



City of
GREENFIELD, MASSACHUSETTS

ZONING BOARD OF APPEALS

Town Hall • 14 Court Square • Greenfield, MA 01301
Phone 413-772-1549 • Fax 413-772-1309
EricT@greenfield-ma.gov • www.greenfield-ma.gov

William F. Martin
Mayor

Members:
Twarog, Eric
Director, Planning & Dev.

Allis, Brickett (2018)
Killeen, Andrew (2019)
Maloney, Mark (2019)
Winn, James (2020)
Wozniak, Peter (2020)

ZONING BOARD OF APPEALS

Minutes of June 14, 2018

**Department of Planning and Development
114 Main Street**

The meeting was called to order by Chair, Mark Maloney at 7:00 p.m. with the following members:

PRESENT: Mark Maloney, Chairman Andrew Killeen, Clerk James Winn
Peter Wozniak

ALSO PRESENT: Northeast Solar representative Rustin Ingold-Smith; and members of the public

CHAIRS STATEMENT: This meeting is being recorded, if any other persons present are doing the same, you must notify the chairperson at this time. No one responded.

Public Hearings:

- a. 7:00 p.m.: Application of Northeast Solar for property located at 192 Petty Plain Road (Assessor’s Map R42, Lot 24), which is located in the Urban Residential (RA) Zoning District, for a Special Permit pursuant to Sections 200-7.16 and 200-8.3 of the Zoning Ordinance in order to allow the installation of a 40 panel ground-mounted solar PV system at this location.

Chairman Maloney explained the public hearing process to the Applicant. Killeen read the public notice into the record. Members sitting were Mark Maloney, Chair; Andrew Killeen, Clerk; James Winn; and Peter Wozniak. Also in attendance was Northeast Solar representative Rustin Ingold-Smith, and members of the public. Chairman Maloney explained to the Applicant’s representative that the issuance of a special permit requires a super majority vote of the ZBA which is 4 affirmative votes. Chairman Maloney gave the option for the hearing to be continued to their next meeting when all five members are present. Mr. Ingold-Smith elected to be heard at this meeting.

Maloney Introduced the Board members sitting and asked the Applicant to introduce himself and explain what he wants to do, where he wants to do it, and why.

Ingold-Smith Stated that the project is to install a 40-panel ground-mounted solar system at this property. He stated that this would be a pile earth-driven system for the poles and not set with concrete. He also stated that this system would consist of two separate arrays. They are proposing to put the array system in the back yard of the property which is surrounded by a fence. There is an existing old barn structure in the back yard as well.

Maloney Inquired who the owner of the property is.

Ingold-Smith Responded Service Net, Inc. The system is being installed to off-set energy consumption at the property for electricity. He also stated that this is part of a donation project.

Maloney Asked the Applicant to explain what a donation project is.



City of
GREENFIELD, MASSACHUSETTS

ZONING BOARD OF APPEALS

Town Hall • 14 Court Square • Greenfield, MA 01301
Phone 413-772-1549 • Fax 413-772-1309
EricT@greenfield-ma.gov • www.greenfield-ma.gov

William F. Martin
Mayor

Members:
Twarog, Eric
Director, Planning & Dev.

Allis, Brickett (2018)
Killeen, Andrew (2019)
Maloney, Mark (2019)
Winn, James (2020)
Wozniak, Peter (2020)

