

**POCONO TOWNSHIP ZONING ORDINANCE, ZONING MAP, SALDO
AMENDMENTS**

MEETING #13 AGENDA

April 22, 2024 - 6:00pm

Pocono Township Municipal Building

- 1. Review Draft #3 of Natural Resource Protection Standards
(new revisions are highlighted yellow)**
- 2. Review Draft #2 of Principal Solar Energy Facilities Overlay District Map
and Text (new revisions are highlighted yellow)**
- 3. Review Draft #1 of Principal Wind Energy Facilities Overlay District**
- 4. Discuss Location(s) for Principal Wind Energy Facilities Overlay District**
- 5. Review Draft #1 of Accessory Alternative Energy Systems**
- 6. Confirm Next Meeting Date – May 28, 2024**

New revisions are highlighted yellow

ARTICLE XI

Natural Resource Protection Standards

§ 470-147. Purpose.

The following natural resource protection standards are established to promote public health, safety, and welfare by minimizing adverse impacts to the environmental and the plants, animals, and humans that live within it. These standards are intended to meet the following specific purposes:

- A. Promote and implement the PA Municipalities Planning Code providing for the protection and preservation of natural resources through Zoning Ordinances.
- B. Promote and implement the goals and policies of the Township Comprehensive Plan related to protection of open space and natural resources.
- C. Identify and protect environmentally sensitive resources including floodplains, steep slopes, woodlands, water bodies (such as ponds and lakes), watercourses (such as streams and rivers), riparian buffers, wetlands, wetland buffers, and habitats of rare, threatened, and endangered species.
- D. Protect the Township's exceptional value and high quality watersheds and water resources, including potable water supply and quality, by protecting the environmentally sensitive resources listed above.
- E. Reduce adverse financial impacts to the community that may result from degradation of natural resources.
- F. Capitalize on financial benefits derived from the natural infrastructure functions that natural resources provide, such as stormwater management, filtration of contaminants, and flood control.
- G. Preserve the natural and scenic resources and landscapes that are integral to the Township's tourism economy and its rural character.

§ 470-148. General provisions.

- A. It shall be a violation of this Chapter to regrade, fill, pipe, divert, channel, build upon, or otherwise alter or disturb a natural resource protected by this Article prior to the submission, review, and approval by the Township of applications for zoning or building permits; subdivision or land development plans; conditional use or special exception approvals; zoning variances; timber harvesting plans; or any other applicable permit or approval required by the Township that would involve disturbance of natural resources protected in this Article.
- B. In the event that two or more natural resources identified in this Article overlap, the resource with the most restrictive standard (the least amount of permitted disturbance, or the greatest buffer distance) shall apply to the area of overlap.
- C. Where disturbance of a natural resource is permitted, it shall not take place until it has been determined by the Township Engineer or another professional designated by the Township that such disturbance is consistent with the provisions of this Article and other applicable Township ordinance provisions or federal or state

regulations.

- D. Except as preempted by specific acts, in the event that the provisions of this Article and the provisions of other applicable Township standards or federal or state regulations are in conflict, the more restrictive provisions shall apply.
- E. Restrictions to the disturbance of resources shall apply before, during, and after construction on a site.
- F. Plan information required by this Article shall be verified as correct by the Township Engineer or other qualified professional as determined by the Township.

§ 470-149. Floodplain protection standards.

- A. Areas identified as floodplains shall not be altered, regraded, filled, or built upon except in conformance with Chapter 205 of the Pocono Township Code.

§ 470-150. Steep slopes.

- A. The following standards shall apply to steep slopes:

- (1) Categories and measurement of slopes.

- (a) For the purposes of this chapter, steep slopes are divided into two categories:

- [1] Moderately steep slopes, as defined in Article II.

- [2] Very steep slopes, as defined in Article II.

- (b) Slopes shall be measured as the change in elevation over the horizontal distance between consecutive contour lines and expressed as a percent. For the purpose of application of these regulations, slope shall be measured over three or more two-foot contour intervals (six cumulative vertical feet of slope). All slope measurements shall be determined by a topographic survey signed and sealed by a registered surveyor or engineer licensed to practice in the Commonwealth of Pennsylvania.

- (2) Protection standards.

- (a) Limits of Disturbance. Steep slope areas, ~~whether natural or~~ excluding man-made slopes, shall be preserved in their original state whenever possible. Where construction of roads, buildings, driveways, or infrastructure cannot be avoided, disturbance shall be kept to the minimum necessary. In no case shall disturbance exceed the following permitted limits:

- [1] Moderately steep slopes. No more than 25% of moderately steep slopes shall be regraded, removed, cleared, built upon, or otherwise altered or disturbed.

