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Zoning Board of Appeals

January 3, 2024

RE: Solar Farm Petition Special Use Petition 4616.

Dear Kane County Zoning Board of Appeals:

As you may be aware I am attorney Stuart Petersen representing the owners Aquaviva Winery and the adjacent property to property set forth in special use petition 4616 and object to the Special Use Permit being granted or issued. This letter addresses the objections to and the inadequacy of Special Use Petition 4616.

The following are the objections/positions of my client.

Attached as Exhibit "A" is a portion of the Transcript from the original ZBA held on September 12, 2023 in which a Ms. Cimmarrusti addressed concerns about temperature changes to the immediate area and its effects on grapes. She also addresses concerns regarding the vegetation proposed, as it attracts rodents that feed on grape vines etc.

This proposed use has the potential to harm the adjacent vineyard grapes and vines.

Attached as exhibit "B" is a study from the University of Rhode Island that indicates the following:

1. Homes within a tenth of a mile of the installations declined by 7%.
2. Not every property is affected in the same way, however. The biggest negative impacts were in suburban communities when a solar array was installed on a farm or forested property. "When a farm or forest is developed into solar and there is a scarcity of that type of land in the area, you get a double negative – you lose the farm and forest amenities that are highly valued, and you get the disamenities of a solar development," Lang explained. "Losing that natural area and replacing it with something industrial is where the biggest negatives arise."

In those circumstances, the researchers found that housing prices within a mile of the solar installation declined by 5%.

Petition 4616 is clearly within a tenth of the mile to the adjacent property owners land and will adversely effect the value of the adjacent property owners land.

At the last hearing in front of the ZBA, Board Member Micheal Stoffa stated he found it hard to believe the Kaneville Fire Department had no response or concerns regarding the Petition. See the attached Exhibit "C" from the November 13, 2023 ZBA.

Prior to Development Committee I spoke to Captain Kovach of the Kaneville Fire Department who has indicated he upon review only received an email notice from the Kane County Zoning Department a petition was pending and was not asked by the Zoning Department nor the Petitioner about the Fire Departments concerns regarding the special use permit application. He has now had a chance to review the hopefully latest's plan on after the parties objecting provided him with revised site plans submitted by the Petitioner which are substantially different from the original plans which appear to be an attempt to get by with minimum requirements or even less than the minimum requirements. Remember the Petition carries the burdens of proof at the ZBA.

Captain Kovach has now since submitted his concerns upon his own investigation into the Plan submitted to County for this petition. I anticipate him to be present and speak about his concerns at the County Board Meeting. His concerns include but are not limited to the following:

The control of brush fires to facility and surrounding properties is a specific concern of Kaneville Fire (KFPD) and given the concentration of energy the installation provides, regardless of specific equipment involved, solar facilities remain a high-risk proposal as the incident in Lily Lake demonstrates. To attempt to address the risk, our requests include information on access, training, and the control of combustibile materials at the site, in addition to assurance that all applicable code requirements are met.

After reviewing plan R1 page C-6 dated 12-18-2023, which includes a T-shaped turnaround area inside the gate, it appears this plan would meet the International Fire Code D103.4 requirement if the legs of the turnaround were at least 70' long, the turning radius 28' and the path width at least 20'. Dimensions for the updated turnaround are not included in the revised plan.

These items remain the salient points from our perspective:

-- KFPD requires approved access for firefighting for all construction and demolition sites, including permanent, maintained and sufficient access roads

-- The "gravel access road" is shown to be in excess of 300'. This appears will be a dead-end access road in excess of 150' which would fall under International Fire Code (IFC) Appendix D, Table D103.4 for width and turnaround provisions. (If the turnaround dimensions are as listed above, the updated proposal for a turnaround would be acceptable)

-- Minimum width of access roads to be 20' with a minimum 26' turning radius (appears may be met with the updated drawing, pending detailed measurements)

- Access roads must support a minimum of 75,000 pounds and be maintained for fire department access at all times of the year (access road details do not include permissible load information)
- Any fencing and gate access must provide a minimum opening of 20' in width to allow fire apparatus entry (updated drawing shows 24' opening)
- Keybox and keys for access must be provided as specified by Kaneville FPD (IFC 506)
- Training and written safety instructions for disconnection of photovoltaic equipment must be provided to KFPD along with any required equipment.
- KFPD requires a copy of final plans and the ability to comment further prior to construction permitting
- All plans and facilities must meet all applicable codes, such as building and fire codes

- KFPD requests written safety instructions, equipment and training within 30 days of activation of the installed equipment. Since solar panels are always producing live energy, instructions and training may be necessary prior to panel installation.
- KFPD requests plans for control of weeds, scrub, groundcover, etc. within the facility that will minimize the chance and extension of brush fires within this and adjoining properties
- KFPD requests plans to maintain the access roads during winter and summer

The ZBA should note that the Petitioner does not even know if IDOT will grant the egress or ingress off of Route 38, which is also reflected in the Transcript attached as Exhibit "C".

As to the 50-foot setback requirement from any component/facilities and it appears that cannot be met by the Petitioner as there are facilities located in the area designated for ingress and egress, which are component/facilities under the definitions of the State Statute and Kane County applicable ordinance and as the "flagpole" is only 60 feet wide between adjacent landowners a 50-foot setback cannot be met by the Petitioner. See attached Exhibit "D", which helps explain this as well as issues concerning vegetative screening and land use concerns.