- Ingold-Smith He stated that there are two angel donors (generous residents of Greenfield) for this project and that Northeast Solar is part of this donation project as well.
- Maloney Asked for clarification that the system will be 2 twenty foot arrays.
- Ingold-Smith Responded yes.
- Maloney Inquired if they received an Interconnection Agreement with Eversource and where do the cables go to.
- Ingold-Smith Responded yes for the Interconnection Agreement and that the cables trenching route will go to the meter on the northeast corner of the building as depicted on the submitted site plan.
- Maloney Inquired if there are any rights-of-ways or easements that the system would need to infringe upon. Also inquired if there are any waterlines, pipelines, or other electrical cables in the area of the trenching route.
- Ingold-Smith Responded no.
- Wozniak Inquired if the submitted application materials that show specs from Hyundai is different from what was presented.
- Ingold-Smith Responded that Hyundai is the brand of the panels that would be used for this project.
- Wokniak Inquired if the Applicant reviewed the proposed pad system with the Inspector of Buildings to ensure that they can support the system panels.
- Ingold-Smith Asked if he was referring to the racking system.
- Wozniak Responded yes.
- Ingold-Smith He stated that they like to use the earth driven system ground-mount because the only thing truly in the ground would be the toggle bolts which are easily removed.
- Wozniak Stated that he assumes that they have done this type of system before in Greenfield.
- Ingold-Smith Responded that they haven't done one yet in Greenfield but have done such systems in Hadley, Northampton, and Leveret.
- Maloney Inquired where in Hadley this was done.
- Ingold-Smith One was done on Bridge Road off Bay Road and one was done on Route 47.
- Maloney Inquired if these were residential scale systems.
- Ingold-Smith Responded yes.
- Maloney Inquired how high the existing fence is.
- Ingold-Smith Responded around six feet in height.



City of
GREENFIELD, MASSACHUSETTS

ZONING BOARD OF APPEALS

Town Hall • 14 Court Square • Greenfield, MA 01301
Phone 413-772-1549 • Fax 413-772-1309
EricT@greenfield-ma.gov • www.greenfield-ma.gov

William F. Martin
Mayor

Members:
Twarog, Eric
Director, Planning & Dev.

Allis, Brickett (2018)
Killeen, Andrew (2019)
Maloney, Mark (2019)
Winn, James (2020)
Wozniak, Peter (2020)

Maloney Inquired on the existing deciduous tree in the northern corner of the property.

Ingold-Smith Responded that the tree is no longer there so the aerial photo is an out-of-date photo.

Winn Inquired on the life expectancy of the system.

Ingold-Smith Responded that all the components of the system have a 25-year warranty. Stated that the part of the system most likely to fail first would be the solar panels themselves which have a life expectancy of 30 years.

Maloney Stated that a question that came up during a previous review of such a system is on the anchor system. What is its rating in terms of wind impacts?

Ingold-Smith Responded that it is over 200 miles per hour.

Maloney inquired of the Board members if they have any additional questions at this time. The Board members responded no.

Chairman Maloney opened up the hearing for public comment.

Mary Sirum, 60 Solar Way, Greenfield

Stated that the Wisdom Way Solar Village Condominium Trust submitted written comments to the Board with detailed questions, many of which were not yet addressed. Inquired on who Phippen Adams, LLC is.

Ingold_Smith Responded that without giving way actual names, that this LLC is the donor organization.

Chairman Maloney interrupted the exchange and stated that this is not a direct Q&A between abutters and the Applicant and further clarified that the Board will ask these questions and get the answers needed.

Ms. Sirum read the additional questions from the handout which are hereby made a part of these meeting minutes.

Emma Morgan, 50 Solar Way, Greenfield

Ms. Morgan stated that her primary concern over even the questions already posed by the Condominium Trust is the impacts that the proposed solar array could have on her as a person with significant disabilities. Stated she was born with a complex neurological disorder which has no cure and then in early adulthood she acquired two immunological illnesses which are disabling. Solar Village's commitment to an environmentally clean area free of herbicides and pesticides is one of the reasons she moved there. Stated that she is low-income and received state and federal subsidies in order to purchase her home. She lives on the northern property line of Solar Village which is directly across from the proposed array so would experience solar glare from the array. Stated that her illnesses make her vulnerable to certain types of glare and electromagnetic waves. Expressed concerns about the panels being twice the height of the existing fence. Requested that the panels be put on a rooftop or move to a non-residential area.

Armen Margosian & Ted Hinman, 186 Petty Plain Road, Greenfield

Ms. Margosian stated that their home is not in Solar Village but right next door to it. Stated that they support solar development if it is done on rooftops. Expressed public safety concerns about the existing dilapidated barn falling down.

Maloney Asked for clarification on the location of their house.