- [2] Very steep slopes. No more than 10% of very steep slopes shall be regraded, removed, cleared, built upon, or otherwise altered or disturbed. In addition, the disturbance permitted on very steep slopes shall be limited to the following activities:

- [a] Grading for the minimum portion of a road or driveway necessary to access the principal use of the property and sewer, water, and other utility lines, when it can be demonstrated that no other routing is feasible.
 - [b] Timber harvesting, when conducted in compliance with the required timber harvesting plan. Clear-cutting or grubbing of trees is prohibited on very steep slopes.
- (b) Construction on Steep Slopes. Each building or structure shall be constructed in such a manner as to provide the least necessary alteration of the existing grade, vegetation, and existing soils. Excessive cut-and-fill shall be avoided.
 - (c) Roads. New roads and improvements to existing roads should be designed within the existing contours of the land to the extent possible and strive for compatibility with the character of rural roads
 - (d) Cut-and-Fill Slopes. Finished slopes of permitted cut-and-fill areas shall not exceed 33% slope unless the applicant can demonstrate to the satisfaction of the Township Engineer the method by which steeper slopes can be adequately stabilized and maintained.
 - (e) Steep Slope Disturbance. Any disturbed area of very steep slopes, or any cut-and fill-resulting in slopes of greater than 25%, shall be protected with an erosion control blanket. All stockpiles of earth intended to be stored for more than 21 days shall be seeded or otherwise stabilized to the satisfaction of the Township Engineer or the Monroe County Conservation District.
 - (f) Erosion and Sedimentation Control. Any disturbance of land shall be in compliance with Pennsylvania Department of Environmental Protection, Title 25, Chapter 102. In addition, any land disturbance shall conform to the following Township Ordinances: Grading Erosion and Sedimentation Control, Chapter 220, as amended; Stormwater Management, Chapter 365, as amended; and, Subdivision and Land Development, Chapter 390, as amended. An erosion and sedimentation control plan and soil stabilization plan shall be submitted consistent with the requirements of the Pocono Township ordinances to demonstrate how soil will be protected from erosion during construction and how soil will be stabilized upon the completion of construction.
 - (g) Submission of Plans. Where the following information has not been previously submitted as part of a subdivision or land development plan application, such information shall be submitted to the Township with a building or zoning permit, or a conditional use, special exception, or other application, when applicable:
 - [1] Delineation of areas of moderately steep slope and very steep slope which are on the site.
 - [2] The erosion and sedimentation control and soil stabilization plans described in § 479-150A(2)(f), above.

- [3] A grading plan that shall identify the existing contours of the site, proposed finished grades, and the proposed location of all buildings and structures.
- [4] For slopes of greater than 25%, an architectural plan, including materials and type of foundation to be used to overcome structural problems associated with slope conditions.

§ 470-151. Watercourses, lakes, ponds and wetlands.

A. Watercourses.

- (1) Watercourses shall be preserved in their natural state. The following special regulations shall apply to watercourses:
 - (a) No disturbance of a watercourse shall be permitted except for activities waived or permitted under Pennsylvania DEP regulations.
 - (b) Any project impacting a watercourse that requires an individual permit from the US Army Corps of Engineers or a joint permit from the US Army Corps of Engineers and the Pennsylvania Department of Environmental Protection shall require a special exception approval in accordance with this chapter.

B. Riparian buffers.

- (1) The riparian buffer shall be designated as:
 - (a) An area that begins at each edge of any watercourse and extends a minimum of 150 feet landward on each side of the watercourse. The width of the buffer shall be measured horizontally on a line perpendicular to the nearest edge of the watercourse at bankfull flow, as reviewed and approved by the Township engineer.
- (2) The area within the riparian buffer shall not be regraded, filled, cleared, built upon, or otherwise altered or disturbed, with the exception of the following:
 - (a) Earth disturbance of less than 5,000 square feet or 1,000 square feet of impervious cover on an existing lot of record as of the date of enactment of this ordinance, provided it is not related to a subdivision or land development application.
 - (b) Regulated activities permitted by the Commonwealth, Army Corps of Engineers, or other Federal agency (such as a permitted stream or wetland crossing);
 - (c) Provision for unpaved trail and trail access;
 - (d) Provision for ~~fishing~~ access to a watercourse, including fishing access, boat launches, and crossings for agricultural and restoration equipment, not to exceed 20 feet in width, limited to one access per tract or two miles of stream frontage.
 - (e) Selective removal of hazardous or invasive vegetative species;

- (f) Vegetation management in accordance with an approved landscape plan or open space management plan;
 - (g) A soil conservation project approved by the Monroe County Conservation District; or,
 - (h) Removal of hazardous material or septic system, junk material, or a diseased tree.
- (3) The following activities and practices are expressly prohibited in riparian buffer areas:
- (a) Removal or disturbance of vegetation except as permitted in § 470-151B(2) above.
 - (b) Storage or discharge of any hazardous or noxious materials, except those used during emergencies for the treatment and/or maintenance of any public sewer and public water treatment facilities.
 - (c) Use of fertilizers, pesticides, herbicides, and/or other chemicals, except:
 - [1] Where permitted by a valid conservation plan, forest stewardship plan, or approved planting and maintenance plan.
 - [2] For selective herbicide application by a qualified professional to control noxious weeds and invasive species of plants in riparian buffers.
 - (d) Storage or operation of motorized vehicles, except for maintenance of emergency use approved by the Township and except as permitted on roads, paths, or trails designated for use by motorized vehicles.
- (4) If currently wooded, the riparian buffer shall be maintained as woodlands. In places where the riparian buffer is not wooded, and until such buffers have become wooded, the buffer shall be maintained as a filter strip of dense grass and forbs no less than one (1) foot high or other methods to provide sediment filtering, and nutrient uptake, as well as to convert concentrated flow to uniform, shallow sheet flow.
- (5) When a subdivision or land development is proposed where there is no existing vegetated or wooded buffer, a 150 foot vegetated riparian buffer shall be required in accordance with the following guidelines:
- (a) Forest or other suitable vegetation shall be promoted through natural succession. Selective planting shall also be incorporated on sites devoid of vegetation to stimulate native species and discourage invasive species.
 - (b) Plant selection, planting, and on-going maintenance shall be planned by a registered landscape architect under the guidance of a licensed ecologist, the USDA, the Monroe County Conservation District, the Pennsylvania Department of Environmental Protection, or the Pennsylvania Department of Conservation and Natural Resources.
- (6) All riparian buffers created by a new subdivision shall be maintained through a

declaration of protective covenant, which is required to be submitted for approval by the Township. The covenant shall be recorded in the land records and shall run with the land and continue in perpetuity. Management and maintenance requirement information shall be included in the covenant.

