

MINUTES

7:30 PM

PRESENT:

R. Dodds
P. Lubitz
S. McNicol
E. Niemann
J. Strasser
M. Syrnick
D. Floyd, Alt. #1
D. Banisch, Planner
T. Decker, Engineer
D. Pierce, Attorney

ABSENT:

T. Kratzer
J. Mathieu

CALL TO ORDER

The meeting was called to order by R. Dodds at 7:32 PM.

NOTIFICATION

In order to ensure full public participation at this meeting, all members of this Board, and members of the public are requested to speak only when recognized by the Chair so that there is no simultaneous discussion or over-talk, and further, all persons are requested to utilize the microphones which are provided for your use by the Township. Your cooperation is appreciated.

Notification of the time, date and place of this meeting has been published in the Hunterdon County Democrat and Courier News, and has been posted in the Kingwood Township Municipal Building at least 48 hours prior to this meeting and has been filed with the Municipal Clerk.

NEW AND PENDING MATTERS

Block 38, Lots 17, 18 & 19.01 – EffiSolar – County Road 519 – Extension of Time to File

J. McCarthy, attorney for the applicant, was present to request a 190 day extension of time to file the deeds.

It was moved by E. Niemann, seconded by D. Floyd and carried to grant a 190 day extension of time to file the deeds for Block 38, Lots 17, 18 & 19.01 – EffiSolar. All members present voted **AYE** on **ROLL CALL VOTE**.

D. Floyd recused himself for the following matter.

Block 21, Lot 1 – Syncarpha Alethea II, LLC – Barbertown Point Breeze Road – Public Hearing

M. Peck, attorney for the applicant, was present this evening for the matter. The applicant has timely served all the required notices. The application is for a major site plan approval requiring no variances. The application is for the installation of 8.2 megawatt solar facility. The property is located at 550 Barbertown Point Breeze Road. It is located in the BP zone. The existing farm house and related structures will be removed. It is the

same application the Board granted approval for on June 9, 2011. The current application has incorporated all the commentaries from the professionals from the original application.

D. Pierce swore in E. Hill.

E. Hill, engineer for the applicant, provided his credentials. The Board accepted E. Hill as an expert.

E. Hill testified the applicant is seeking preliminary site plan approval for an 8.3 megawatt solar farm. The property is identified at Block 21, Lot 1 and consists of residential and accessory structures. The property is approximately 45.95 acres. Route 12 is north of the property and Barbertown Point Breeze is to the left and extends to the west. The existing conditions are depicted on the sheet set before the Board. There are no changes to the site. The applicant has secured their DEP LOI. The LOI was issued in June of 2011. The DEP verified there are four areas of wetlands. All the wetlands have been classified as intermediary wetlands. The applicant placed all the improvements outside of the wetland transition areas. The approval allows the applicant to reforest the wetlands area. The improvements consist of a solar farm with fixed 26% tilt panels pointed in a southerly direction. The back of the panel is 9.1' off the ground. If they do not grade the site, the back of the panel may approach 12'. The application is proposing access off of Barbertown Point Breeze Road. All the residential structures will be demolished. The existing well will be properly capped and the septic system will be abandoned as per NJAC 7:9A regulations. The applicant is proposing seven inverter stations throughout the property. The inverters are housed inside of structures which are 10.5' tall, 30' long and 10' wide. All the electrical equipment will be located inside the structures. There will be an 8' tall chain link vinyl coated security fence around the array. The main entrance will be along Barbertown Point Breeze Road. It will be a 20' wide gravel drive with a double chain link gate which will be secured and locked. There will be a knox box and a solar powered light fixture located at the gate. It is an LED decorative light fixture. It has a very low powered light which will provide sufficient light for an emergency light. The light will come on only during dusk to dawn and is motion activated. It is equivalent to two 100 watt light bulbs. In addition to the inverter stations, there will be a switch gear pad which will be located closer to the driveway access. The purpose of the switch gear is to tie all the electrical power at the site into the JCP&L grid. There is an existing utility pole along Barbertown Point Breeze Road. The application is not proposing any additional utility poles. Outside of the fence, there will be 50' of landscape buffer along the front of the property. They are not proposing any additional landscaping along the east side of the property because it is already buffered. Sheet 9 of 18 provides the details of the landscaping. Evergreen trees will be planted two rows deep and be of a height of 6-8'. The buffering at the northeast corner will be 10' in height. There is a substantial wooded buffer between Route 12 and Barbertown Point Breeze Road. Motorists traveling east on Route 12 will not see the property but travelling west you can see a portion of the property. All the landscaping will be behind the existing tree row. The improvements will be inside the fence. The applicant is proposing to plant meadow grass which grows to approximately 8-12". It is drought and shade tolerant and germinates quickly. It has been used on numerous solar farms that he has been involved in designing. The seed mixture has been around for quite a few years. It is specifically formulated for conditions of sun and shade during the day. In addition to the evergreen buffer, they will plant deciduous trees in the front. As part of the prior application, the applicant had met extensively with the fire and safety officials. The application includes the improvements those officials have requested, such as a few extra gates and additional lighting. The emergency access points will not be stabilized access points. The additional gates will be 6' wide with the same lighting mentioned previously and knox boxes. In speaking with the fire official, there are two areas where they would like to see some gates. The applicant agrees to work with the fire officials until they are comfortable with access to the site. The fire officials prefer to see a stabilized access to the first inverter and alley ways. The applicant is trying to keep the improvements as low maintenance as possible. The applicant is able to demonstrate that stabilized driveways are not necessary for the equipment to service this site. They will be constructed with an earth stabilization material. The chain link fence will be installed 2" off the bottom of the ground so small animals can continue to go in and