Additionally, it appears that the Original Plan as submitted also only calls for a 6-foot-tall screening fence when the ordinance indicates a minimum 8 feet. The Kane County Ordinance is as follows:

"Fencing: The Project is required by the National Electric Code to have security fencing at least 7 feet in height. Further, Kane County Ordinance 25-5-4-9, Section Q., Paragraph 1. states "A fence of at least eight (8) feet and not more than twenty-five (25) feet in height shall enclose and secure the Commercial Solar Energy Facility."

It appears again they are trying to correct this only after it was brought to their attention.

The Petitions being submitted by the "KaneSolar" LLCs are almost all identical and contain nothing but conclusions with no factual basis for these conclusions.

The Proposed vegetative screening will as proposed will not effectively screen the view of the proposed project from my clients adjacent property.

Petition 4616 submitted plans clearly does not come anywhere close to meeting its burden as to the criteria in of A, B, CD and E of **25-4-8-2** set forth below.

The factors to be considered by the ZBA are as follows:

25-4-8-2: PUBLIC HEARING:

Uses as hereinafter enumerated, which may be proposed for classification as “special uses” shall be considered at a public hearing before the zoning board, and its report of findings of fact and recommendations shall be made to the county board following the public hearing; provided, that the County Zoning Board, in its report of findings of fact and recommendations to the County Board, shall not recommend a special use unless the zoning board shall find:

- A. That the establishment, maintenance or operation of the special use will not be unreasonably detrimental to or endanger the public health, safety, morals, comfort or general welfare;
- B. That the special use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood;
- C. That the establishment of the special use will not impede the normal and orderly development and improvement of surrounding property for uses permitted in the district;
- D. That adequate utility, access roads, drainage and/or other necessary facilities have been or are being provided;
- E. That adequate measures have been or will be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets and roads;
- F. That the special use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the county board pursuant to the recommendations of the zoning board of appeals. “

Note the ZBA can only consider the Petition and plans as submitted. The “BURDEN” to prove these above criteria is on the Petitioner. These original plans are woefully inadequate and so is the revised plans submitted on or about December 19, 2023. I predict the Petitioner will indicate that they will meet all requirements without any

definitive plan to do so other than a promise such as “ the best management plans available” or “ the best practices” which is insufficient. The Petitioner cannot amend its Petition and Plan just prior to or at the ZBA

Furthermore, there is no question cutting off the easement access to the other concerned property owners will make their property that is farmed worthless, as it will no longer be able to be used as farmland as it will be landlocked. The alternative methods for access proposed by the Petitioner are not economically feasible if allowed at all. Additionally, a variance for said access will likely be denied.

Note the ZBA can only consider the Petition and plans as submitted. These plans are woefully inadequate.

It is clear that the plans as submitted by the Petitioner fails under the 6-requirement including but not limited to the following requirements:

- A. That the establishment, maintenance or operation of the special use will be unreasonably detrimental to or endanger the public health, safety, morals, comfort or general welfare;
- B. That the special use will be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, and will substantially diminish and impair property values within the neighborhood;
- C. That adequate utility, access roads, drainage and/or other necessary facilities have not been or are not being provided;
- D. That adequate measures have not been and will not be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets and roads;
- E. That adequate measures have not been or will not be taken to provide ingress and egress so designed as to minimize traffic congestion in the public streets and roads;

Petition 4616 should be not be recommended by The Kane County Zoning Board of Appeals.

Sincerely,

Stuart A. Petersen

Stuart A. Petersen



Transcript of Public Hearing - Petition 4616
Conducted on September 12, 2023

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1 walking distance.

2 The issues here are shared by all of the
3 residents. As the zoning review committee, it is
4 not responsible nor ethical to agree to place your
5 residents and the constituents to these risks and
6 undue financial hardship. You have no choice but
7 to ethically vote to reject Petition 4616.

8 Thank you, Honored Committee Members.

9 CHAIRMAN PLONCZYNSKI: Thank you.

10 Over there, ma'am.

11 MS. CIMMARRUSTI: Good evening. I wanted
12 to -- oh, Denise Cimmarrusti, 317 East South Street,
13 Elburn, Illinois.

14 I wanted to just kind of touch base on
15 something and give everybody a little background.
16 I work with the Brandonisios to establish their
17 vineyard. So I'm not sure how many are familiar
18 with grapes and their growing, and I won't bore
19 everybody with the details, but having a solar
20 farm that close to a vineyard is of great concern
21 to the Brandonisios and myself.

22 We don't know what the impact of it is.
23 Solar panels, from what I have been gathering
24 recent information on shows that the ambient

1 temperature of solar panels heats up to around
2 35 degrees. And you may not think that's great,
3 but in the early spring when grapes are still
4 dormant, just a slight fluctuation of warm
5 temperatures, with having wind blowing off those
6 panels toward the vineyard might be enough to
7 cause an early bud break. And as was touched on
8 earlier, having an early bud break could be
9 detrimental to the first bud.

10 Grapes can break out several times. The
11 first time they break out you lose the great
12 majority of the crop. If it were to happen again,
13 you'd get a very small crop. If it happens a
14 third time in a short -- you know, in that same
15 season, you'll lose the whole vine.

16 Grapes take seven years to start before
17 they'll actively produce, so we do have a lot of
18 great concern that having that solar panel that
19 close and not knowing the extent of, you know,
20 what ifs could be very problematic to the vineyard.

21 There was also mention of ground cover
22 crops, and I just thought of that when that was
23 mentioned earlier. Cover crops have a tendency to
24 harbor rodents like voles and field mice, and

1 those types of animals do chew vines and fruit
2 trees, and that's exactly what the vineyard and
3 the fruit trees in the Brandonisio property contain.

4 So I would vote no just for that sheer
5 fact that we don't really know the repercussions
6 of having that solar field so close by.