C. Wetlands, lakes and ponds.

- (1) The following wetland protection standards shall also apply to lakes and ponds:
 - (a) Wetland disturbance. Wetlands shall not be regraded, filled, piped, diverted, channeled, built upon, or otherwise altered or disturbed except where state or federal permits have been obtained.
 - (b) Coordination with state and federal agencies. Any applicant proposing a use, activity, or improvement which would entail the regrading or placement of fill in wetlands shall provide the Township with proof that the Pennsylvania Department of Environmental Protection (Bureau of Dams and Waterway Safety and Bureau of Water Quality Management) and the U.S. Army Corps of Engineers have been contacted to determine the applicability of state and federal wetland regulations. Any applicant who is contacted by the Pennsylvania Department of Environmental Protection or the U.S. Army Corps of Engineers shall provide to the Township a copy of such correspondence within five (5) working days of receipt.
 - (c) Wetlands delineation. The applicant shall provide to the Township a wetlands delineation report (or a letter verifying that no wetlands are presented based on a field view) that that meets the following requirements:
 - [1] The report shall be conducted by a qualified wetland biologist, soil scientist, or an environmental professional with demonstrated qualifications, who shall certify that the methods used adhere to the currently accepted technical concepts, including identification and analysis of wetland vegetation, hydric soils, and hydrologic indicators. Methods used in the report shall be acceptable to the municipal engineer or other qualified consultant hired by the Township.
 - [2] The report shall include a determination of whether wetlands are present on the site and a full delineation, area measurement (in square feet), and description of any wetlands determined to be present. If there is a question as to the accuracy of the wetland delineation report, the Township may hire a qualified consultant to review the delineation and recommend revisions at the applicant's expense.
 - [3] If no wetlands are found on the site, a note shall be added to the preliminary and final plans stating that "This site has been examined by (name and address with a statement of submitted qualifications), and no wetlands as defined by the U.S. Army Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, January 1987, were found to exist."

D. Wetland, lake, and pond buffers.

- (1) The following buffer standards shall also apply to wetlands lakes and ponds:
 - (a) The buffer shall extend a minimum of 150 feet landwards from the outer limits of the wetland boundary, or lake or pond shoreline, as applicable.
 - (b) There shall be no earth disturbance within the wetland, lake, or pond buffer with the exception of the following:
 - [1] Earth disturbance of less than 5,000 square feet or 1,000 square feet of impervious cover on an existing lot of record as of the date of enactment of this ordinance, provided it is not related to a subdivision or land development application.
 - [2] Regulated activities permitted by the Commonwealth, Army Corps of Engineers, or other Federal agency (such as a permitted stream or wetland crossing);
 - [3] Provision for unpaved trail and trail access;
 - [4] Provision for access to lake, pond, or wetland, not to exceed 20 feet in width, limited to one access per tract.
 - [5] Selective removal of hazardous or invasive alien vegetative species;
 - [6] Vegetation management in accordance with an approved landscape plan or open space management plan;
 - [7] A soil conservation project approved by the Monroe County Conservation District; or,
 - [8] Removal of hazardous material or septic system, junk material, or a diseased tree.
 - (c) All Department of Environmental Protection regulations under Chapter 105 concerning activities in wetlands margins shall be met.

E. Setbacks for potential water pollution hazards.

- (1) The following land uses and/or activities are designated as potential water pollution hazards and shall be set back a minimum of 300 feet from any watercourse, wetland, lake, or pond. Where more restrictive, the requirements of the Pocono Township Floodplain ordinance shall apply.
 - (a) Above or below ground storage of hazardous substances
 - (b) Above or below ground petroleum storage facilities
 - (c) Drainfields from on-site sewage disposal and treatment systems
 - (d) Solid waste landfills or junkyards
 - (e) Confined animal feedlot operations
 - (f) Subsurface discharges from a wastewater treatment plant

§ 470-152. Woodlands, specimen vegetation, and heritage trees. Move to SALDO**A. Specimen vegetation and heritage trees.**

- (1) Specimen vegetation and heritage trees shall not be removed from any lot or tract except where the landowner demonstrates to the satisfaction of the Board of Commissioners that such removal is essential to eliminate a hazardous condition(s). In consideration of any need for removal, the Township may engage the services of an arborist, reasonable costs therefore to be borne by the landowner. Where permitted, removal of specimen vegetation and heritage trees shall be minimized.
 - (a) To the minimum extent necessary to enable retention of specimen vegetation and heritage trees while providing for lawful use, modification to otherwise applicable area and bulk requirements may be approved by the Board of Commissioners as part of any applicable subdivision or land development application, or by the Zoning Officer as part of any applicable building permit.
- (2) Where any applicant for building, zoning, subdivision or land development approval establishes conservation restrictions acceptable to the Township which shall result in the conservation of specimen trees or heritage trees, all such trees to be retained shall be credited toward any tree replacement required under § § 470-152C below, at the ratio of four trees credited for each specimen or heritage tree retained.