City of
GREENFIELD, MASSACHUSETTS

ZONING BOARD OF APPEALS

Town Hall • 14 Court Square • Greenfield, MA 01301
Phone 413-772-1549 • Fax 413-772-1309
EricT@greenfield-ma.gov • www.greenfield-ma.gov

William F. Martin
Mayor

Members:
Twarog, Eric
Director, Planning & Dev.

Allis, Brickett (2018)
Killeen, Andrew (2019)
Maloney, Mark (2019)
Winn, James (2020)
Wozniak, Peter (2020)

Margosian Pointed out the location of her house on the site plan.

Abutter opposite 186 Petty Plain Road, Greenfield

Expressed concerns about the existing barn falling down which would then not block the proposed solar array.

Adam Thurrell, 41 Solar Way, Greenfield

Mr. Thurrell stated that he is on the Board of the Condominium Trust. He inquired if the proposed setback conforms to the Zoning Ordinance. He expressed concerns about property values.

Helen ?, 161 Federal Street, Greenfield

Expressed concerns about ground-mounted solar installations being done in residential areas as opposed to on farmland.

Maloney Stated that the question of who Phippen Adams, LLC is not relevant to the Board as well as who owns the system. Clarified that ground-mounted systems must come before the ZBA for approval whereas roof-mounted systems only need a building permit. He further stated that the Town Council is considering an amendment to the Zoning Ordinance to allow residential-scale ground-mounted systems by right so if folks are concerned about ground-mounted systems, they should speak with their Precinct Councillor. He also stated that the Board has reviewed several of these systems over the last 4 years or so and has learned that the anticipated negative impacts have actually not turned out to be the case. He stated that in terms of the existing dilapidated barn, that the ZBA has no authority to make Service Net tear down the barn. Only the Inspector of Buildings could make such an order only after making a determination that it presents a public hazard. The Board typically does make conditions relative to screening and can address the issue of the fence if necessary.

Maloney Inquired of the Applicant why a ground-mounted system was chosen over a roof mount system.

Ingold-Smith Responded that one of the first things they do is look at the roof(s) for solar opportunity to reduce infrastructure needs. This particular roof top was not large enough to accommodate a system that would meet the needs to significantly off-set electrical use at the site which is the primary goal of this project. The money saved from electrical use can then be used for their programs and other purposes. In addition, there would have been significant structural improvements to the house itself that would have needed to be done. A roof mounted system would have been more costly than the proposed ground-mounted system. They also looked at the very old barn on the property and found it to be structurally deficient in terms of a roof-mounted system. They looked at the land area where the system is being proposed and saw that the area had no other potential use as there is an old foundation there. On the question of why another Service Net site wasn't considered, he stated that Service Net doesn't have any other property in the same utility footprint as this site that would allow them to tie into the network. On the question of maintenance responsibility, he stated that Service Net is responsible for maintain the grass area and other vegetation on the property. He stated that he cannot speak about their current practices for cutting the grass. He asked for clarification on the question of insurance. Clarification was provided that residents of Solar Village are concerned about liability issues as people snow blow in the winter as well as other potential activities that could impact the solar array. Is there any way to include the residents of Solar Way Village.

Maloney Stated that the issue of insurance is not in the purview of the Board and that the residents could pursue this question/request directly with Service Net. He stated that a common concern of the Board when reviewing these is solar reflection. He asked Mr. Ingold-Smith to address this issue.



City of
GREENFIELD, MASSACHUSETTS

ZONING BOARD OF APPEALS

Town Hall • 14 Court Square • Greenfield, MA 01301
Phone 413-772-1549 • Fax 413-772-1309
EricT@greenfield-ma.gov • www.greenfield-ma.gov

William F. Martin
Mayor

Members:
Twarog, Eric
Director, Planning & Dev.

