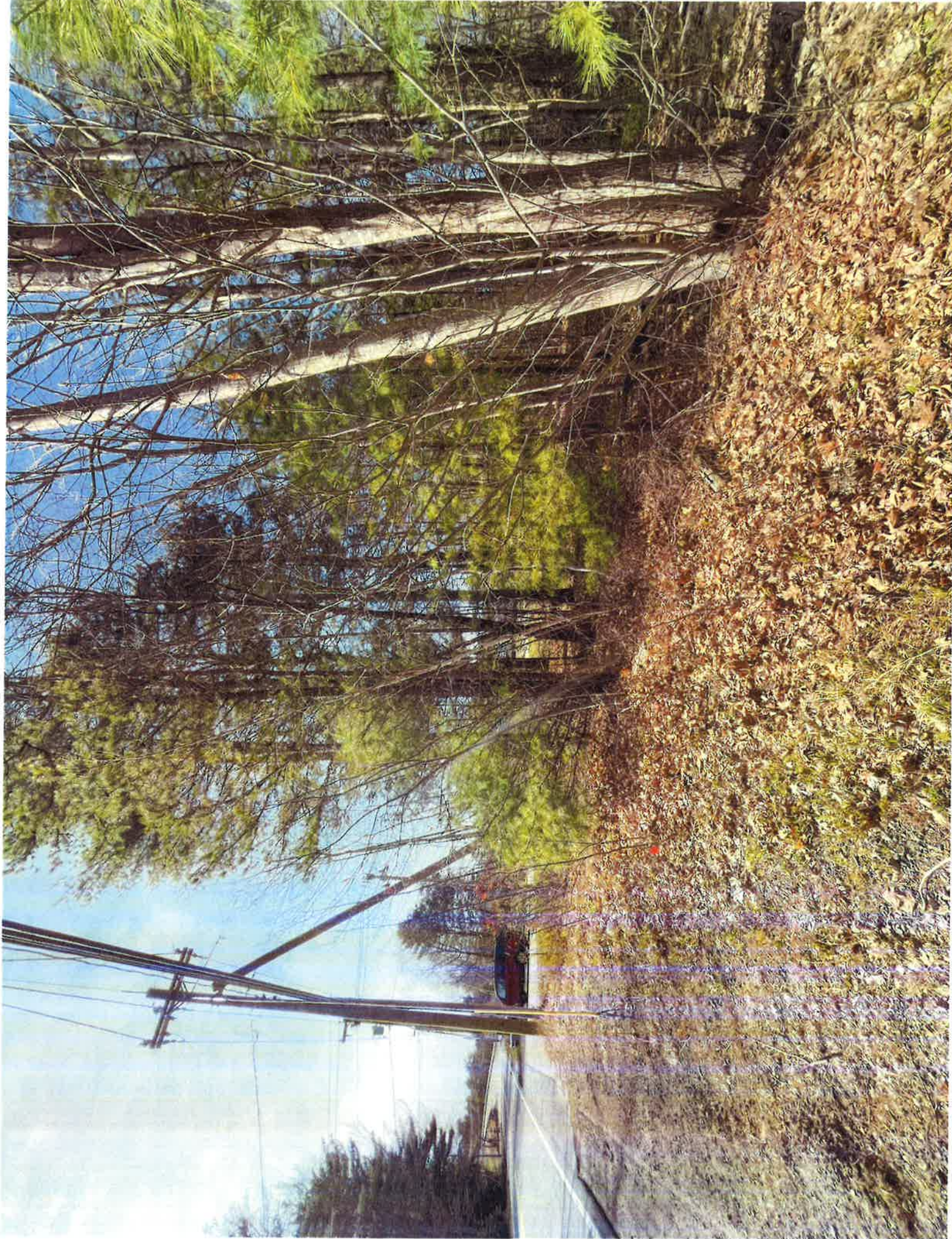
**Littlefield Solar**  
**(5 photos)**



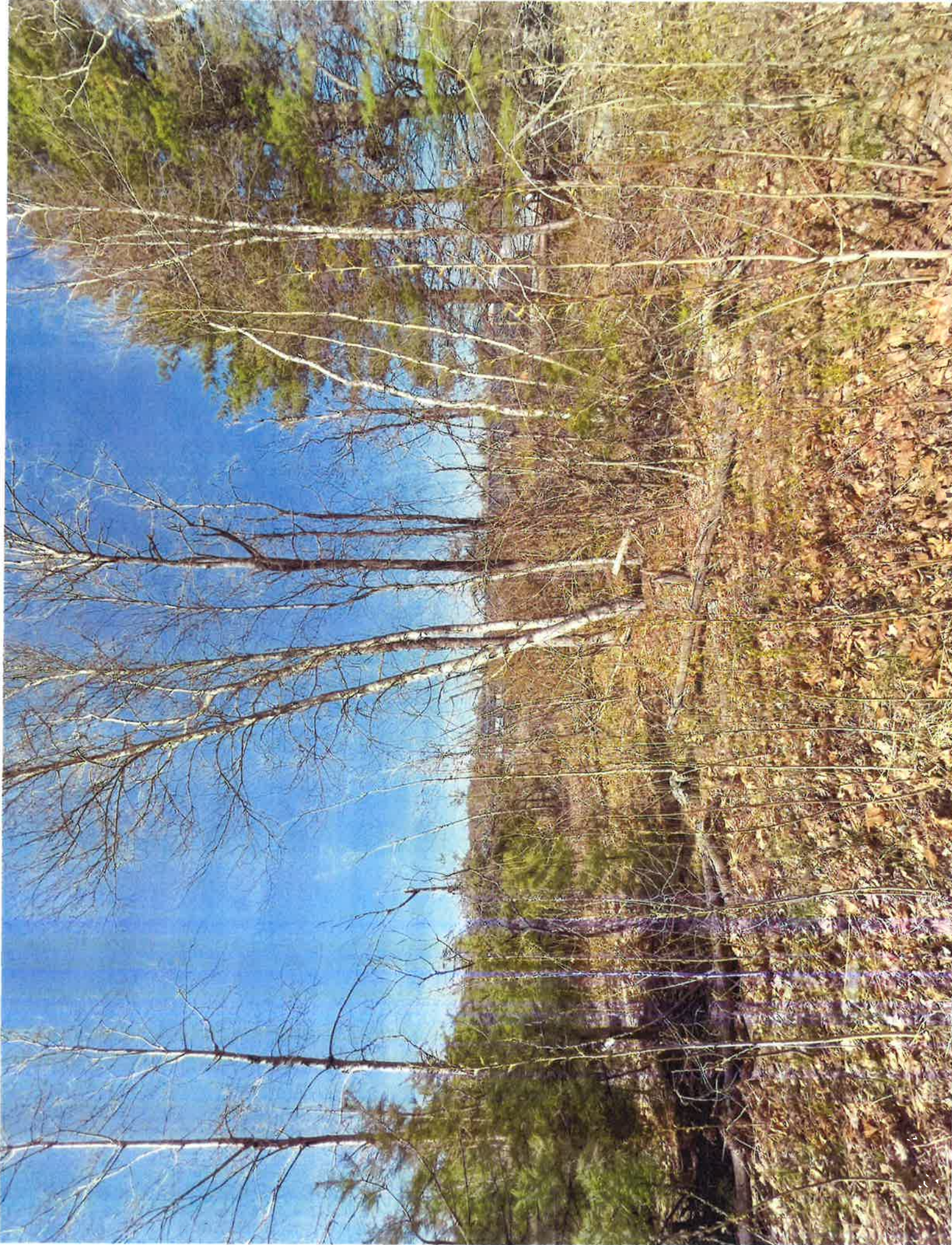






















State of New Hampshire

Town of Farmington

*Planning and Community Development*  
Zoning Board of Adjustment

Re: Nutes Solar Project

Supplemental Materials (May 10, 2023)