7 Thank you.

8 CHAIRMAN PLONCZYNSKI: Thank you. Is that
9 everybody?

10 (No response.)

11 CHAIRMAN PLONCZYNSKI: Going once, going
12 twice.

13 Anybody --

14 AUDIENCE MEMBER: Excuse me.

15 CHAIRMAN PLONCZYNSKI: -- on the Zoom call --
16 hold on a second.

17 Anybody on the Zoom call want to say
18 anything?

19 (No response.)

20 CHAIRMAN PLONCZYNSKI: Go ahead, sir.

21 MR. JOHNSON: Good evening, thank you for
22 letting me speak. My name is Richard Johnson.
23 I'm one of the petitioners, and I appreciate Andy
24 speaking on our behalf earlier.

Rhody Today

URI > Rhody Today

Media Contact:

Todd McLeish 401-874-2116

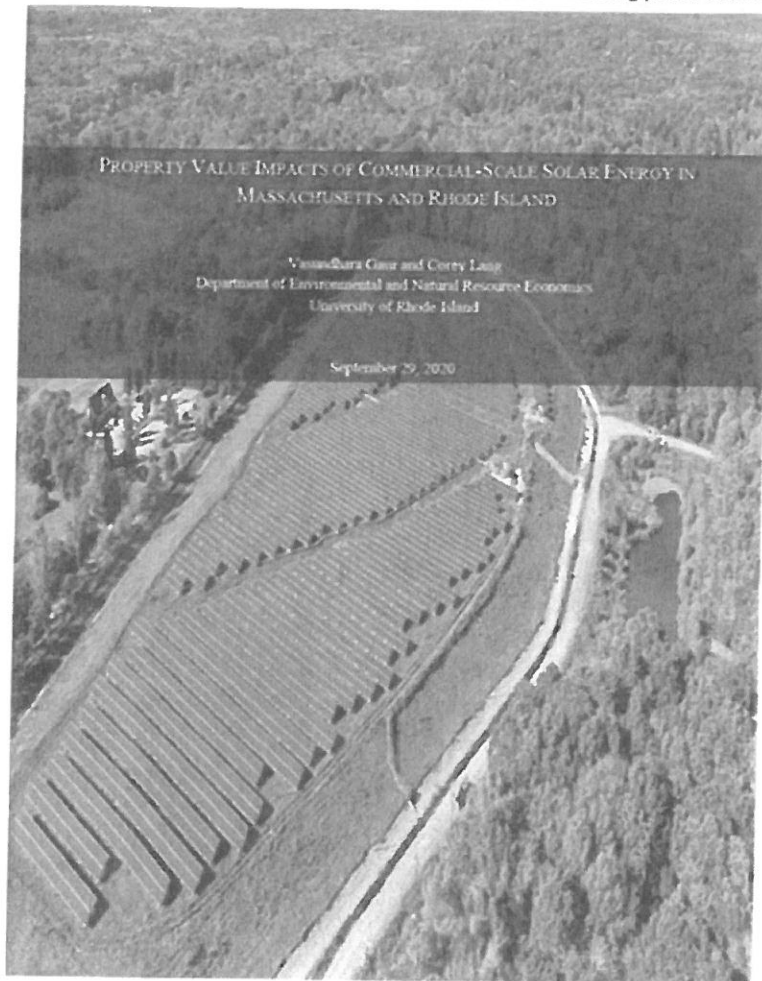


September 30, 2020

Share:

URI researcher: Housing prices decline within mile of solar energy arrays

'We need to be smarter in siting solar installations'



KINGSTON, R.I. – September 30, 2020 – A study of the impact of utility scale solar power installations on nearby housing prices by University of Rhode Island economists found that house prices within a mile of a Rhode Island or Massachusetts solar array declined by an average of 1.7%. Homes within a tenth of a mile of the installations declined by 7%.

Those are among the findings of a report issued today by Corey Lang, URI associate professor of natural resource economics, and doctoral student Vasundhara Gaur. They discussed their study last night as part of a virtual lecture series sponsored by the URI Cooperative Extension.

“Utility-scale solar energy has been growing in southern New England over the past several years, and while it’s a really good thing to transition away from fossil fuels, it also

comes with a new set of challenges,” said Lang. “It has become a contentious land-use issue because solar arrays take up quite a bit of land per unit of energy produced.”

The biggest issue of contention between residents and solar developers is siting, according to Lang. The easiest and cheapest locations for installing solar arrays are on farmland and forested properties, and yet those are areas particularly prized by residents, who would prefer that the installations take place on previously developed properties.

To better understand these issues and their financial impact on housing values, Lang and Gaur reviewed 400,000 housing transactions between 2005 and 2019 within three miles of one of 284 sites where a solar array would eventually be installed.

“Solar power has benefits, and most people are aware of those benefits, but there are some downsides to living near a large array. It’s an industrial-looking land use, and there are ecological concerns associated with them, and people may not want to live nearby,” Lang said. “We wanted to understand how nearby property values respond when a solar array is built.”

By looking at how housing prices changed from before to after the installation of a solar array, the researchers found that property values within one mile declined by an average of \$5,751 or 1.7%. This translates into approximately \$279 per year that buyers are willing to spend on a home purchase to avoid living near a solar installation.

“That’s not an enormous figure, but if you sum all of the properties within one mile of an array, that number becomes pretty big in terms of the total loss of value,” Lang said.

Not every property is affected in the same way, however. The biggest negative impacts were in suburban communities when a solar array was installed on a farm or forested property.