out of the facility. The light fixture has a small battery at the base. The battery does not contain any lead acid. The proposed site identification sign at the main entrance is not meant to be an advertising sign. It will contain the owner’s contact information, phone number and address as well as the address of the facility for 911 purposes. The size is 3’ x 5’. He stated the engineer would like to see some smaller placards with emergency contact information. The applicant agrees to the smaller placards. The applicant is willing to change the word “farm” to “facility” on the identifying signage. The last page of the construction detail sheet shows the construction details. It contains the manufacturer’s cut sheet for the solar panels in the upper left. The panels will be 235 watt solar panels. They will have a dark colored background and low reflective or mate finish glass. The distance between the rows is 14.4’, which is sufficient for access for a small vehicle. The bottom edge of the panel is 2’ off the ground and 9.1’ off the surface. The racking system will be installed on galvanized posts which will be drilled or screwed into the ground. The subsurface soils can accommodate a helical post or screw foundation. It is his testimony that the installation will not require concrete foundations for the posts. All the equipment is inside the structures. The structures will have two access doors and smoke detectors on the ceiling. On the prior application, a comment was made to require fire extinguishers at the door. He stated the installation will be dictated by the fire officials. In response to an inquiry by a Board member with regard to the spread of the LED light, he responded Sheet 7 of 18 demonstrates the spread of the light at 16’. The applicant is proposing security cameras which will be stationery and mounted on the fence posts every 100’. The fence posts with the security cameras will be 12’. The cameras cannot be rotated and are focused internal to the site. The final distances of the cameras will be determined by the owner of the facility and the security company.

E. Hill stated he is in receipt of the review letters from the professionals. In T. Decker’s letter, under zoning review, Comment #1, T. Decker commented that the dimension from the switch gear pad to the proposed Barbertown-Point Breeze Road ROW should be provided. E. Hill stated the dimension is 100’. The applicant is granting additional ROW to the Township on Barbertown Point Breeze Road. Under Comment #2, E. Hill stated the applicant is proposing a site identification sign so they will require a design waiver. The identification sign is for security purposes only.

Technical Review

1. Soils types in which the solar facilities are proposed include the following with the arrays located in the AbrA and ChcA soils:

Soil Type	Soil Descriptions	Farmland Classification
AbrA	Abbottstown silt loam 0-2 % slope	Statewide Importance
ChcA	Chalfont silt loam 0-2% slope	Statewide Importance
CoxA	Croton silt loam, 0-2% slope	Statewide Importance

Per Ordinance §132-60A(2), concrete footings for the racking systems or other structures supporting the panels are not permitted within soils of Statewide Importance. Note #3 on the Pier Foundation Detail on sheet 18 of the set states that up to 10 percent of the total number of posts may be secured to the ground by concrete footings. This note should be modified to incorporate the provision of §132-60A(2) prohibiting concrete footings for the solar arrays.

2. Ordinance §132-60A(5) requires that all facilities and structures shall not be visible from roadways. A landscape buffer is proposed along the frontage of Barbertown Point Breeze Road, Route 12 and adjacent to Lot 1.02. Photo simulations should be provided demonstrating the adequacy of the proposed screening. We defer review of the proposed landscaping to Board Planner David Banisch.

The applicant is deferring to the planner on the landscaping requirements.

3. Ordinance §132-60A(6)(a) requires that all facilities and structures shall not be visible from roadways requires submission of a maintenance plan. A five (5) page document titled “Maintenance and Land Surface Management Plan” dated March 2012 has been submitted. This document should be revised as follows:
 - a. The second paragraph on page 2 identifies the lot as Block 21, Lot 9. It should be Lot 1.
 - b. Reference to the existing dwelling and farm structure in the second paragraph on page 2 should be deleted as these features will not exist after completion of the site improvements. The document should be revised to reflect the proposed conditions as existing since the manual anticipates the maintenance of the future site condition.
 - c. The second paragraph on page 2 references information provided in Appendix B and Appendix C. The document does not contain any appendices.
 - d. The first paragraph under “Proposed Improvements” on page 2 references construction of an 8.6 MW system. The current proposal is for an 8.3 MW system.
 - e. The maintenance plan states that washing of the solar panels on a regular basis is not required, however should there be a need to wash them it will be limited to individual panels using environmentally friendly detergents and potable water. Applicant should discuss this process and how the water will be transported throughout the site.

The applicant agrees with 3 a – e. If potable water is necessary, the applicant will utilize a small pickup. The panels are virtually self-clearing in the northeast. There will be no irrigation system. The applicant will manually irrigate the landscaping until it becomes established. The applicant stated there are two wells on the property which have not been tested. The applicant might want to use them if it is acceptable.

- f. Landscaped areas are noted as being irrigated as required by the facility owner to ensure the plantings become well established during the first year. Stabilized lanes may be required to support the weight of water supply vehicles accessing the site.
- g. The maintenance plan should state that all plantings shall be maintained on the site during the duration of the solar facilities operation and replaced as may be needed or directed by the municipality.
- h. A statement that no maintenance is to be conducted after dark except in the case of emergency should be added.
- i. A statement should be added stating that the facility owner/operator shall promptly remove any and all onsite trees which fall on adjacent properties.
- j. A statement should be added that pruning or trimming of landscape plantings for shading that would open up visibility of the solar arrays is prohibited.
- k. Provisions for the prevention and removal of invasive nonnative plant species should be provided.
- l. Provisions should be included for the immediate removal of cut woody and grass materials from the site to prevent build-up of fire load that may contribute to brush fires.
- m. Key elements of the “Maintenance and Land Surface Management Plan” report shall be provided within the plan set.
- n. Maintenance plan is subject to review and comment by the Board Planner.

The applicant agrees with #3 f-n.

4. Ordinance §132-60A(6)(a)[2] requires a seed mixture of native, non-invasive shade tolerant grasses in areas occupied by the solar facility. Applicant should provide testimony regarding the proposed seed mix, its viability and future maintenance needs.

The applicant has provided testimony on the seed mixture.