B. Woodlands.

- (1) Unless undertaken as an approved timber harvesting operation conducted in compliance with the requirements of the Pocono Township Timber Harvesting ordinance the following woodland disturbance limitations shall apply.
 - (a) Critical woodlands: 5%.
 - (b) Non-critical woodlands on residential tracts: 35%.
 - (c) Non-critical woodlands on non-residential tracts: 50%.
 - (d) Disturbance limitations shall be measured based on the extent of the woodland at the time of first submission of applicable application(s) after the adoption of this section, and shall be indicated on applicable plan(s). The extent of any area of woodland disturbance shall be measured to include the entire area within the drip line of any tree where any part of the area within the drip line of said tree is subject to woodland disturbance. Any disturbance limitation shall run with the land. Subsequent applications shall be subject to the initial determination of disturbance limitations, regardless of intervening disturbance which may have occurred. If, at any time within three years prior to an applicable application, there had existed a greater extent of woodland, such greater area shall be utilized to calculate the extent of woodland disturbance and the limitations set forth herein.
- (2) In determining where necessary woodland disturbance shall occur, the following factors shall be considered by the applicant and the Township:
 - (a) The location(s) and benefit(s) of conservation of healthy mature woodland stands.

- (b) The impacts of separating, dividing, or encroaching on wildlife travel corridors or extensive habitat areas, especially woodlands exceeding 10 acres in area.
 - (c) The impacts on any interior forest area; riparian buffer area; steep slope area; rare, threatened, or endangered species habitat area; and scenic views.
 - (d) Disturbance of critical woodlands shall be permitted only when there is no possible alternative disturbance on non-critical woodlands.
 - (e) Each building or structure shall be laid out and constructed in such a manner as to provide the least alteration or disturbance necessary of the existing woodlands and other vegetation. Clear-cutting shall be minimized and trees shall be selectively removed.
 - (f) Remaining undisturbed woodlands and other vegetation shall interconnect with woodlands or wooded areas of adjacent properties to preserve continuous woodland corridors and allow for the normal movement, dispersion, and migration of wildlife.
 - (g) Consideration shall be given to balancing the benefits of woodland preservation with other valuable resources on the site, including scenic views. The Township shall not unreasonably restrict woodland disturbance where limited disturbance may permit siting of buildings in less visually obtrusive areas of the tract.
- (3) Woodland removal for purposes of development pursuant to the requirements of this Section shall not be regulated as timber harvesting, except that the forest practices set forth in the Pocono Township Timber Harvesting ordinance shall apply.
- (4) Woodlands, individual trees, and other vegetation that are to remain on the site shall be identified on the plan and protected in accordance with the following:
- (a) A tree protection zone (TPZ), which is an area radial to the trunk of the tree or to the woodland area to be preserved, shall be established. The TPZ shall extend to the edge of the critical root zone (CRZ) of the woodland area to be protected, or in the case of an individual tree, to the critical root zone of the tree. The critical root zone is the distance from the tree trunk that equals one foot for every one inch of the tree's diameter at breast height (dbh).
 - (b) Prior to construction, trees or woodlands to be preserved that are within 50 feet of any proposed construction, grading, clearing, or related activity shall have their TPZ/CRZ demarcated by minimum 4-foot high, orange construction fencing or approved equivalent. The fencing shall be installed along the outer edge of the delineated TPZ/CRZ, shall be maintained until all construction activities have been completed, and shall be inspected by the Township prior to initial earth disturbance and, thereafter, at its discretion.
 - (c) No earth disturbance, earth compaction, vehicular or foot traffic, construction of proposed improvements or utilities, or other disturbance shall occur within the TPZ/CRZ, and grade changes and excavation

activity shall not encroach upon any area within the TPZ/CRZ.

- (d) Construction materials, equipment, soil and/or debris shall not be stored nor disposed of within the TPZ/CRZ, except for mulched vegetative matter used to prevent soil compaction.
- (e) No toxic materials shall be stored within 100 feet of a TPZ/CRZ, including petroleum-based and derived products. Where the TPZ/CRZ is coincident with a riparian buffer, the more restrictive provisions of §470-151E shall apply.
- (f) Sediment, retention, and detention basins shall not be located within the TPZ/CRZ, nor shall they discharge into the TPZ/CRZ.
- (g) Any trees within 25 feet of a building, or bordering entrances or exits to building sites, shall be protected by a temporary barrier to be maintained in place throughout the duration of construction activity.
- (h) No boards or other material shall be nailed or otherwise attached to any trees during construction.
- (i) Roots shall not be cut within the critical root zone of any trees to remain.
- (j) Tree trunks, limbs, and exposed roots damaged during construction shall be protected from further damage by being treated immediately in accordance with accepted professional landscape procedures.