Allis, Brickett (2018)
Killeen, Andrew (2019)
Maloney, Mark (2019)
Winn, James (2020)
Wozniak, Peter (2020)

- Ingold-Smith Stated that he never personally has been approached by abutters about the issue of solar glare/reflection. He stated that it is all about the angle of the panels and the sun. The angle of the tilt of the rack system could be changed so that it points more directly to the sky. However, this would decrease efficiency of the solar array system.
- Winn Inquired on how much the efficiency would be reduced.
- Ingold-Smith Responded that it depends on how much the tilt is altered.
- Maloney Stated that as he mentioned before, the Board has reviewed quite a few of these over the last several years and it turns out that those abutters who were concerned about glare and reflection never came back with this as an issue once the project was approved.
- Killeen Inquired if any chemical will be used that could affect the ground conditions.
- Ingold-Smith Responded that no chemicals will be used.
- Wozniak Asked a procedural question on how the angle of the racking system would be dealt with if this project is approved. Would Northeast Solar work with the abutters to settle on an angle that is satisfactory to all parties?
- Ingold-Smith Responded that they are a local company that works with residents on projects to address concerns.
- Maloney Stated that if the Board were to approve the application, the angle of the racking system as specified in the application materials would also be approved. Northeast Solar is free to then work with abutters to address any issues of solar glare/reflection.
- A question was asked if the angle of the racking system could be changed after installation.
- Ingold-Smith Responded yes.
- Maloney Inquired about the existing fence.
- Ingold-Smith Responded that the fence is kind of see through, it is a wooden fence about six feet in height.
- Maloney Asked if the fence is dilapidated.
- Ingold-Smith Responded that he was at the site twice and didn't specifically inspect the fence but that it looked like it had aesthetic issues.
- Killeen Read review comments from the Planning Board. Comments in the form of "no comments" were received from the Board of Health, Town Engineer, and Fire Chief.

Public Hearing Closed at 8:04 p.m.

Discussion/Decision



City of
GREENFIELD, MASSACHUSETTS

ZONING BOARD OF APPEALS

Town Hall • 14 Court Square • Greenfield, MA 01301
Phone 413-772-1549 • Fax 413-772-1309
EricT@greenfield-ma.gov • www.greenfield-ma.gov

William F. Martin
Mayor

Members:
Twarog, Eric
Director, Planning & Dev.

Allis, Brickett (2018)
Killeen, Andrew (2019)
Maloney, Mark (2019)
Winn, James (2020)
Wozniak, Peter (2020)

Application of Northeast Solar for property located at 192 Petty Plain Road (Assessor’s Map R42, Lot 24)

MOTION

Moved by Killeen, seconded by Wozniak, and voted 4:0 to approve the application of Northeast Solar for property located at 192 Petty Plain Road (Assessor’s Map R42, Lot 24), which is located in the Urban Residential (RA) Zoning District, for a Special Permit pursuant to Sections 200-7.16 and 200-8.3 of the Zoning Ordinance in order to allow the installation of a 40 panel ground-mounted solar PV system at this location, with the following conditions:

1. The pre-existing fence surrounding the eastern and southern sides of the property shall be replaced with a similar fence with a height of six (6) feet and shall be maintained by the owner of the property; and
2. Arborvitae of no less than four (4) feet in height shall be planted along the southern and northeast sides of the array for the purposes of screening the solar array from abutting properties.

- b. 7:15 p.m.: Application of Northeast Solar for property located at 34 Glenbrook Drive (Assessor’s Map R31, Lot 1), which is located in the Rural Residential (RC) Zoning District, for a Special Permit pursuant to Sections 200-7.16 and 200-8.3 of the Zoning Ordinance in order to allow the installation of a 40 panel ground-mounted solar PV system at this location.

- Maloney Introduced the Board members sitting and asked the Applicant to introduce himself and explain what he wants to do, where he wants to do it, and why.
- Ingold-Smith Stated that the project is to install a 40-panel ground-mounted solar system at this property. He stated that this project is also a solar donation project from the same donors as the 192 Petty Plain Road project. He reviewed the proposed location of the array system with the Board. The trench would be very short as there is a substation close by. It would be about ten feet in length.
- Maloney Inquired who the owner of the property is.
- Ingold-Smith Responded Just Roots.
- Maloney Asked if interconnection permits have been obtained.
- Ingold-Smith Responded yes.
- Winn Inquired if the solar array is for powering their greenhouses.
- Ingold-Smith Responded yes. He stated that Just Roots has a high electrical load and that the proposed array would not 100 percent off-set their needs. He reviewed the power production chart with the Board.
- Maloney Inquired how far the proposed array system is from Glen Brook.
- Ingold-Smith Responded about 120 feet.