**BC Underwood**  
**Opinion**



4 May 2023

Thomas W. Hildreth, Esquire  
McLane Middleton  
900 Elm Street  
Manchester, New Hampshire 03101

Re: Opinion: Nutes Solar Farm Project  
Application for Special Exception

Map R17, Lots 33, 55, 57, 68  
Map R18, Lots 3, 5, 10  
Farmington, New Hampshire

Dear Mr. Hildreth:

At your request, I have undertaken the due diligence described below to complete this consulting assignment to provide an opinion as to whether the proposed solar farm project will impact the surrounding property values. It is my opinion that the proposed solar facility will have no adverse impact on the values of surrounding properties. The bases for my opinion is set forth below.

### **Qualifications**

I am qualified to render an opinion related to this matter for the following reasons: (1) I served as Chairman of the Wolfeboro Zoning Board of Adjustment for 13 years. In that capacity, I gained extensive experience hearing cases where potential impact on surrounding property values was a component; (2) I have appraised and/or consulted on numerous projects and properties in Strafford County and New Hampshire; and (3) I have been retained as an expert witness in numerous contested matters and testified in state and federal courts related to property valuation issues. I hold professional designations from the Counselors of Real Estate and the Royal Institution of Chartered Surveyors. My curriculum vitae is attached to this opinion letter that further summarizes my credentials.

### **Due Diligence**

To complete this assignment, the following was undertaken:

- Review of the Application for Special Exception for the above referenced project, including the overview concept plan.
- Review of the relevant portions of the Farmington Zoning Ordinance.
- Inspection of the subject property and the surrounding neighborhood.
- Review of the viewshed analysis and sound assessment commissioned by the applicant.
- Information from the Moultonborough assessor related to a solar farm project.
- Review of other materials, information, and literature deemed necessary to prepare this opinion.

## **The Project**

The proposed use is for construction of a 20MW solar farm on approximately 150 acres of land. The site includes several individual parcels with frontage on several local roads. There is an existing approximately 100 foot wide utility right of way running northeasterly and easterly through the project area. Access to the solar facility is proposed from Chestnut Hill Road, a two lane, asphalt paved town road that provides northwest to southeast access from Farmington to North Rochester. The solar panels will be less than 20 feet high and a minimum of 100 feet from abutting residential property boundaries. There are mature trees along most of the boundary lines.

Abutting properties will experience no substantive change in view of the subject parcels. While there may be filtered views of the solar panels from 100 feet or more, it would be through existing vegetation or other vegetative buffers that may be planted as part of the project. The solar panels and related electrical equipment operate at sound levels at or below the level of a household refrigerator. Furthermore, the sources of sound would be more than 100 feet from any residential boundary line. Upon completion, there would be no increase in traffic or noise from the solar farm.

## **Analysis**

From an appraisal perspective, the highest and best use of a property must be considered in order to determine its market value. There are four components to the highest and best use; they are: Physically Possible, Legally Permissible, Financially Feasible, and Maximally Productive. When a parcel of land or improved property cannot be put to its highest and best use, the market value of the property is adversely impacted. In the case of the immediate residential neighborhood, the highest and best use of the surrounding land are the existing residential neighborhoods. If the proposed project is approved, the highest and best use of the surrounding land will not change. Once construction is completed, the surrounding neighborhoods will be unaffected by the presence of the solar farm. The solar farm will not be readily visible. The solar farm will not be audible. The solar farm will produce only negligible traffic. The solar panels are under 20' high and the facility does not include any other buildings or structures out of scale with the setting. The solar project does not include any objectionable parking areas, access ways, odor, smoke, gas, dust, or other pollutant, noise, glare, heat, vibration, or unsightly outdoor storage of equipment or other materials. Since there are no adverse or noxious attributes from the presence of operation of the solar farm, the solar farm will have no impact on the surrounding property. Therefore, there is no indication from a highest and best use analysis that there would be any alternative highest and best use or diminution in value.