C. Tree and Woodland Replacement.

- (1) The removal of declining, **invasive**, damaged or diseased trees, or those which present a hazard are exempt from the tree replacement requirement.
- (2) Deciduous replacement trees shall be eight feet minimum height if multi-stem trees. Evergreen replacement trees shall be seven feet minimum height.
- ~~(3) Required replacement tree calculation based on area of woodland or critical woodland disturbance: At a minimum, for each 500 square feet of woodland or critical woodland disturbance area, or fraction thereof, in excess of the applicable limit set forth in this Article, and regardless of the character and sizes of the disturbed vegetation, one tree at least 2-inch caliper shall be planted.~~
- (4) ~~Replacement tree calculation based on specific tree removal.~~ Replacement of trees removed in excess of the disturbance limits set forth in §470-152.B(1). ~~Regardless of any disturbance allowances, for~~ For each tree greater than 12 inches dbh to be removed, required replacement trees ~~also~~ shall be planted and shall be calculated in accordance with the following schedule:

For Each Tree to be Removed	Minimum Number and Caliper of Replacement Trees
One, 12 to 18 inch dbh	Two, 2 inch dbh
One, 18 to 24 inch dbh	Three, 2 inch dbh

One, 24 to 36 inch dbh	Four, 2 inch dbh
One, greater than 36 inch dbh	Six, 2 inch dbh

- (5) Required replacement shrubs. At a minimum, for each 100 square feet of woodland or critical woodland disturbance area, or fraction thereof, in excess of the applicable standard set forth in this Article, and regardless of the character and sizes of the disturbed vegetation, one shrub at least 24 inches to 30 inches in height shall be planted in addition to any required tree replacement. Shrubs planted in accordance with this requirement may be of restoration quality and not necessarily landscape quality.
- (6) Where replacement trees are required but not suitable for the particular site prescribed due to the size of the site or other limitations, the Board of Commissioners may allow the following as alternative planting mitigation:
 - (a) The required number may be reduced by providing larger sized trees so that the total number of equivalent caliper inches is provided.
 - (b) Some or all of the required replacement plantings may be installed at a site other than that subject to required replacement planting. In such cases and to the extent possible, the plantings should be installed within the same watershed from which they were removed.
 - (c) The applicant may provide a fee to the Township equal to the estimated installed value of the plantings, to be deposited into a special fund established for that purpose. Such fund shall be utilized at the discretion of the Township for the purchase and installation of plantings elsewhere in the Township. Installation of such plantings on private lands shall be dependent upon the establishment of conservation easement(s) or other restriction(s) acceptable to the Township that will reasonably guarantee the permanent protection of such plantings.
- (7) Required replacement plantings shall be in addition to any required street trees or any other landscape material required under the provisions of this chapter or the Pocono Township Subdivision and Land Development ordinance.
- (8) The locations, selected species and sizes of all replacement plantings, along with a planting schedule tied to the timing and/or phasing of the development, shall be indicated on the final subdivision/land development plan(s) or building or zoning permit application, as applicable.
- (9) Required replacement vegetation and their measurement shall conform to the standards of the publications "American or U.S.A. Standard for Nursery Stock", ANSI or U.S.A.S. Z60.1 of the American Association of Nurserymen, as amended. All plant material used on the site shall have been grown so as to have a high likelihood of survival on the site (e.g., grown specifically for planting in the applicable USDA hardiness zone) and shall be nursery grown.
- (10) Because of the many benefits of native plants (ease of maintenance,

longevity, wildlife habitat, etc.), the use of nursery-grown free-fruiting native trees and shrubs is strongly encouraged. Species selection should reflect species diversity characteristic of the native deciduous woodland.

- (11) Species of replacement plantings selected and planting locations shall reflect careful site evaluation and, in particular, the following considerations:
- (a) Existing and proposed site conditions and their suitability for the plant materials, based upon the site's geology, hydrology, soils and microclimate.
 - (b) Specific functional and design objectives of the plantings, which may include, but not necessarily be limited to: replacement of woodland area removed, enhancement of existing woodland or oldfield area(s), reforestation of impacted riparian buffer areas, mitigation of new woodland edge conditions as a result of land disturbance, provision for landscape buffer, visual screening, noise abatement, energy conservation, wildlife habitats and aesthetic values.
 - (c) Maintenance considerations, such as hardiness, resistance to insects and disease, longevity and availability.
- (12) All replacement plantings shall be guaranteed and maintained in a healthy and/or sound condition for at least 18 months. If a replacement planting dies or is dying within the guarantee period, the landowner shall replace the dead or dying planting. In addition, the applicant may be required to escrow sufficient additional funds for the maintenance and/or replacement of the proposed vegetation during the 18 month replacement period, and to provide for the removal and replacement of vegetation damaged during construction, based upon the recommendation of the Township Engineer.

D. Invasive species.

- (1) Invasive species, as identified on the most recent version of the Pennsylvania Invasive Plant Species List, shall not be planted under any circumstances for any Township permitted activity, and where present their eradication or management should be implemented to the maximum extent possible.

§ 470-153. Timber harvesting.

- A. Timber harvesting shall comply with the Pocono Township Timber Harvesting ordinance.

§ 470-154. Rare, threatened, or endangered species.

- A. With the exception of selective removal of hazardous or invasive vegetation, no rare, threatened, or endangered species site shall be regraded, filled, built upon, or otherwise altered or disturbed.
- B. A buffer area ~~with a minimum dimension of 50 feet~~ as required by federal or state regulations shall be provided around the entire perimeter of any rare, threatened, or endangered species site within which no earth disturbance shall be permitted.