“When a farm or forest is developed into solar and there is a scarcity of that type of land in the area, you get a double negative – you lose the farm and forest amenities that are highly valued, and you get the disamenities of a solar development,” Lang explained. “Losing that natural area and replacing it with something industrial is where the biggest negatives arise.”

In those circumstances, the researchers found that housing prices within a mile of the solar installation declined by 5%.

By calculating the value of the reduction in carbon emissions from the solar installation and comparing it to the loss in housing value due to the installation, Lang said that the benefits of solar energy installations are outweighed by the costs to nearby property owners.

“What this means is that we need to be smarter in siting our solar installations,” Lang said. “We should be building in areas that don’t have a lot of properties close to the array. And not building on farm and forest land in nonrural areas would significantly help the calculation.

“If we can incorporate people’s preferences into siting decisions and into the benefit-cost analysis, then we can flip this result and the global benefits of solar installations will outweigh the local disamenities,” he added.

Lang’s next study will examine how best to incorporate people’s preferences for specific solar array attributes into siting decisions. Both projects are funded by a grant from the U.S. Department of Agriculture.

[CLICK HERE TO DOWNLOAD THE REPORT]

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Transcript of Public Hearing - Petition No. 4616
Conducted on November 14, 2023

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1 they're smaller; they're about 10 acres in size
2 but very, very similar to these, I have seen that
3 Chisago County assessor and other people in the
4 County have very closely watched property values
5 related to our projects as well as a very large,
6 several-hundred-acre commercial solar project that
7 was approved and has been operating in Chisago
8 County since 2016/2017 time frame, and they have
9 seen no impact to residential property values
10 anywhere near the solar projects.

11 MEMBER STOFFA: What is the width of the
12 access road off of Illinois Route 38?

13 MR. MELKA: We would build about 12 feet.
14 The easement itself is -- sorry; not easement --
15 the flagpole is 60 feet.

16 MEMBER STOFFA: You do not have permits
17 yet from IDOT?

18 MR. MELKA: Correct. Blair and Rich
19 previously worked with IDOT to get their existing
20 one, and that is one of the stipulations that I
21 believe will be in place that KDOT has already
22 recommended as a stipulation for our project.

23 MEMBER STOFFA: So the flagpole technically
24 doesn't exist yet?

1 MR. MELKA: It very much exists. It's
2 Blair and Rich's property.

3 MR. STOFFA: It exists on their property
4 the 12 feet you're talking about developing?

5 MR. MELKA: They own a 60-foot width from
6 38 down to their 38-acre farm field, 38 and change.
7 We would anticipate constructing an access road
8 about 12 feet wide. We sometimes like 15 feet,
9 but, you know, it's in that 12- to 15-foot range
10 for our long-term access to the solar facility.
11 It would terminate in a turnaround. You can see
12 there up in the northeast corner of the solar
13 array there's a turnaround there, and then ComEd
14 would extend a line and a few poles in that area,
15 as well, to connect to our main power transformer
16 and the rest of the equipment which would be
17 within the site itself and also 50 feet back from
18 any property lines.

19 MEMBER STOFFA: And the Kaneville Fire
20 District had no comments on this?

21 MR. MELKA: As far as I know. That was
22 what we heard from staff.

23 MEMBER STOFFA: I think that needs to be
24 investigated, also. I can't believe Kaneville

1 hasn't got a comment on that because that does not
2 allow enough access.

3 MR. MELKA: The 12 feet?

4 MEMBER STOFFA: Yeah. That's a driveway.
5 I just don't understand why Kaneville wouldn't
6 have already put something in.

7 AUDIENCE MEMBER: I can --

8 CHAIRMAN PLONCZYNSKI: We're done with the
9 public part.

10 AUDIENCE MEMBER: We can answer that
11 question.

12 AUDIENCE MEMBER: I can answer that
13 question. They didn't talk to Kaneville. I
14 talked to the fire chief.

15 MR. MELKA: I made no representation that
16 I spoke with anybody from Kaneville.

17 CHAIRMAN PLONCZYNSKI: This one is Elburn
18 Countryside. I'm looking where it went to.

19 MEMBER STOFFA: It's a Kaneville address.
20 Elburn is adjacent to, so they would --

21 CHAIRMAN PLONCZYNSKI: Let me see which
22 fire district got it.

23 MR. MELKA: I have experience with fire
24 departments commenting on solar facilities like

1 these. I've never had anybody ask for more than a
2 12-foot-wide road or roughly around there, you
3 know, for ambulance access.

4 MEMBER STOFFA: I will speak to this.

5 CHAIRMAN PLONCZYNSKI: It says Kaneville
6 Fire District got the certified letter.

7 MEMBER STOFFA: I'm retired from Elburn
8 and I completely am amazed that Kaneville doesn't
9 have any comments, but you have to take into
10 consideration it is a very small fire district,
11 but I think their attorney would want to speak on
12 behalf of this item.