Given the siting of the Nutes proposed solar farm, the solar farm's operating characteristics will make it virtually undetectable by its abutters and surrounding neighborhood. The passive nature of solar farms make them quiet, unobtrusive neighbors which have no adverse impact on the values of surrounding properties. This opinion is further supported by the Town of Moultonborough, where the local assessor confirms that no applications for tax abatements have been filed by anyone in that town based on the 2017 completion of a solar farm by New Hampshire Electric Coop.

A review of Farmington sales data from January 1, 2022, to present indicate very strong residential market conditions. There has been a total of 124 sales with a median 7 days on market. The median list price of the 124 sales was \$299,900 and the median sale price was \$310,750 or 3.6% over the asking price. Currently, there is one active residential listing in Farmington with an asking price of \$269,900. Under the hypothetical condition that the

proposed project has some adverse impact on surrounding property values, given the very strong market conditions, market participants would most likely overlook the adverse factors given the limited inventory, short marketing periods, and sale prices in excess of the asking price. In my opinion, the proposed solar farm will not create adverse factors in the marketplace.

It is not uncommon for a property owner to claim that their property's value will decrease because of a proposed project. Over the course of my 30+ year career, I have been asked many times by abutters opposing a project to opine that a proposed use will adversely impact their property values. In most cases, as in this case as well, the market data along with researching the actions of both buyers and sellers in the marketplace result in undisputable evidence that, in fact, there is no diminution in value. It is easy to claim an impact; however, the supporting evidence and market data indicate otherwise.

The neighborhood's highest and best use does not change, nor would its marketing time increase as evidenced by the data and the existing conditions in the neighborhood and Farmington in general. Therefore, there is no market evidence that the proposed solar farm project will diminish surrounding property values.

Respectfully submitted,  
**B.C. UNDERWOOD LLC**

A handwritten signature in black ink, appearing to read "B. Underwood", with a stylized flourish at the end.

---

Brian C. Underwood, CRE, FRICS



## QUALIFICATIONS OF THE FIRM



B.C. Underwood LLC specializes in the appraisal and consulting of complex real estate. The following is a representative list of assignments, geographical areas covered, and clients served.

### ASSIGNMENT TYPES

Airport Land & Buildings  
Apartment Buildings & Complexes  
Appraisal Review  
Athletic Clubs & Facilities  
Automobile Dealerships  
Bank Buildings  
Bed & Breakfasts  
Business Valuation  
Campgrounds  
Commercial Land & Buildings  
Condominium Buildings  
Conservation Easements  
Convenience Store Chains  
Continuing Care Retirement Communities  
Diminution in Value Projects  
Easements & Rights of Way  
Eminent Domain  
Environmentally Contaminated Property  
Equestrian Properties  
Estates & Luxury Residential Property  
Fast Food Restaurants  
Forest Land  
Group Homes  
Going Concerns  
Golf Courses  
Higher Education Institutions  
Hospitals  
Industrial Land & Buildings  
Impact on Property Value Studies  
Litigation Strategy & Support  
Lumber Yards

Marinas  
Market & Feasibility Studies  
Mediation  
Medical Buildings / Facilities  
Mill Buildings  
Mineral Rights  
Mobile Home Parks  
Multi-Family Residential Properties  
Office Buildings & Parks  
Parking Lots  
Partial Interests / Partition Actions  
Planned Residential Developments  
Private Schools  
Quarries  
Railroad Tourist Attractions  
Restaurants  
Retail Petroleum Properties  
Self-Storage Facilities  
Senior Living Facilities  
Service Garages  
Sports & Entertainment Facilities  
Spring Water Plants  
Shopping Malls  
Single Family Homes  
Strip Centers  
Taverns & Inns  
Tax Abatement  
Time Share Projects  
USPAP & Appraisal Methodology  
Utility Corridors  
Waterfront Property