5. Per Ordinance §132-60A(7)(a) landscape plantings shall be limited to native species of deciduous and coniferous trees and shrubs indigenous to the area as listed in Appendix C of the Kingwood Township Conservation Plan Element. We defer to Township Planner David Banisch regarding the appropriateness of the proposed plantings.

The applicant will be limiting landscaping plantings to native species. He stated the transition areas will be going into conservation areas.

6. Ordinance §132-60A(7)(b) requires a continuous berm within the landscape buffer. Berms are not proposed.

The applicant's position on the proposed plantings is that a landscape berm will not be necessary. The applicant would have to do a lot more grading throughout the site or import a lot of topsoil. It is not necessary and will create more of a disturbance to the site. A landscaping berm that is not done correctly will have an adverse effect on the landscaping materials.

7. Ordinance §132-60A(7)(c) requires that each access gate include a sign identifying the responsible parties for operation and maintenance of facility. Sign details and locations should be provided.

The applicant agrees.

8. Chain link fence materials are proposed to be black vinyl clad along the road frontages and eastern property line. The balance of the fence is proposed as galvanized.

The applicant stated the black vinyl coated fence will be used throughout the entire perimeter.

9. Information should be provided regarding reflection or glare from the panels and framing in accordance with Ordinance §132-60A(10).

The applicant indicated the panels are low reflective which are meant to absorb light. Any glint or glare has been mitigated with existing and proposed vegetation. The applicant indicated all the panels will face south and away from the road.

10. Per Ordinance §132-60A(14), the applicant needs to address stability for wind load.

The applicant stated the racking systems and all components are designed in accordance with the applicable 2009 building code. The state requires a wind load of 90 mph.

11. A note should be added to the plans prohibiting the use of panels containing cadmium telluride.

The applicant stated their panels do not contain cadmium telluride.

12. Per Ordinance §132-60A(16), a decommissioning plan has been submitted in report form. We recommend adding the decommissioning steps to the plan set.

The applicant agrees to the addition.

13. Testimony should be provided regarding shielding of any electric equipment from interfering with radio or television reception at the lot line in accordance with §132-54B.

The applicant stated there are no Electro Magnetic Fields producing components to the system. There will be no overhead lines. All the electrical utilities will be underground. None of the components will interfere with any radio or television reception.

- 14. Testimony should be provided regarding safety and security associated with the proposed improvements.
- 15. A 20 foot wide gravel access drive is proposed from Barbertown-Point Breeze Road to a 16 foot wide gate. Driveway design should be revised to include a flared apron at the drive's intersection with the roadway.

The applicant agrees.

- 16. 20 foot wide stabilized access drives to all components have not been provided as required in §132-61A(7)c. for emergency service apparatus. Adequate maneuverability provided for maintenance and emergency services vehicles should be evaluated and meet to the satisfaction of the Kingwood Township Fire Company and Kingwood Township Rescue Squad.

The applicant is continuing to work with emergency and fire officials.

- 17. Per Ordinance §132-61A(7)d, an exterior electrical disconnect/emergency shutoff which de-energizes the system shall be provided and plainly marked with a reflective placard identification. Location and details are required.

The applicant stated the switch gear contains the disconnect. There are remote switches. The individual inverters have emergency shutoffs. There is a lot of redundancy in the system. The actual components of the switch gear are dictated by the utility. If there is a power outage, the system can be shut off remotely.

- 18. Per Ordinance §132-61A(7)e, the sign proposed at the entrance needs to identify the system as a ground mounted system.
- 19. Ordinance §132-61A(7)f. requires the marking of conduits indicating electrical danger to firefighters and EMT personnel. Notes should be added to the plan in compliance with the ordinance requirement.
- 20. Per Ordinance §132-61A(7)i, one (1) 20 lb CO2 fire extinguisher is to be provided immediately inside each door entering the equipment buildings.
- 21. An emergency response plan is to be prepared and provided to the Kingwood fire Company in accordance with Ordinance §132-61A(7)j
- 22. Per Ordinance §132-61A(7)l, a note should be added to the plan indicating that Material Safety Data Sheets (MSDS) shall be submitted to emergency response providers for all component materials comprising of the solar modules, panels, or arrays or other equipment which contain hazardous or flammable substances.
- 23. A note should be added to the plans in accordance with Ordinance §132-61A(7)m requiring review of site conditions by the Fire Company and Rescue Squad prior to issuance of a certificate of occupancy.
- 24. The Decommissioning Plan should be revised in accordance with Ordinance §132-61A(12) regarding the timing of inactivity, notifications and percentage of active system capacity.
- 25. Applicant should address the ventilation/cooling requirements of the proposed equipment shelters housing the inverters.