City of
GREENFIELD, MASSACHUSETTS

ZONING BOARD OF APPEALS

Town Hall • 14 Court Square • Greenfield, MA 01301
Phone 413-772-1549 • Fax 413-772-1309
EricT@greenfield-ma.gov • www.greenfield-ma.gov

William F. Martin
Mayor

Members:
Twarog, Eric
Director, Planning & Dev.

Allis, Brickett (2018)
Killeen, Andrew (2019)
Maloney, Mark (2019)
Winn, James (2020)
Wozniak, Peter (2020)

- Maloney Inquired if this system is a two rack system or a one rack system.
- Ingold-Smith Responded that it is a one rack system of 782 square feet with a height of 12.5 feet and 68 feet in length.
- Maloney Inquired on how far the nearest habitable structure is.
- Ingold-Smith Responded the apartment building next door to the northwest.
- Maloney Stated that in the past the Board requested elevations of proposed systems to see what the system would look like from the ground from different points. He stated that the Board would not hold that against this particular application as this request may not have been communicated to him.
- Wozniak Inquired on the anchoring system for this array.
- Ingold-Smith Responded that it would be the same as 192 Petty Plain Road which will be a pile earth-driven system.
- Winn Inquired about potential solar glare/reflection on this proposed system.
- Ingold-Smith Responded that these panels are more of a blackish color but has anti-reflection paint just as the system for 192 Petty Plain Road has.
- Maloney inquired of the Board members if they have any additional questions at this time. The Board members responded no.
- Chairman Maloney opened up the hearing for public comment. No public comment.
- Killeen Read review comments from the Planning Board. Comments in the form of “no comments” were received from the Board of Health, Town Engineer, and Fire Chief.

Public Hearing Closed at 8:17 p.m.

Discussion/Decision

Application of Northeast Solar for property located at Glenbrook Drive (Assessor’s Map R31, Lot 1)

MOTION Moved by Killeen, seconded by Wozniak, and voted 4:0 to approve the application of Northeast Solar for property located at Glenbrook Drive (Assessor’s Map R31, Lot 1), which is located in the Rural Residential (RC) Zoning District, for a Special Permit pursuant to Sections 200-7.16 and 200-8.3 of the Zoning Ordinance in order to allow the installation of a 40 panel ground-mounted solar PV system at this location.

Approval of Minutes:

MOTION: Moved by Winn, seconded by Killeen, and voted 4:0 to approve the Minutes from April 12, 2018.



William F. Martin
Mayor

City of
GREENFIELD, MASSACHUSETTS

ZONING BOARD OF APPEALS

Town Hall • 14 Court Square • Greenfield, MA 01301
Phone 413-772-1549 • Fax 413-772-1309
EricT@greenfield-ma.gov • www.greenfield-ma.gov

Members:

Twarog, Eric
Director, Planning & Dev.

Allis, Brickett (2018)
Killeen, Andrew (2019)
Maloney, Mark (2019)
Winn, James (2020)
Wozniak, Peter (2020)

Discussion Item:

Scott Conti and the owners of 2 Mead Street discussed their intention to replace the existing free-standing sign for the property with the Board. Killeen asked for clarification on if the ZBA is just listening at this time or if an action will need to be taken. Maloney clarified that they are just listening at this time. The Board discussed the sign and what property it is located on. Discussion ensued on the proper permitting to allow this sign to be replaced. The Board discussed off-premise signs.

Adjournment:

MOTION: Moved by Killeen, seconded by Wozniak, and voted 4-0 to adjourn the meeting at 8:50 p.m.

Respectfully Submitted,

Eric Twarog, AICP
Director of Planning and Development