### GEOGRAPHICAL AREAS

**Connecticut:** New Haven

**Maine:** Androscoggin, Cumberland, Franklin, York

**Massachusetts:** Barnstable, Bristol, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, Worcester

**Georgia:** Fulton

**New Hampshire:** Belknap, Carroll, Cheshire, Coös, Grafton, Hillsborough, Merrimack, Rockingham, Strafford, Sullivan

**New York:** Kings

**Pennsylvania:** Cumberland, Juniata

**Rhode Island:** Providence

**Vermont:** Rutland, Windham, Windsor

**France:** Bourgogne, Île de France,

## REPRESENTATIVE LIST OF CLIENTS

AMRESKO Commercial Finance  
Arent Fox, PLLC  
BCM Environmental & Land Law PLLC  
Bald Peak Land Company  
Bank of America  
Bank of America Private Clients Group  
Bank of New Hampshire  
Bangor Savings Bank  
Beech River Mill, Inc.  
Brewster Academy  
Carlisle Capital  
Casella Waste Systems, Inc.  
Chase Bank  
Citizens Bank  
Cleveland, Waters & Bass, P.A.  
Cooper, Cargill, Chant Attorneys at Law  
Cornerstone Energy Services, Inc.  
Creare  
Danville, Town of  
Dartmouth College  
Dartmouth Hitchcock Medical Center  
Devine, Millimet & Branch, P.A.  
Eversource  
Farm Credit East  
Federal Deposit Insurance Corporation  
Fletcher Tilton, P.C.  
Franklin, City of  
GSSG Solar  
Gallagher, Callahan, & Gartrell, P.C.  
General Services Administration  
Godbout Law, PLLC  
Gov. Wentworth Regional School District  
Green Mountain Furniture, Inc.  
Grinnell & Bureau Attorneys at Law  
Hinckley Allen LLP  
Holland & Knight LLP  
Huggins Hospital  
J.P. Noonan, Inc.  
Key Bank  
Lakes Region Conservation Trust  
Lakeview Management, Inc.  
Mallet Company  
Marriott, J. Willard Jr.; Chairman, Marriott International  
Martin, Lord, & Osman, P.A.  
Latici Law Office, P.A.  
Liberty Utilities  
Lyme Properties  
McLane Middleton, P.A.  
Mobil Oil Corporation  
Monzione Law Offices  
Mount Washington Observatory  
Mutual Oil Company  
New Hampshire Charitable Foundation  
New Hampshire Motor Speedway  
North Conway Country Club  
Northern Pass Transmission LLC  
Northway Bank  
Orr & Reno  
Pace Academy  
Pastori Krans Attorneys at Law  
Perkins Thompson Attorneys & Counselors  
Phillips Exeter Academy  
Pierce Atwood LLP  
Pike Industries, Inc.  
Pleasant View Gardens  
Portsmouth, City of  
PriceWaterhouseCoopers  
RHP Properties  
Ricci Lumber  
Rochester Toyota  
Rye, Town of  
Salvation Army  
Seward & Kissel LLP  
Sheehan Phinney, P.A.  
Sulloway & Hollis, PLLC  
Sullivan & Gregg Attorneys at Law  
TD Bank  
Taylor Community  
Tuscan Brands  
U.S. Trust Company  
University System of New Hampshire  
Upton & Hatfield LLP  
Vermont Academy  
Walker & Varney Attorneys at Law  
Webster Land Corporation  
Wescott Law P.A.  
Wolfeboro, Town of

**BRIAN C. UNDERWOOD, CRE, FRICS**  
**CURRICULUM VITAE**

**PROFESSIONAL DESIGNATIONS**

Awarded the CRE designation, Counselor of Real Estate; The Counselors of Real Estate

Awarded the FRICS designation, Fellow, Royal Institution of Chartered Surveyors

**PROFESSIONAL PUBLIC APPOINTMENTS**

New Hampshire Real Estate Appraiser Board, Chairman (2008-2012)

**PROFESSIONAL EXPERIENCE**

*B.C. Underwood LLC*, Rye Beach, New Hampshire: Principal of a real estate appraisal & counseling firm founded in 1998 specializing in complex property types, litigation support, and mediation.