26. A 20 foot high solar powered light fixture is proposed at each of the three entrance gates for a total of three(3) proposed fixtures. The light fixture is mounted at a height of 12 feet with a 123 W solar module mounted at 20 feet. Testimony should be provided as to the purpose and use of the light fixtures. Will fixtures operate on a timed basis or motion activated?
27. General Note #18 states that disturbed areas will be tilled and seeded following construction of the improvements. How will tilling be accomplished with underground electric in place and under the arrays if already installed?
The applicant stated all disturbed areas will be tilled and then seeded. The engineer will determine how the tilling will be accomplished. The surface will be pulverized to create adequate topsoil.
28. Conformance with Ordinance §132-111.1 regarding conservation easements and marker is required. Marker locations should be labeled on the plans.
29. In accordance with Ordinance §132-110H, every development application is subject to review and approval by the Kingwood Township Fire Company (KTFC) as to the adequacy of fire protection features.
30. The applicant's engineer has demonstrated that the project as currently designed does not exceed a quarter (1/4) acre of additional impervious. However the disturbance associated with installation of underground electric lines, solar racking systems, concrete pads and access ways will exceed one acre, thereby triggering requirements for stormwater management. Supporting calculations have been provided demonstrating that stormwater management requirements will be satisfied through the change in ground cover from rotational row crops to meadow.
31. We recommend that a Phase I Site Assessment be conducted on the property to identify any potential site contamination prior to removal of the existing farmhouse and accessory structures and commencement of construction.
The applicant stated a Phase I Site Assessment was performed quite a while ago and it has not changed. There were no environmental areas of concern or alarm. There are small areas of oil on the ground from leaking vehicles. There is an underground storage tank that will be removed. The Phase I Site Assessment identified very minor areas of concern. He will provide a copy to the engineer.
32. The geotechnical report prepared by Innovative Engineering Inc. should be referenced by note in the plan set as it contains construction recommendations.
33. The geotechnical report should address the backfill and compaction requirements after demolition and removal of the existing residence and farm buildings to suitable grade for construction of the solar arrays.
34. Applicant's engineer should provide testimony regarding the extent of soils compaction as recommended in the geotechnical report and its impact on the runoff characteristics of the soil.
35. The sign detail on Sheet 17 of the plan set indicates that the sign artwork measures 3 ft x 5 ft, however the sign board is dimensioned as 4ft x 6 ft. Clarification is required.
36. Details of the proposed switchgear and any enclosure should be provided.
37. Equipment requiring liquid coolants should be identified and details for secondary containment provided as appropriate.
38. Any high voltage equipment not contained within a building enclosure should be surrounded by an eight (8) foot high chain link fence with a man gate to isolate the area from the general solar field.

39. Graphic scale on Sheets 7-11, 13 & 14 of the plan set are incorrectly labeled as 1" = 100'. The correct scale is 1" = 50'.
40. Inverters pads are labeled on the plan view as 16' x 45', but scales as 16' x 36'. Clarification is required.
41. Sheet 16, "Construction Staging Area Plan", of the plan set addresses the construction sequence and staging of materials. Based on observations of solar facilities previously constructed in Kingwood Township, the following concerns should be addressed:
 - a. Applicant should provide testimony regarding the anticipated traffic and frequency during construction.
 - b. Applicant's engineer should provide testimony regarding the proposed phasing of the staging area.
 - c. A note should be provided stating that parking off-site and along the roadway is not permitted and that all parking during construction shall be on-site.
 - d. All vehicles accessing the site during construction must have adequate on-site maneuverability at all times so as to prevent backing up of vehicles from or onto the public roadway.
 - e. A note stating that no idling of vehicles on public roads is permitted during construction.
 - f. Hours of construction should be identified and noted on the plans with noise generating activities limited, per ordinance, to the period from 8 am to 6 pm.
 - g. Applicant should address if any temporary security lighting is proposed during construction.
 - h. Construction traffic should be limited to the Route 12 corridor and refrained from local roads.
 - i. Temporary construction signage designating the construction entrance, permitted hours of operation and prohibitions of off-site idling and parking of vehicles should be provided.
 - j. Applicant must provide 48 hours notice to the Township Engineer in advance of commencement of construction activities.
 - k. Demolition of the existing structures should be added to the construction sequence.
 - l. Provisions for de-compacting the staging areas must be addressed upon inactivation of the staging area and prior to installation of solar facilities proposed within the area used for construction staging.
 - m. Applicant to announce to the contractor prior to construction and reinforce during construction the need for compliance with all local laws, including speeding limits and offsite parking prohibitions.
 - n. Any approval granted should include provisions for the applicant's responsibility to repair any damage to public roadways and Rights of Way as a result of construction or construction traffic.
 - o. Improvements for the on-tract half width of Barbertown Point Breeze Road to ordinance standards along the project frontage should be addressed.

The applicant is agreeable to the recommendations of the Board's engineer.

42. Other solar facilities currently under construction within the Township have experienced a significant surplus of shale excavation from the electrical conduit trenching operations. The ordinance requires that no soil is to be exported from the site. Applicant should address the onsite disposal of any surplus soil.

D. Pierce swore in C. Chapman of Syncarpha Alethea.

C. Chapman stated there is an external disconnect. At another facility in Burlington, PSE&G reaches up the pole for the disconnect. It is a process that is worked on with the utilities and then with DCA. D. Pierce stated the external disconnect is a requirement in the ordinance and came out of concern by the fire company and rescue squad. The ordinance requires the switch to be identified with a reflective placard. C. Chapman stated he would comply if it was inside the fence but was concerned with it being outside of the fence.

E. Hill stated the applicant agrees to the remainder of the comments and there is nothing they cannot provide. He stated the applicant will provide adequate training to the fire company on how to shut down the facility. The applicant has submitted a copy of the application to the Hunterdon County Planning Board and has not received any comments from them. They have minor comments from the Hunterdon County Soil Conservation District. The applicant is in the process of updating their soil erosion plan. There were minor comments from the D&R Canal Commission. He stated copies of their letters will be provided to the Board.

In response to a Board members inquiry regarding Comment #41, the applicant's staging plan will install the security fence and gravel access driveway. Once they are installed, there will be a gravel parking area inside the fence for employee parking only. Off of the parking area, the applicant is proposing a trailer and temporary facilities area, which is 60' x 200'. All materials and contractor parking will be inside the fence for Phase 1. Once they get to the area of the staging area for Phase 1 in the construction, there will be a much smaller area outside the fence behind the existing vegetation. There will be a temporary fence during Phase 2. The smaller area will be there no longer than three months. Phase 1 is everything outside of the area of the parking area. The applicant is agreeable that the area can be enlarged, if necessary, to the engineer's satisfaction. The landscaping improvements will be installed after the area has been utilized. The hedgerow will not be removed. There is ample space in the site for a truck to come in and turn around. The whole operation for Phase 1 is inside the fence. There will be no parking or idling of trucks on public roads. There will be no off-site parking. He stated in his client's prior facility, the construction manager did a very good job of only accepting deliveries when they were open. The workers will be reminded of local traffic regulations. The construction traffic will be limited to the Route 12 corridor and kept from local roads. The busiest time for construction is after the foundations are installed. On a project this size, there will be approximately 75-80 individual workers on site. The hours of operation will be in accordance with the ordinance, 7 AM – 7 PM. They are not proposing to work through the night and not proposing installing any lighting. There will be no temporary lighting for security purposes in the staging area. A concern by a Board member was expressed that Barbertown Point Breeze is utilized by the people who live in that area. E. Hill stated if at the pre-construction meeting the engineer determines temporary signage is necessary to provide some additional safety, the applicant would be agreeable.