- C. To the minimum extent necessary to avoid disturbance to rare, threatened, or endangered species site(s) or to provide for required buffer(s), while providing for lawful use, modification to otherwise applicable area and bulk requirements may be approved by the Board of Commissioners as part of any applicable subdivision or land development application, or by the Zoning Officer as part of any applicable building permit.

§ 470-155. ~~Application of natural resource protection standards.~~ Plan information and continued protection of natural resources.

- A. Plan information and delineation of protected natural resources. To ensure compliance with the natural resource protection standards of this article, the following information shall be submitted by the applicant when applying for a zoning or building permit, conditional use or special exception approval, zoning variance, or subdivision and land development approval where land disturbance is contemplated. In those cases where only a limited portion of the site or tract will be subject to disturbance, the Board of Commissioners, based upon a recommendation from either the Zoning Officer or the Township Engineer, may allow a smaller area of land to be shown on the plan that will adequately demonstrate compliance with the natural resource protection standards of this section. Where less than the entire site is to be shown on the plan, the application shall be accompanied by a written explanation from the applicant as to why it is not necessary to include the entire site with the plan information.
 - (1) A site plan which identifies the limits of each of the natural resources on the site, any applicable buffer areas, and ~~including~~ areas of woodlands, critical woodlands, or other vegetation to be preserved, and the proposed use of the site including any existing or proposed structures.
 - (2) The limits of all encroachments and disturbances necessary to establish the proposed use on the site, including a grading plan showing existing and proposed contours.
 - (3) Calculations indicating the area of the site with natural resources and the area of natural resources that would be disturbed or encroached upon. The calculations shall be shown on the plan as indicated in the following table. The figures in Column D (Proposed Disturbance) shall be less than or equal to the corresponding figures in Column C (Maximum Amount of Permitted Disturbance) for each protected resource.

Protected Resource	Column A Amount of Land in Protected Resource (square feet)	Column B Maximum Disturbance Allowance* (percent)	Column C Maximum Amount of Permitted Disturbance (square feet)	Column D Proposed Disturbance of Resource (square feet)
Floodplain		0%		
Steep Slopes:				
Moderately		25%		
Very Steep		10%		
Wetlands, Lakes, Ponds		0%		
Wetland buffers		0%		
Riparian Buffers		0%		

Woodlands:				
Critical		5%		
Non-critical, residential		35%		
Non-critical, nonresidential		50%		
Rare, threatened, endangered species site		0%		
Total				

* Disturbance allowances may be modified where federal or state permits have been obtained by the applicant and provided to the Township.

- B. Continued protection of identified natural resources. To ensure the continued protection of identified natural resources, the following requirements shall apply:
- (1) Protected natural resource areas on individual lots.
 - (a) For natural resource areas protected under the terms of this section located on individual lots, deed restrictions, conservation easements, or other permanent mechanisms acceptable to the Township shall be recorded for each lot that has such natural resource areas within its boundaries.
 - (b) The mechanism(s) approved by the Township for permanent protection of natural resources shall clearly state that the maintenance responsibility lies with the individual property owner and shall provide for the continuance of natural resource protection in accordance with the provisions of this chapter.
 - (2) Protected natural resource areas held in common.
 - (a) For protected natural resource areas held in common, the open space maintenance provisions and ownership options of § ____, shall apply.
 - (b) The party or organization responsible for the maintenance of the natural area(s) shall be clearly identified in the deed. The restrictions shall provide for the continuance of the protected natural resource areas in accordance with the provisions of this chapter. In addition, restrictions on protected areas shall be included in the development's declaration of covenants, easements, or restrictions or similar documents regulating the use of property and setting forth methods for maintaining open space. A copy of such documents shall be provided to the Township.
 - (3) Changes to approved plans. All applicable plans and deeds shall include the following wording: "Any structures, infrastructure, utilities, sewage disposal systems, or other proposed earth disturbance indicated on the approved final plan shall only occur at the locations shown on the plan. Changes to such locations shall be subject to additional review and re-approval in accordance with the natural resource protection standards of Article XI of Chapter 470, Zoning, of the Pocono Township Code."

§ 470-156. Modifications to Natural Resource Protection Standards.