*Atlantic Valuation Consultants, Inc.*, Meredith, New Hampshire: President of an east coast real estate and business valuation firm specializing in market / feasibility studies, and litigation support.

*Conwood Group*, New Cumberland, Pennsylvania: Managing General Partner of a real estate investment company that owned and operated coin laundries.

**LICENSEE**

Certified General Real Estate Appraiser, State of Maine  
License Number: CG4821 (expires December 31, 2023)

Certified General Real Estate Appraiser, State of New Hampshire  
License Number: NHCG-394 (expires November 30, 2023)

**PROFESSIONAL EDUCATION**

**Harvard Business School**

- *Valuation*; Cambridge, Massachusetts; 1999

**American Society of Appraisers Seminars**

- *The Expert Witness*; Manchester, New Hampshire; 1996

**Appraisal Foundation**

- *Appraisal Investigator Training Level I*; Alexandria, Virginia; 2009
- *Appraisal Investigator Training Level II*; Scottsdale, Arizona; 2010

**Appraisal Institute Courses**

- 400: *Uniform Standards of Professional Appraisal Practice (USPAP) Update Course*; 2022-23
- 410: *Standards of Professional Practice, Part A (Uniform Standards of Professional Appraisal Practice)*; Portland, Maine; 1997
- 420: *Standards of Professional Practice, Part B*; Hershey, Pennsylvania; 1993
- 110: *Appraisal Principals*; Hershey, Pennsylvania; 1993

- 120: *Appraisal Procedures*; Hershey, Pennsylvania; 1993
- 310: *Basic Income Capitalization*; Tallahassee, Florida; 1993
- 320: *General Applications*; Boston, Massachusetts; 1995
- 510: *Advanced Income Capitalization*; Tallahassee, Florida; 1993
- 540: *Report Writing & Valuation Analysis*; Tallahassee, Florida; 1995

### **Appraisal Institute Seminars**

- *Valuation Issues & the Tax Abatement Process*; 2022
- *Current Residential & Commercial Valuation Concerns*; 2022
- *Implications for Appraisers for Conservation Easement Appraisals*; 2022
- *Artificial Intelligence, AVMs, & Blockchain: Implications for Valuation*; 2021
- *Forestland Valuation*; 2021
- *Appraiser Essentials*; 2021
- *Appraising Residential & Commercial Properties during a Pandemic*; 2020
- *Market Trends in New Hampshire Real Estate*; 2020
- *Eminent Domain and Condemnation*; 2017
- *Data Verification Methods*; 2015
- *Thinking Outside the Form*; 2015
- *Subdivision Valuation*; Manchester, New Hampshire; 2005
- *Automated Valuation Models*; Baltimore, Maryland; 1997
- *Mock Trial*; Boston, Massachusetts; 1995
- *Appraisal Practices for Litigation*; Boston, Massachusetts; 1995
- *GIS Seminar*; Boston, Massachusetts; 1995
- *Due Diligence for Contaminated Properties*; Boston, Massachusetts; 1995
- *Environmental Risk and the Real Estate Appraisal Process*; Rockport, Maine; 1994