D. Banisch provided the following review letter:

1. A list of information we have reviewed on this application is appended to this report.
2. This is an application for preliminary and final site plan approval of a major solar photovoltaic energy facility in the BP zoning district. The application is substantially the same as the prior approval granted by the Board on June 9, 2011 with conditions.
 - The applicant should provide testimony explaining changes in the plans since the prior approval.
3. Cox and Koenig's New Jersey Zoning & Land Use Administration it is stated, *"If the statutory protection is of particular concern to the developer, he may, of course, simply file a new application for site plan approval, not characterizing it as an amendment, and obtain an original approval which will carry with it the full statutory period of protection. While the amendment of the approved plan would serve to alter the*

earlier approval, the submission of a new plan would not". Considering the fact that the applicant is filing a new application we will address the full report as we would approach any application.

4. The subject parcel is 45.952 acres in size. The property is an existing farm consisting of a two story dwelling, five sheds, four storage trailers, collapsed barn and the concrete pad of an old building.
5. The existing residential use, on this lot, will not be retained along with its associated structures. This conforms with ordinance requirements.
6. There are two (2) large wetland complexes on the parcel: one of substantial area lying in the southeast corner of the parcel; and a second smaller wetland complex lying due west of the existing farmstead improvements. There are also identified two minor wetland areas. One extends from the west approximately at the level of the existing structure on the Existing Conditions Plat. The other is within the proposed roadside buffer approximately 160±' of the existing driveway.
7. The proposed major solar facility is to consist of the following:
 - a. Removal or abandonment of all existing improvements, including removal of the existing two-story dwelling and frame sheds, abandonment of two wells and an existing septic system.
 - b. Three (3) fields of solar panels of varying sizes with the following setbacks:
 - i. Front yard – 100' to the arrays (as per plan and the schedule on Sheet 1)
 - ii. Side yard –68.3' to the arrays (as per plan; the schedule on Sheet 1).
 - iii. Rear yard -87.4' to the arrays (as per plan; the schedule on Sheet 1).
 - c. 8' high chain link perimeter fence to be located along the property setback lines encircling the solar panel fields. Approximately 56 security cameras are to installed along the top of the fence around the perimeter of the site;
 - d. 18' wide access driveway onto Barbertown – Point Breeze Road near Route 12; and a 16' emergency access gate at the southwest rear of the parcel;
 - e. Proposed interconnection to existing utility pole of unspecified height that is located outside the front gate;
 - f. Knox box access, pole mounted light on 20' aluminum pole with the light at 12' and a solar panel installed above the light;
 - g. An 11' x 27' concrete pad for "switchgear pad";
 - h. Six (6) 11' x 36.2' inverter pads, each containing four (4) inverters;
 - i. Landscaping along Barbertown-Point Breeze Road, Route 12 and 800' of the common property line with Lot 1.02 to the east;
 - j. Vegetative cover –Seeding notes on Sheet 15 call for "permanent seeding" . . . "to permanently stabilize the soil, assuring conservation of soil and water and to enhance the environment."
8. §132-35B. (9) requires major solar or photovoltaic energy facilities or structures to comply with design standards found at found at §132-60 of the ordinance.
9. §132-60A(5) requires that all facilities and structures shall not be visible from roadways and from adjoining residential uses at a height 30' above ground level. Landscaping and berm shall be provided. Photo simulations should be provided demonstrating the adequacy of the proposed screening.

The plans (Sheet 9) show a proposed 50' wide landscaped buffer that extends along the Barbertown-Point Breeze Road and Route 12 frontage and along the easterly side property line for a distance of 800'. Proposed landscaping includes:

- 90 White Spruce,

- 88 Eastern Red Cedars,
- 97 American Holly including one male at locations with 2 or more plantings,
- 20 Sour Gum,
- 14 Sugar Maple and
- 105 Inkberry Holly including one male at locations with 2 or more plantings.

The evergreens will be planted in a staggered double row approximately 15’ on center, 8’ to 10’ in height at the time of planting and distributed within an approximately 50’ wide area lying between the front lot line and the proposed 8’ chain link.

- We recommend adding Norway Spruce and White Pine trees as substitutions for at least one-half of the Eastern Red Cedar Trees proposed. These varieties of evergreen trees will result in more effective screening and are not as susceptible to damage from the deer browse.

The applicant is willing to work with the planner on the type of species.

- No berm is shown on the plans – testimony should be provided.

10. Testimony should be provided to address the visibility of the facility from dwelling located off site across Barbertown-Point Breeze Road. Taller landscaping may be needed to address this visibility requirement (i.e. 12’ to 16’ in height in key locations).

The applicant stated they would be willing to evaluate the visibility from the dwelling across the street of the facility.

11. The Maintenance Plan and Land Surface Management Plan identifies procedures for maintaining a meadow grass land cover throughout the facility and landscape planting maintenance. The Plan generally complies with ordinance requirements and includes the following statement:

12. “Plantings will be replaced as necessary or as directed by the municipality.” This should be included as condition of approval in any approval that the Board may grant.