13 MR. MELKA: I'd be happy to include that
14 as a stipulation of our approval that we have
15 further conversations -- that we have
16 conversations --

17 MEMBER STOFFA: In this day and age you
18 don't do stuff without comments from the fire
19 district, who with this liability and danger as
20 far as people working on this type of equipment to
21 have access in, not only for fire service -- of
22 course, dealing with solar farms is so different
23 than anything we ever dealt with years ago in the
24 fire service, but as I teach at the university,

1 this 12-foot roadway just doesn't --
2 MEMBER ARIS: Mr. Chairman --
3 MEMBER STOFFA: I think we need to talk --
4 MEMBER ARIS: -- did we send it to Kaneville?
5 CHAIRMAN PLONCZYNSKI: Yes.
6 MEMBER ARIS: So we sent it to Kaneville.
7 MEMBER STOFFA: Well, I'm deeply concerned
8 that you didn't get the answer we needed.
9 CHAIRMAN PLONCZYNSKI: We can follow up.
10 We can make that a stipulation.
11 MEMBER ARIS: We can make that a stipulation.
12 MEMBER ARMSTRONG: Circling back to the
13 aspect of sending, did we not cover in our last
14 meeting the requirement that something needs to be
15 certified or not? The gentleman made an assertion
16 again that it needed to be certified.
17 MEMBER STOFFA: I think Keith said he's
18 going to check into that.
19 MEMBER WILSON: I think it said they had
20 to certify that they had sent it to those people.
21 It didn't say they had to send it via certified;
22 they just had to certify that they had sent
23 something to those organizations.
24 (Simultaneous speaking.)

1 CHAIRMAN PLONCZYNSKI: They don't require
2 the green cards, Stuart.

3 MR. PETERSEN: I understand that but check
4 the file. The certificate that you're supposed to
5 have isn't even in there or the mailing to the
6 fire departments.

7 CHAIRMAN PLONCZYNSKI: We'll check with it.

8 MEMBER ARMSTRONG: I had one other -- I
9 lost my train of thought there. I had one other
10 thing to ask there to follow up with, but I lost
11 my train of thought; I'm sorry.

12 CHAIRMAN PLONCZYNSKI: That's okay.
13 Anybody else have any questions?

14 No, we're done, ma'am, with the public end
15 of it.

16 I just want to ask the question. When you
17 get into the findings of fact regarding the special
18 use, how are you going to meet the Finding of Fact B
19 that the special use will not be injurious to the
20 use and enjoyment of the property in the immediate
21 vicinity for the purposes already permitted nor
22 substantially diminish and impair property values
23 within the neighborhood?

24 MR. MELKA: I believe that the ZBA has

1 seen extensive evidence from all the different
2 solar projects that you reviewed that there's no
3 substantial diminishment of neighboring property
4 values.

5 With regards to the use and enjoyment of
6 property, I believe we have established that
7 there's no impact to the use. All these
8 properties, we have no impact on their ability to
9 use their property as they see fit.

10 We're not impacting anybody's reasonable
11 access. Just because they've used it a few times
12 for convenience doesn't mean it's an established
13 use that we would be impeding.

14 I don't believe there is an impact, and if
15 the Board feels otherwise, I would like to hear
16 what you believe the impact -- or failures of our
17 ability to meet that finding of fact are so that
18 we can address them through modifications or
19 stipulations if need be.

20 CHAIRMAN PLONCZYNSKI: Again, regarding
21 the findings of fact of the special use and what
22 Mike has brought up with adequate measures have
23 been taken regarding ingress and egress design to
24 minimize public congestion on the public streets



Special Use application: #4616

This application does **NOT** meet Illinois State and Kane County regulations

1. 50 ft setback from non participating
2. Vegetative screen
3. Land Use results

** Legal action re: Easement/land dispute*

1. 50 ft setback from non participating

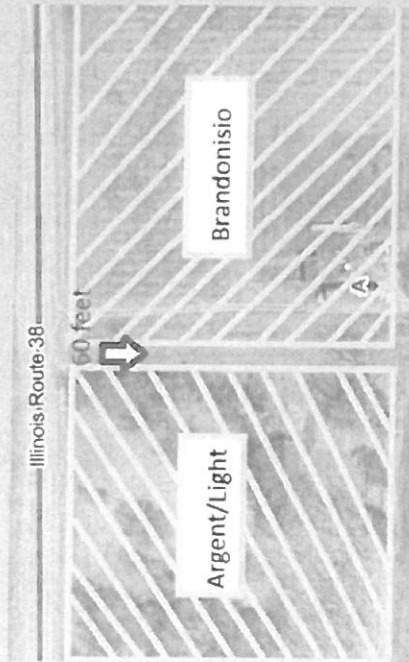
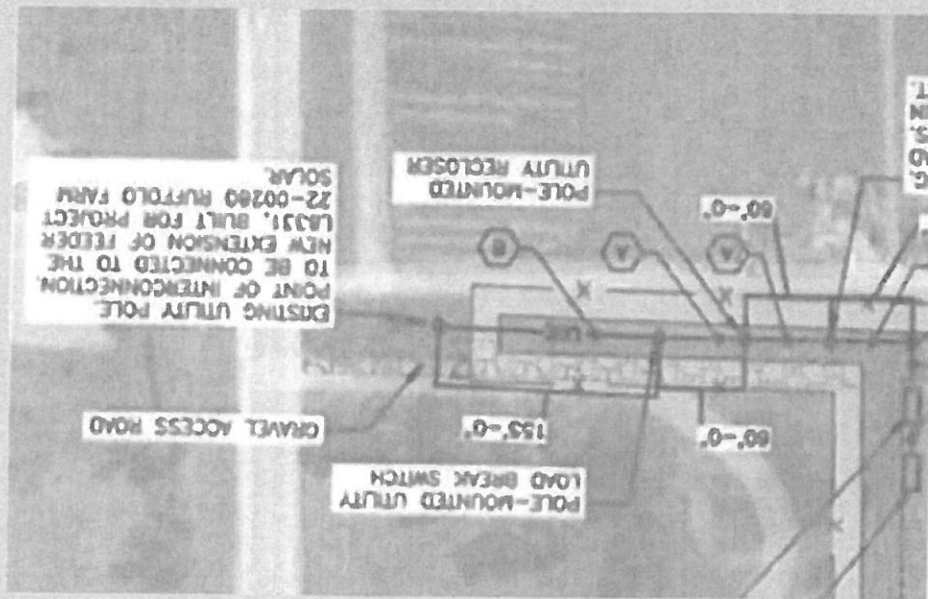
IL Public Act 102-1123

Page 15-16

(3) a commercial solar energy facility to be sited as follows, with setback distances measured from the nearest edge of any component of the facility: Boundary Lines of 50 feet to the nearest Nonparticipating Property point on the property line of the nonparticipating property

Page 10:

"Supporting facilities" means the transmission lines, substations, access roads....