### **The Counselors of Real Estate Seminars**

- *Global Economic Forces: The Deficit, the Dollar and Interest Rates*; Chicago, Illinois; 2005
- *Real Estate Capital Markets*; Chicago, Illinois; 2005
- *Big Thinkers on The Big Picture: Commercial Real Estate Markets*; Chicago, Illinois; 2005
- *Hedging: Protecting Your Assets in a Rising Interest Rate Environment*; Chicago, Illinois; 2005
- *Market Watch: A Real World View on Market Prospects*; San Francisco, California; 2007
- *Institutional Investment: When Residential Real Estate Brings the Highest Yields*; San Francisco, California; 2007
- *Banks, Banking Rules, Fed Policy, and Real Estate*; San Francisco; 2013
- *Outlook for the Economic Real Estate Market*; San Francisco; 2013
- *Real Estate Analytics, Investments and Beyond*; San Francisco; 2013
- *Reaching for Yield - The High Risk of Investments*; San Francisco; 2013
- *Money Never Sleeps*; San Francisco; 2013
- *Sustainability: Energy and Land Use*; San Francisco; 2013
- *A Vision for Boston*; Boston; 2014
- *Real Estate Outlook*; Boston; 2014
- *Emerging Trends in Real Estate*; Boston; 2014
- *Making Infrastructure Happen: Public-Private Partnerships*; Montreal; 2017
- *Retail Industry - In Crisis?*; Montreal; 2017
- *Trends in Tourism & Hospitality*; Montreal; 2017
- *Laying the Groundwork of Large Scale Development*; Montreal; 2017
- *The Global Economy & Real Estate Trends: Is Capital Following Growth?*; Montreal; 2017
- *The New City: The American Urban Scene*; Chicago; 2019
- *The Global Economy & Real Estate Trends*; Chicago; 2019
- *Technology: How Data is Being Leveraged*; Chicago; 2019
- *Opportunity Zones: Challenges and Opportunities*; Chicago; 2019

- *2019-2020 Top Ten Issues Affecting Real Estate*; Chicago; 2019
- *Aging in Place: Innovation in Design & Programming*; Chicago; 2019
- *University of Chicago's Influence on the South Side*; Chicago; 2019
- *Housing, Leasing, Finance, Valuation, Property Technology, Legal, & Taxes Series*; 2021
- *Leverage Urban Development and Increase Inclusion & Diversity*; Boston; 2022
- *Economic Point and Counterpoint*; Boston; 2022
- *Life Science Industry*; Boston; 2022
- *Resilience, Adaptation, Mitigation, and Preparedness*; Boston; 2022
- *The Future Shape of Our Workplace: Office Uprising vs. Employee Uprising*; Boston; 2022
- *European Real Estate Dialogue & Debate*; Boston; 2022

#### **Massachusetts Board of Real Estate Appraisers Seminars**

- *Teamwork in Eminent Domain*; Boston, Massachusetts; 1997

#### **McKissock Learning**

- *Introduction to Legal Descriptions*; November 2017
- *Fundamentals of Appraising Luxury Homes*; November 2019
- *Expert Witness Testimony for Appraisers*; November 2019

#### **New Hampshire Association of Industrial Agents Seminars**

- *Redeveloping Contaminated Sites*; Center Harbor, New Hampshire; 1994

#### **New Hampshire Attorney General's Office**

- *Wynn Arnold Administrative Law Workshop*; Concord, New Hampshire; 2009

#### **New Hampshire Bar Association Seminars**

- *Managing, Buying, & Selling Contaminated Properties*; Concord, New Hampshire; 1994

#### **New Hampshire Superior Court, Office of Mediation & Arbitration**

- *NH Superior Court Rule 170 Civil Mediation Training*; Concord, New Hampshire; 2010

### **ARTICLES PUBLISHED**

*How to Lower Real Estate Taxes, Coin Launderer & Cleaner*; February 1996

*Tax Abatements for Environmentally Contaminated Real Estate*, New England Service Station & Automotive Repair Association; January 1995

### **SEMINARS PRESENTED**

*New Hampshire Tax Abatement Process*, [presented together with Jack B. Middleton, Esquire & Jennifer L. Parent, Esquire; McLane Middleton]; Rochester, New Hampshire; 2014

*New Hampshire Tax Abatement Process*, [presented together with Jack B. Middleton, Esquire & Jennifer L. Parent, Esquire; McLane Middleton]; Concord, New Hampshire; 2013

*Real Estate Appraisal Issues*, New Hampshire Chapter, Appraisal Institute; Concord, New Hampshire; 2010 & 2011

*Appraising Environmentally Contaminated Real Estate*, New Hampshire Bar Association; Concord, New Hampshire; 1999



*Real Estate Tax Abatement & Eminent Domain*, [presented together with Jack B. Middleton, Esquire & Arthur G. Greene, Esquire; McLane Middleton]; North Conway, New Hampshire; 1999