13. The Maintenance Plan should be revised to state that “a continuous ground cover of meadow grass shall be established and maintained through the facility. Sufficient quantities of supplemental seeding shall be provided seasonally after initial to establish a continuous ground cover of meadow grass where bare spots are evident and/or where meadow grass cover has not been established.”

The applicant agrees to continue maintenance to address bare spots with the meadow grass. The applicant is willing to revise the maintenance plan.

14. Pursuant to §132-60A(7)(a), and Engineer Decker’s comment, we believe that reasonable substitutions of native tree plantings may be advantageous in the establishment of an effective visual screen planting along the road frontage. These are indicated in Comment #10 above (Norway Spruce & White Pine trees in lieu of Eastern Red Cedar trees).

15. The Board should require a condition that landscaped plantings will be subject to inspection to confirm that visibility objectives are achieved. This inspection may result in the need for planting additional evergreen trees, subject to review and approval by the Board Planner.

The applicant will agree with plantings supplemented in a linear planting and not more than 35' on center.

16. It appears that the proposed chain link fence is galvanized steel, which will result in reflecting sunlight glare. The Board should determine whether this should be replaced with either vinyl coated black or green chain link fence fabric, posts and gates.

The applicant stated the rails will be installed around the entire perimeter. The applicant is agreeable to have 3" along the perimeter with hand shoveling along the back to obtain a 4" height. The main purpose of the fencing is to keep children out of the facility.

17. Testimony should be provided regarding potentially historic significant structures on site.
18. All restrictions and prohibitions in the Township's solar or photovoltaic energy facilities and structures should be made conditions of approval for any approval that the Board may grant.
19. Any approval by the Board should be conditioned upon approval by any other agency with jurisdiction.

E. Hill stated if there are excavation piles, they will be utilized on site. Any excess shale shall be used to stabilize the access ways.

R. Dodds opened the hearing to the public.

J. Drake was sworn in by D. Pierce.

R. Hanley, Jr. was sworn in by D. Pierce.

R. Hanley stated he is the captain of the Kingwood Township Fire Department. J. Drake stated he is the deputy chief of the Kingwood Township Fire Department.

R. Hanley stated, after speaking with E. Hill, the applicant has agreed to install two additional gates, one on the west side and one on the east side. There are two gates at the bottom. It will provide access and a means of egress on all sides of the perimeter. In regard to the pathways to get to the inverters, the fire company finds the proposed plan to be adequate.

J. Drake stated the Knox box systems will be installed at the front and back entrances. He is requesting the locks for all the gates be accessible from both sides. E. Hill agreed.

R. Hanley inquired if the inverter pads were flat. E. Hill responded it is a concrete slab at grade with a structure on top of it. The electrical components are within the building. R. Hanley requested the concrete slab be constructed with a 6" lip for containment. E. Hill stated there were no liquids in the inverters. E. Hill stated some transformers can be liquid cooled. After some discussion, the applicant agreed to the installation of a 6" containment curb.

There were no other comments from the public.

P. Lubitz stated the Township recently amended their noise ordinance. The ordinance is posted on the Township's website. He stated per the current ordinance, construction cannot begin before 9 AM on weekends and holidays.

S. McNicol inquired in regard to #17 about the historical significance of the structures on the property. She stated the home was built in 1780. She inquired how the Board would like to address the issue. E. Hill responded the applicant went through a review process for the wetlands. The applicant researched the federal and state historic registers and this property is not identified to have historical significance. If it had been, the applicant would have to perform additional studies. D. Banisch stated the applicant did their due diligence in consulting the state's historical records but some structures are not nominated. D. Banisch suggested the applicant should contact an archeologist who is familiar with the removal of historic structures. R. Dodds stated the Board is not suggesting that the building not be torn down just that it is properly documented. E. Hill inquired if the Township has a historical society. E. Niemann stated yes and that they would contact him. E. Hill stated the applicant was agreeable.

S. McNicol inquired if the application meets the open land requirements of the ordinance. D. Pierce responded the open land requirements are not applicable to this application because of the BP zone.

E. Hill stated the wetlands are proposed to be in a conservation easement that is deed restricted but not dedicated to the Township. He stated the applicant will be the owner of the property.

It was moved by P. Lubitz, seconded by J. Strasser and carried to grant preliminary approval for the above application with the following conditions:

1. Receipt and submission of approval from the Hunterdon County Planning Board.
2. Receipt and submission of approval from the Hunterdon County Soil Conservation District.
3. Receipt and submission of approval from the Delaware and Raritan canal Commission.
4. Compliance with the sign requirements specified by the Chief of the Kingwood Township Fire Company.
5. Submission of the final design dimensions of the switch gear equipment.
6. Continued maintenance of the landscape buffer area in accordance with the landscape maintenance plan.
7. Immediate removal and off-site disposal of all woody material (brush and trees) removed for purposes of this project.
8. Satisfaction of items # 13, 14, 16, 17 and 19 of the Memorandum of David Banisch dated June 14, 2012.
9. This approval is subject to a post-construction inspection of the landscaping by the Board's planner and any modifications to the quantity and location of landscaping required, to be consistent with the density and diversity of the proposed plantings along Route 12, where deemed reasonably necessary by the Board planner to adequately screen the facility, to consist of linear plantings at a frequency of not greater than 35 feet on center.
10. The facility shall conform to the National Electrical Code and the IBE 2009 Code.
11. The submission and approval by the Fire Company and Rescue Squad of an Emergency Management Plan shall be a condition of the issuance of a Certificate of Occupancy for the facility and required before it may commence operations.
12. Satisfaction of items # 1, 3, 7, 11, 12, 15-24, 28, 29, 31, 32, 33, and 35-42 set forth in the review letter prepared by Thomas Decker, P.E. and dated May 24, 2012.
13. Removal of all debris piles from the property.