- A. For any use or activity subject to Subdivision or Land Development review, as part of applicable Plan submission, modification(s) may be requested to the provisions of § 470-150.A(2) (steep slopes), § 470-151.B and D (riparian buffers and wetland, lake and pond buffers), § 470-152 (woodlands, specimen vegetation and heritage trees), and § 470-154 (rare, threatened or endangered species) of this Article. Requested modification(s) may be granted at the discretion of the Board of Commissioners pursuant to the provisions of the Subdivision and Land Development Ordinance.
- B. For any use or activity not subject to Subdivision or Land Development review, but subject to application for approval of a Conditional Use, Special Exception, or Zoning Variance under the provisions of this Ordinance, the applicant may request modification(s) to the provisions of § 470-150.A(2) (steep slopes), § 470-151.B and D (riparian buffers and wetland, lake and pond buffers), § 470-152 (woodlands, specimen vegetation and heritage trees), and § 470-154 (rare, threatened or endangered species) of this Article.
- C. For any use or activity not falling within the scope of subsections A or B, above, the applicant may request modification(s) to the provisions of § 470-150.A(2) (steep slopes), § 470-151.B and D (riparian buffers and wetland, lake and pond buffers), § 470-152 (woodlands, specimen vegetation and heritage trees), and § 470-154 (rare, threatened or endangered species) of this Article in the form of an application for grant of a Special Exception by the Zoning Hearing Board. Such applications shall be submitted to the Planning Commission and Board of Commissioners for review and comment prior to formal Special Exception application to the Zoning Hearing Board.
- D. Applicants shall provide appropriate documentation in support of their modification request, and the Board of Commissioners or Zoning Hearing Board (as applicable) may request additional documentation of an applicant, or of its municipal consultants, to help reach its decision
- E. In consideration of approval of any applicant request for modification(s) under this Article, the following standards shall serve as the basis for a decision:
- (1) That there are unique physical circumstances or conditions, including but not limited to irregularity, narrowness, or shallowness of lot size or shape, excessive frontage along a water body, or watercourse, presence of existing buildings or structures, or exceptional topographical or other physical conditions peculiar to the particular property. That because of such physical circumstances or conditions, it is impracticable for the property to be developed in strict conformity with the standards of this Article and that the approval of the modification is therefore necessary to enable the reasonable use of the property under base zoning provisions.
 - (2) That the modification, if approved, will result in the minimum disturbance of the natural feature as needed to provide for the lawful intended use.

PRINCIPAL SOLAR ENERGY FACILITY OVERLAY DISTRICT

Regulated as an overlay district

§ 470-22.2. General PSEF Principal Solar Energy Facility Overlay District

- A. Intent. To provide for the construction, installation, operation and decommissioning of principal solar energy facilities in Pocono Township, subject to reasonable conditions that will protect the public health, safety, and welfare.
- B. Applicability.
- (1) This §470-22.2 applies to any principal solar energy facility (PSEF) proposed to be constructed, installed, operated, or decommissioned after the effective date of this ordinance.
 - (2) Any upgrade, modification, or structural change that materially alters the size or placement of an existing PSEF or its solar energy system(s) shall comply with the provisions of this §470-22.2.
 - (3) For any lot or property, or portion thereof, within the Principal Solar Energy Facility Overlay District, the regulations of said overlay district shall supersede any regulations of the underlying district which are in conflict with those of this §470-22.2. **The area and boundary of the PSEF Overlay District is designated on the Official Zoning Map of Pocono Township, as may be amended.**
- C. Use Regulations.
- (1) A principal solar energy facility shall only be located in the Principal Solar Energy Facility Overlay District and shall only be permitted in said overlay district as a conditional use in accordance with §470-130 of this chapter, as may be amended. A PSEF shall also meet the requirements of the Pocono Township Subdivision and Land Development Ordinance, as may be amended, including, but not limited to, land development requirements. In addition to the requirements set forth in §470-130, the PSEF owner and/or applicant shall provide the following as part of their conditional use application:
 - (a) **A narrative describing the proposed PSEF, including an overview of the project; the project location; the approximate generating capacity of the PSEF; the approximate number, representative types and height/extent or range of heights/extent of solar panels to be constructed, including their generating capacity, dimensions, and respective manufacturers; and a description of ancillary facilities.**
 - (b) **Identification of the properties on which the proposed PSEF will be located and the properties adjacent to where the PSEF will be located.**
 - (c) A descriptive site plan including, but not limited to, dimensioned setbacks, locations of property lines, roadways and driveways, location and size of solar panels, modules and/ or arrays, **electrical lines and cabling from the PSEF to substations,** elevations and heights of buildings and structures, location and detail of perimeter fencing, and buffer and landscaping requirements. The site plan shall incorporate a

fire protection plan, including, but not limited to, location of hydrants and other on-site and off-site firefighting equipment, and a narrative of same shall be provided to the Township and Pocono Township Fire Chief for their review and comment.

- (d) Evidence that the electric utility company has been informed of the owner's and/or operator's intent to install such facility and its intended connection to the utility grid. A copy of the electric utility company's approval to connect to the utility grid shall be provided to the Township if secured at time of conditional use application, but not later than at time of application for zoning permit.
- (e) An affidavit or evidence of agreement between the property owner and PSEF owner and/or operator confirming the PSEF owner and/or operator has permission to apply for the conditional use. Copies of all necessary permits for the construction, installation, operation and decommissioning of the PSEF and its solar energy system(s) shall be provided if secured at time of conditional use application, but not later than at time of application for zoning permit.
- (f) Copies of all studies, analyses, reports, certificates and approvals required by all agencies shall be provided to the Township if secured at time of conditional use application, but not later than at time of application for zoning permit. At time of conditional use application, the Township shall be provided with: (1) three copies of a Resource Impact and Conservation Analysis conforming to the requirements of §390-25.E of the Subdivision and Land Development Ordinance which shall also include, but not be limited to, impacts, if any, of the project's electromagnetic field(s) [EMF], hazardous materials, wired and wireless communications interference, and "heat island effect" (as described by the U.S. EPA) on adjacent properties; (2) three copies of a Phase I Environmental Assessment of the PSEF site dated not more than one year before the Township's receipt of the conditional use application, and (3) three copies of existing Phase 1, 2 and 3 Environmental Assessments pertaining to the PSEF site, as applicable. Pending and future environmental assessments upon completion shall be provided to the Township. The Township and/or any of its consultants shall be provided with copies of other studies, analyses, and/or reports, as may be reasonably requested, including but, not limited to, the PSEF and its solar energy system design by the PSEF owner's and/or applicant's engineer and traffic impact analysis during construction and decommissioning of the PSEF.
- (g) **Documents related to decommissioning in accordance with §470-22.2.(2)(t).**
- (h) Traffic routes in the Township, traffic volumes and delivery times, and truck weights and sizes relative to PSEF construction and solar energy system(s) installation and decommissioning shall be provided as part of the conditional use application. Off-street parking and staging areas for construction-related and delivery vehicles shall be depicted on the conditional use site plan. Township streets shall not be used for parking or staging of construction-related or delivery vehicles during installation and/or decommissioning of the PSEF.
- (i) Payment in full of applicable conditional use hearing fees. The PSEF owner and/or applicant shall be responsible for payment of fees in excess of hearing fees submitted with the conditional use application prior to issuance of a zoning permit for Township Engineer and/or Solar Energy Consultant fees.