*Real Estate Tax Abatement Process*, [presented together with Jack B. Middleton, Esquire; McLane Middleton]; Hanover, Portsmouth, and Manchester, New Hampshire; 1996

*Real Estate Tax Abatement Process*, [presented together with Jack B. Middleton, Esquire; McLane Middleton]; Manchester, New Hampshire; 1995

*Tax Abatement for Environmentally Contaminated Real Estate*, Independent Oil Marketers Association of New England; Westborough, Massachusetts; 1995

*Tax Abatement Issues for Campground Owners*, New Hampshire Campground Owners' Association; Laconia, New Hampshire; 1995

### **LITIGATION EXPERIENCE**

admitted as expert witness

- New Hampshire Superior Court
- New Hampshire Board of Tax and Land Appeals
- New Hampshire Circuit Court, Family Division
- New York Family Court
- Massachusetts Appellate Tax Board
- United States Bankruptcy Court
- Vermont Family Court

### **EXPERT WITNESS HISTORY**

testimony at deposition, hearing, or trial

*Trustees of Dartmouth College v. Town of Hanover*  
Town of Hanover Planning Board / New Hampshire Supreme Court

*150 Greenleaf Realty Trust v. City of Portsmouth*  
Rockingham County Superior Court, New Hampshire

*Gilman Family Trust v. Town of New London*  
Merrimack County Superior Court, New Hampshire

*In Re: Carlucci*  
U.S. Bankruptcy Court, District of New Hampshire

*Campbell v. Campbell*  
New York Family Court, New York

*Cutter Family Partnership v. Town of Rollinsford*  
Rockingham County Superior Court, New Hampshire

*Southern Spectrum LLC v. Town of Wolfeboro*  
Carroll County Superior Court, New Hampshire

*Bridge v. Town of Sunapee*  
Sullivan County Superior Court, New Hampshire

*Kraeger v. Town of Sunapee*  
Sullivan County Superior Court, New Hampshire

*Ruedig v. Town of Sunapee*  
Sullivan County Superior Court, New Hampshire

*Wolters v. Wolters*  
10<sup>th</sup> Circuit Court, Family Division, New Hampshire

*Public Service of New Hampshire v. Town of Richmond*  
New Hampshire Board of Tax & Land Appeals

## **PROFESSIONAL & PUBLIC AFFILIATIONS**

- New Hampshire Real Estate Appraiser Board by appointment of Governor Lynch  
Chairman (2008-2012)
- The Counselors of Real Estate: Member  
Real Estate Issues Editorial Board (2005-2007)  
CRE Consulting Corps Steering Committee (2005 -2007)
- Mount Washington Observatory  
Past Vice President & Treasurer
- Town of Wolfeboro Zoning Board of Adjustment  
Chairman (1995-2008)
- First Congregational Church, Wolfeboro, New Hampshire  
Moderator (2008-2010)

## **CONTACT INFORMATION**

Brian C. Underwood, CRE, FRICS  
B.C. Underwood LLC  
Post Office Box 88  
Rye Beach, New Hampshire 03871

12 rue du Moulin Foulot  
21190 Meursault, France

603.387.1340  
bcu@bcunderwood.com  
www.bcunderwood.com

+33 7.89.22.53.20

State of New Hampshire

Town of Farmington

*Planning and Community Development*

Zoning Board of Adjustment

Re: Nutes Solar Project

Supplemental Materials (May 10, 2023)

**Comparable Facilities**  
**(6 photos)**





**Milton Landfill Solar Project**

Milton, New Hampshire  
Completed in 2016



**University Solar**

West Greenwich, Rhode Island  
Completed in 2016





**Vuelta Solar & Old Wardour Solar**

East Brookfield & Spencer, Massachusetts  
Completed in 2018





# Moultonborough Solar

Moultonborough, NH  
Completed in 2017





**BWC East Brook LLC Solar**

Wittsham & Hamden, MA  
Completed in 2021



700 ft

Google Earth



**Littlefield Solar Project**  
Wells, Maine  
Completed in 2022