14. Submission of documentation verifying the proper abandonment of the existing septic system and potable well.
15. Submission of plans with the fence detail revised to show:
 - a. that the fence will be black clad vinyl throughout the entire property; and
 - b. that the height of the bottom bar of the fence along the rear of the property will be 3 inches above grade.
16. Submission of plans with the sign detail revised to delete the word "Farm" and replace it with the word "Facility" and to also add the phrase "Kingwood Township"
17. The emergency information sign shall be revised and updated within 14 days of any change in the identity of the owner or operator of the facility.
18. The applicant shall provide secondary containment for fluids that could be leaked from the transformer, with the design and capacity of such secondary containment to be approved by the Board's engineer and planner in conformance with applicable codes.
19. Hours of construction shall be limited to 7am to 7pm and noise generating activities shall comply with the noise ordinance.
20. The construction of the proposed facility shall occur in the following phasing sequence:
 - a. Signs shall be installed first;
 - b. After installation of the signs, the interior road shall be constructed;
 - c. After the interior road is completed, the applicant shall install the perimeter security fencing;
 - d. Once the security fencing is finished, the applicant shall install the landscaping unless construction is commenced after the growing season in which event the applicant shall complete the installation of the landscaping during the next growing season immediately following the start of construction. Landscaping for the staging area shall be installed following the removal of the staging area;
 - e. The Applicant shall complete the installation of the landscaping before the issuance of a Certificate of Occupancy. Alternatively, the Applicant shall post a performance bond to cover the installation of the landscaping, in an amount approved by the Township engineer prior to securing the issuance of a Certificate of Occupancy; and
 - f. Once the signs, road and security fencing is complete, and subject to item d above, the applicant may then begin the installation of the solar panel racking system.
21. Submission and approval by the Board planner of a Landscape Plan revised to address items # 10 and 11 of the Memorandum of David Banisch dated June 14, 2012.
22. Deliveries of equipment and materials for the construction of the proposed facility shall access the property from Route 12.
23. The staging area shall be subject to increase in size as may be directed by the Township engineer in the field.
24. The applicant shall comply with the requirements of the Kingwood Township Conservation Easement ordinance, including:
 - a. Recordation of a Conservation Easement or deed restriction that shall be subject to review and approval by the Board's professionals;
 - b. Installation of Conservation Easement markers; and
 - c. Submission of a baseline documentation report before the issuance of a building permit;
25. All locks on gates to the property shall be accessible from both sides.
26. The applicant shall install gates on the east and west sides of the property to provide access to emergency personnel.
27. The paths to the inverters shall be reinforced with a permeable mesh in lieu of the use of gravel to construct the paths.

28. The Applicant shall be responsible for the repair of damage occurring during construction to the area of the public right of way and public roadways caused by the applicant's employees, agents, contractors, vendors and/or invitees.
29. The project shall be subject to the review and approval by the Kingwood Volunteer Fire Company and Rescue Squad.
30. Submission of a 2 year performance guarantee for the landscape buffer plantings and vegetative cover.
31. The Applicant must attend a pre-construction conference with the Township engineer.
32. The Applicant must provide 48 hours notice to Township engineer in advance of commencement of construction activities.
33. No maintenance shall be conducted after dark except in the case of emergency.
34. The Applicant shall provide site specific training for the Kingwood Township Volunteer Fire Company and Rescue Squad before the facility becomes operational.
35. The Applicant shall submit one copy of all revised plans in electronic format.
36. The Applicant shall provide additional interior fencing, 8' high, with a man gate around the switch gear and transformer.
37. No fill material shall be used on site unless approved in advance by the Township engineer.
38. All parking, including during construction, shall be on site; no parking or idling shall be permitted on or along the public road.
39. All foundations are to be removed in accordance with the recommendations of the geotechnical soils report to the depth necessary to allow future farming of the site.
40. No grading shall be permitted in areas of prime soils and soils of statewide significance except for the purpose of installing roads and equipment pads.
41. No soil shall be removed from the Property.
42. Submission of a cost estimate for landscaping subject to review and approval by the Board's professionals.
43. The Applicant shall remove any staging area fence upon completion of the perimeter fencing.
44. There shall be no security lighting allowed in the staging area.
45. All components of the facility must be designed to withstand winds with a 90 mph ground level wind velocity.
46. Subject to the de-compaction of the staging and other areas as deemed necessary by the Board engineer.
47. All shale excavated from the Property shall be used to enhance the internal road or otherwise used in accordance with the direction of the Township engineer and planner.
48. The Maintenance Plan shall be revised to provide that the Applicant shall promptly remove any and all trees falling on adjacent properties.
49. The Maintenance Plan shall be revised to provide that no pruning or trimming of landscape plantings for shading that would open up visibility of the solar arrays will be allowed.
50. A landscape architect or certified arborist shall be on site to supervise the installation of the landscaping.
51. The Applicant shall have the existing dwelling photo documented by an historian or architect prior to demolition and submit that photo documentation to the Township Historical Society.
52. The applicant shall install temporary traffic control signs that designate the construction entrance, the prohibition on idling and warning of the approach to the construction entrance, all subject to approval by the Township engineer as to location and content.
53. The Applicant shall make a preconstruction announcement to the contractor regarding the need for compliance with local laws, including speed limits, and the parking and idling restrictions contained in this resolution.