Soil Interpretations: Lawn and Landscaping

- Page 19
- Red means Very Limited, and poor performance and high maintenance are to be expected.

“Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained.”

A continuous vegetative screen of trees, per the IL and Kane County laws, would be almost impossible to establish and maintain along the majority of the eastern and southern edges of the property.

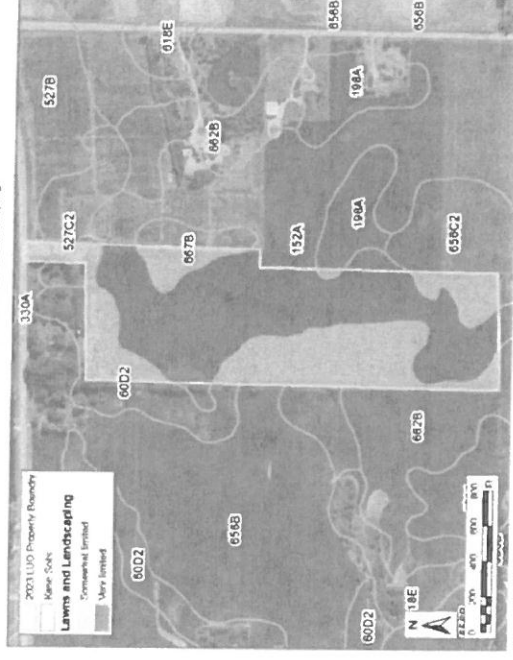


Figure 12: Soil Interpretations for Lawns and Landscaping

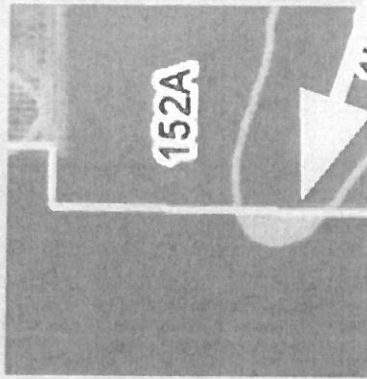
Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are pH (acidic or alkaline conditions), depth to a water table, ponding, depth to bedrock, the available water capacity in the upper 40 inches, and the content of calcium carbonate. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the

surface layer. The high-water table is often a limiting factor in Kane County.

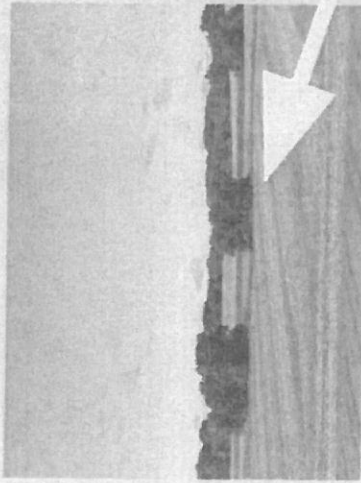
Areas not shaded represent NOT LIMITED, and good performance and very low maintenance can be expected. Yellow represents SOMEWHAT LIMITED, and fair performance and moderate maintenance can be expected. Red represents VERY LIMITED, and poor performance and high maintenance are to be expected.

See the preceding Soils Section for more information concerning soil limitations.

Soil Interpretations: Lawn and Landscaping



My full western property line.



The only trees are in that yellow area. Grew with little/no maintenance.