54. The Applicant shall provide a certification from all contractors and subcontractors that no employee, if they were residing on the Property, would be required to provide a Megan's law certification.
55. The Applicant shall provide Board professionals with print copies of all revised plans that are submitted in electronic form.
56. The location of all emergency shut off switches shall be approved by the Board planner, Board engineer and first responders.
57. The Applicant shall submit a list of materials of construction of the solar panels.
58. The Applicant shall comply with the Decommissioning Plan.
59. If the power output of the facility exceeds 8.3 MW, or if there is any change in equipment utilized at the facility, including, but not limited to the solar panels, inverters and transformer, then the applicant shall notify the Planning Board, the governing body, the Fire Company and the Rescue Squad and shall comply with any and all additional safety requirements deemed necessary by the Fire Company and/ or Rescue Squad.
60. The Township of Kingwood is dedicated to providing affordable housing and has established an affordable housing program with supporting land use ordinances and a housing trust fund based on the Fair Housing Act of 1998.
 In the event that the calculation to be performed under the growth share ordinance determines that there is no growth share obligation associated with the proposed development, then the development fee ordinance shall be applicable. The development fee ordinance requires a developer, pursuant to 132-13 of the Kingwood Township Code, to pay a development fee to the Kingwood Township Affordable Housing Trust Fund.
 The applicant shall pay fifty percent (50%) of the estimated developer's fee, if any, to the Kingwood Township prior to the issuance of building permits based on the Tax Assessor's estimated assessed value and his determination of the appropriate developer's fee. Building plans and as-built building plans for each development subject to payment of the developer's fee must be provided to the Tax Assessor and the remaining portion of the developer's fee shall be paid at the time of issuance of a Certificate of Occupancy for the new development. This paragraph does not constitute any determination by the Board as to whether the applicant is required to pay a developer's fee.
61. Neither the Board nor its employees or professionals will perform any service in furtherance of this approval if there is a deficiency in any escrow or inspection fee account. The applicant shall be under a continuing duty to maintain a positive balance in all accounts until all conditions have been satisfied and all charges have been paid. This memorializing resolution shall not be released to the applicant unless all outstanding escrow fees have been paid and the applicant's escrow account contains sufficient funds to cover anticipated unbilled expenses.
62. Approval of this application by the Planning Board shall not and is not to be considered as an approval of any other requirements or approvals of permits as may be necessary to allow construction.
63. The within approval, and the use of all property subject to the within approval, are conditioned upon and made subject to any and all laws, ordinances, requirements, and/or regulations of and/or by any and all Municipal, County, State and/or Federal governments and their agencies and/or departments having jurisdiction over any aspect of the property and/or use of the property. The within approval and the use of all property subject to the within approval are also conditioned upon and made subject to any and all approvals by and/or required by any and all municipal, county, State and/or Federal governments and their agencies and/or department shaving jurisdiction over any aspect of the property and/or the use of the property. In the event of any inconsistency between the terms and/or condition of the within approval and any

- approvals(s) required by the above, the terms and conditions of the within approval shall prevail unless and until changed by the Board upon property application.
64. The Kingwood Township Planning Board reserves the right to revoke and withdraw any approval hereby granted in the event that there is any deviation from or alterations of the plan hereby approved, unless prior written approval for any such deviation or alteration has been obtained from the Planning Board. Minor deviations and field changes may be authorized in writing by the Township Engineer.
 65. All improvements shall conform to building standards and other regulations as set forth in Federal, State, County and Municipal Statutes, Regulations, Codes and Ordinances, at the time of installation of the said improvement.
 66. The acceptance by the applicant of this approval and reliance thereon by the applicant for the purpose of commencement of construction of improvements within the project in accordance with the approval, shall operate as an acknowledgment and agreement by the application, its successors and assigns, that it accepts the official action herewith memorialized as being subject to the terms and conditions as contained herein, and agrees to fully comply and be bound thereby.

All members present voted **AYE** on **ROLL CALL VOTE**.

D. Floyd resumed his seat on the Board.

Block 37, Lots 3.05 and 3.06 – Cacciabaudo – Federal Twist Road – Extension of Time to File

It was moved by E. Niemann, seconded by S. McNicol and carried to grant a 45-day extension of time to file the deed for the above application. All members present voted **AYE** on **ROLL CALL VOTE**.

It was moved by S. McNicol, seconded by M. Syrnick and carried to adopt Resolution No. 2012- 04 - Block 37, Lots 3.05 and 3.06 – Cacciabaudo – Federal Twist Road – Extension of Time to File. All members present voted **AYE** on **ROLL CALL VOTE**.

Land Use Element – Discussion

D. Banisch reviewed the draft of the Land Use Element. He stated the Land Use Element reiterates some of the items of the Re-Examination Report. It is the policy orientation for the zoning ordinances of the Township. The governing body makes the final decision for the zoning in the Township. He reviewed the references he utilized in determining the minimum lot size requirements in the proposed AR-3 zone. The Board discussed the factors used in determining the increased minimum lot size in the AR-3 zone, setbacks on Route 12, emergency access, making the Element more readable and the time frame of the adoption of the Land Use Element. D. Banisch was requested to provide the Board with a revised draft by June 30th.

T. Decker and D. Banisch left the meeting at 10:18 PM.

SEIA – Proposed Ordinance

S. McNicol stated the Environmental Commission worked very hard of the ordinance. She reviewed the comments made by the Environmental Commission. R. Dodds suggested S. McNicol and D. Pierce review the suggestions and present a draft to the Board at the July meeting.

Minutes

It was moved by S. McNicol, seconded by D. Floyd and carried to adopt the minutes of May 10, 2012 and place on file. All members present voted **AYE** on **ROLL CALL VOTE**, except R. Dodds and J. Strasser, who **ABSTAINED**.

Proposed Ordinance 17-12-2012

It was moved by S. McNicol, seconded by M. Synchronick and carried to recommend adoption of proposed ordinance No. 17-12-2012 to the Township Committee. All members present voted **AYE** on **ROLL CALL VOTE**.

Budget Appropriation Update

R. Dodds reviewed briefly.

APPLICATION STATUS

CORRESPONDENCE

R. Dodds reviewed as per the agenda.

PRIVILEGE OF THE FLOOR

ADJOURNMENT

It was moved by P. Lubitz, seconded by E. Niemann and carried to adjourn the meeting at 10:31 PM. All members present voted **AYE**.

Respectfully submitted,

Diane Laudenschick, Secretary