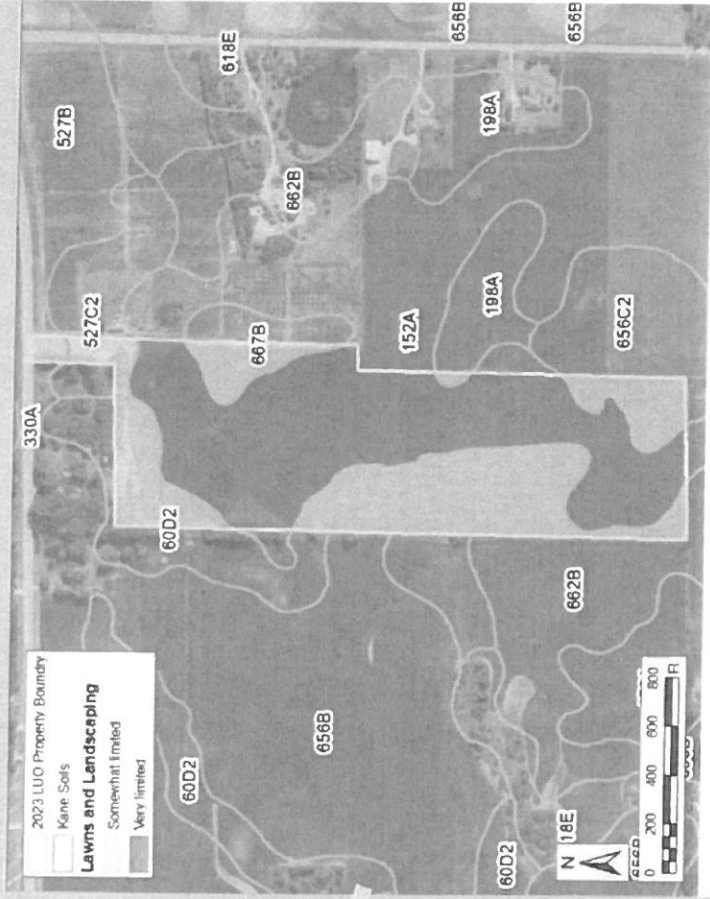


Figure 12: Soil Interpretations for Lawns and Landscaping

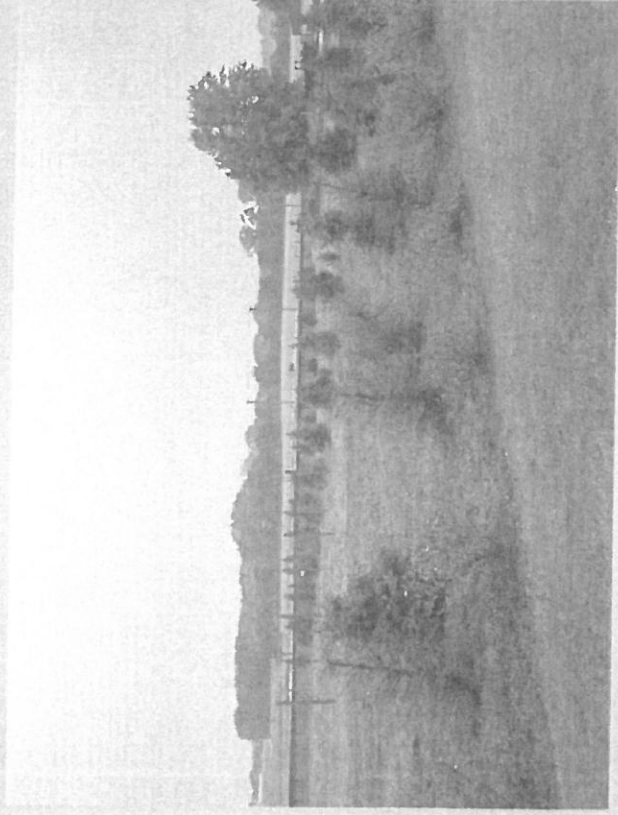
Red means Very Limited, and poor performance and high maintenance are to be expected.

Kane Co. #5007, page 24, Design and Installation

Vegetative Screening: A vegetative screen shall be provided for any part of the Commercial Solar Energy Facility that is visible to Non-participating Residence(s). The landscaping screen shall be located between the required fencing and the property line of the participating parcel upon which the facility sits. The vegetative screening shall include a continuous line of native evergreen foliage and/or native shrubs and/or native trees.

Cortland Township - Dekalb County

- 2 megawatt facility
- Airport Road and Bethany Road
- Approved February 11, 2019



Soil Interpretations: Solar Array, Soil-based Anchoring Systems

- Page 20
- Red means Very Limited, and poor performance and high maintenance are to be expected.

74.7%, the majority of the property, falls in the VERY LIMITED category when specifically talking about installing solar arrays.

This property is not suited for a commercial solar installation.

SOIL INTERPRETATIONS - Solar Array, Soil-based Anchoring Systems

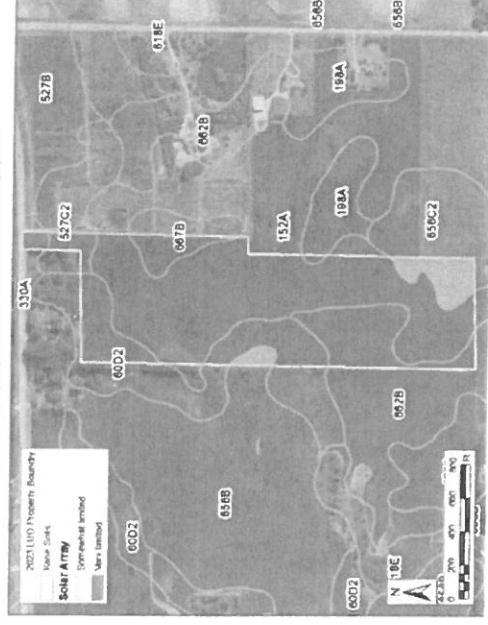


Figure 13: Soil Interpretations for Solar Arrays, Soil-based Anchoring Systems

Ground based solar arrays are sets of photovoltaic panels that are not installed on a building or pole. These systems consist of a racking system that holds the solar panels in place and the foundation and the foundation structure that hold the racking system to the ground. Two basic methods are used for anchoring systems to the ground, based on site conditions and topography: drilled anchor bolts, screw anchors, or concrete piers that penetrate into the soil to provide a stable foundation. The other basic anchoring system utilizes precast ballasted footings or ballasted trays on the soil surface to make the arrays too heavy to move. The site considerations that impact both basic systems are slope, slope aspect, wind speed, land surface shape, flooding, and ponding.

Soil penetrating anchoring systems can be used where the soil conditions are not limited. Installation of these systems requires some power equipment for hauling components and either driving piles, turning helices, or boring holes to install the anchoring apparatus. The high-water table is often a limiting factor in Kane County.

Areas not shaded represent NOT LIMITED, and good performance and very low maintenance can be expected. Yellow represents SOMEWHAT LIMITED, and fair performance and moderate maintenance can be expected. Red represents VERY LIMITED, and poor performance and high maintenance are to be expected. See the preceding Soils Section for more information concerning soil limitations.

Prime Farmland - Land Evaluation and Site Assessment

- Page 23
- Pink means prime farmland - 22%
- Purple means prime farmland if drained - 57%

Based upon the LESA score of 84, and the Kane County Land Evaluation and Site Assessment, this tract warrants Moderate Protection effort from development.

Sites with a LESA score of 85 or greater are considered to warrant protection. This site is 1 point away and within the margin of error.

79% of this property is prime/prime if drained farmland.

PRIME FARMLAND - LAND EVALUATION & SITE ASSESSMENT

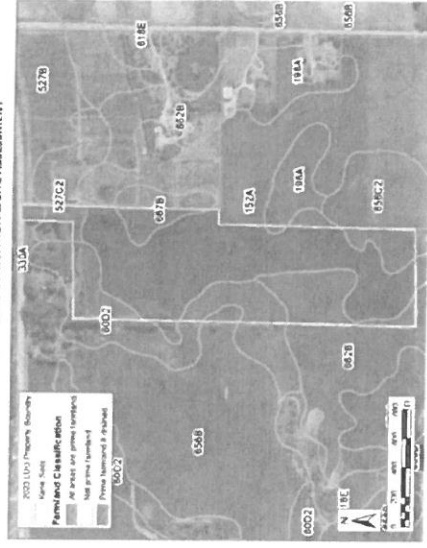


Figure 16: Prime Farmland map

Prime Farmland is a designation assigned by the U.S. Department of Agriculture to the land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, and other crops and is also suitable for these land uses. The Prime Farmland designation is assigned to each soil map unit.

In addition to Prime Farmland, there is Farmland of Statewide Importance (Important Farmland) slightly outside the definition of Prime Farmland. Prime and Important Farmlands are valuable for Kane County agriculture, ag. industry, and county tax base in order to protect the best farmland. A Land Evaluation and Site Assessment (LESA) system was

developed and adopted by Kane County in 2003. LESA is designed to determine the quality of land for agricultural uses and to assess a site for long term agricultural economic viability. The LESA is a 100-point evaluation (LE) and a Site Assessment (SA). The LE is based upon the inherent ability of the soils of a parcel to produce commonly grown crops. The LE is 1/3 of the total score. The SA is a value based on the proximity of the parcel to agricultural areas. Parcels further from developed areas earn higher for protection. The SA counts for 2/3 of the LESA score. The LE value for this site is 28.8 and the SA value is 55.19 for a total LESA score of 84. This score represents Moderate.

Land Use Opinion Summary

- Page 28
- Only 23% is highly or potentially erodible land
- 74.7% of the land is very limiting for a solar array
- 57.3% is very limiting for lawns and landscaping (and it is the majority of the eastern and southern edge of the property)
- Crops are NOT lawn/landscaping
- 57.6% of the land is very limiting for shallow excavations to build the supports for the solar panels

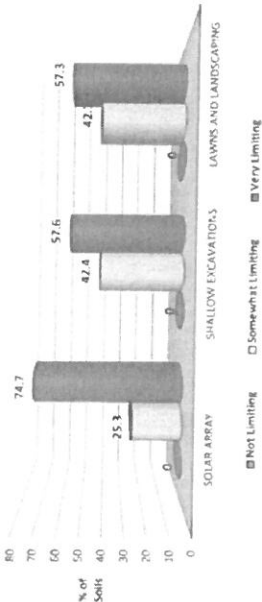
EXECUTIVE SUMMARY
APPLICATION 23-049
AUGUST 11th, 2023

Highly Erodible Land: There are Highly or Potentially Highly Erodible Land identified on this site. (See [page 14](#))

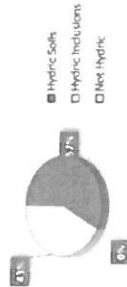


Regulations: Please note that additional permits are required for any development impacting wetlands, streams, or floodplain areas. (Please see [page 24](#) for regulation information.)

Soil Interpretations: Soils at this site may contain limitations for the proposed use. All information is from the Soil Survey of Kane County, Illinois. The limiting factors for this site are: Slope, Dusty, Ponding, Depth to saturation zone, Low exchange capacity, unstable excavation walls, Frost action, low strength, shrink swell, steel corrosion (See [page 16](#) and attached [Soils Tables on page 17](#))



Hydric Soils: There are hydric soils and/or soils with hydric inclusions identified on this site. (See [page 22](#))



Land Use Opinion Summary

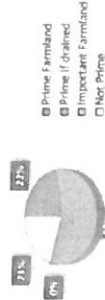
- Page 29
- 79% of the site is prime farmland or prime if drained farmland
- LESA score is 84, placing it in the moderate protection category for farmland
- Sites with a LESA score of 85 or greater are considered to warrant protection

LAND USE OPINION

23-049

EXECUTIVE SUMMARY APPLICATION 23-049 August 11th, 2023

Prime Farmland, Prime and Important Farmland occur on this tract.



LESA: Sites with a LESA score of 85 or greater are considered to warrant protection. This site has an LESA score of 84, and a SA score of 55.19, with a total of 84, placing it in the moderate protection category for farmland. (See page X for more information.)

LAND USE OPINION

The most current natural resource data indicates the following concerns for this site: **Soil Limitations and Aquifer Sensitivity**. These concerns need to be managed, monitored, and/or considered in the planning and development of the site for the best possible results and for the least negative impact to the environment and natural resources.

Based upon the LESA score and the Kane County Land Evaluation and Site Assessment, this tract warrants **Moderate** Protection effort from development.

Based on the information in this report, it is the opinion of the Kane-DuPage Soil and Water Conservation District Board that this site is **somewhat** suited for the proposed land use change.