- (2) The following standards, requirements and criteria, without limitation, shall apply to a principal solar energy facility:
- (a) The owner or operator of a PSEF which will be connected to a utility grid shall provide a copy of a current and valid written authorization from the utility company to the Township acknowledging and approving such connection not later than application of a zoning permit.
 - (b) The PSEF and its solar energy system(s), solar related equipment, principal and accessory buildings and structures, and parking facilities shall be enclosed by perimeter chain-link fencing, and/or other fencing required by state or federal agency, and an access gate(s) at a height between eight and nine feet for the purpose of restricting unauthorized access. Such fencing shall be green poly-coated and shall not include barbed wire or similar product unless otherwise required by a state or federal agency.
 - (c) Within 10 feet outside the perimeter fencing stated above, the initial row of two staggered rows of eight-foot tall deer-resistant evergreen trees at initial planting shall be planted with trees in each row spaced at a maximum of 20 feet on center. The staggered rows of evergreens shall provide an immediate visual screen of the PSEF and evergreen tree spacing in each row shall ensure closure between trees at maturity, except at the access gate(s).
 - (d) A compacted stone and/or paved perimeter road to serve as a firebreak, of material, depth and width satisfactory to the Township Engineer and Fire Chief, and approved by the Board of Commissioners, shall be located between the perimeter fencing stated above and the solar related equipment, within the applicable front, side and rear yard setbacks for solar related equipment,. An alternative method of providing PSEF perimeter fire protection may be proposed by the PSEF owner and/or operator and may be approved by the Board of Commissioners after recommendations by the Township Engineer and Fire Chief.
 - (e) Access roads and parking areas within the PSEF shall be compacted stone and/or of a paved material, of depth and width satisfactory to the Township Engineer and approved by the Board of Commissioners.
 - (f) The PSEF shall be designed and constructed so that ground leveling is limited to those areas needed for installation of PSEF land development improvements and solar related equipment so that the natural ground contour is preserved to the greatest extent practical. Any earth disturbance shall, at a minimum, require an erosion and sedimentation control plan approved by the Monroe County Conservation District. Such earth disturbances in conjunction with a site alteration or land development shall meet the applicable sections of this chapter, the Subdivision and Land Development Ordinance, and Stormwater Management Ordinance, as may be amended.
 - (g) ~~Frees~~ Woodlands and other vegetation shall be preserved to the maximum extent possible. Woodland and vegetation protection and replacement shall be in accordance with the Subdivision and Land Development Ordinance. ~~Every existing tree, eight inches or more in diameter (measured at 4.5 feet off the ground), that is removed shall be replaced on a 1:1 basis with a native tree that has the same~~

~~maximum height and growth rate of the tree to be removed. The replacement trees at initial planting shall be not less than 2 1/2 inches caliper and/or eight feet in height above ground level. The replacement trees shall grow to be at least 15 feet tall after planting and any trimming, and shall be placed on the PSEF site to maximize stormwater management and/or screening of the PSEF from adjacent properties. Replacement trees and their measurement shall conform to the standards of the publications "American or U.S.A. Standard for Nursery Stock", ANSI or U.S.A.S. Z60.1 of the American Association of Nurserymen, as amended. All plant material used on the site shall have been grown so as to have a high likelihood of survival on the site (e.g., grown specifically for planting in the applicable USDA hardiness zone) and shall be nursery grown.~~

- (h) The manufacturer's or installer's identification and appropriate warning signage not greater than three square feet each, or the minimum square footage signage allowed by applicable code, state or federal agency, shall be posted on the access gate(s) and/or perimeter fencing as required by applicable regulations. Except as provided herein, a PSEF shall not display signage of any kind, including, but not limited to, streamers, pennants, spinners, reflectors, ribbons, tinsel, balloons, flags, banners or similar materials.
- (i) All on-site utility lines shall be placed underground unless otherwise approved by the Board of Commissioners. The conditional use site plan and land development plan shall clearly depict where all underground and above-ground utility lines are proposed.
- (j) A PSEF shall comply with the following bulk and coverage controls:

Minimum Front, Side and Rear Yard Setback From Nearest Overlay District Boundary Line For Perimeter Fence	50 feet
Minimum Front, Side and Rear Yard Setback From Nearest Overlay District Boundary Line For Solar Panels And Their Mounting Equipment except as provided below	75 feet

<p>Minimum Front, Side and Rear Yard Setback From Nearest Overlay District Boundary Line For Principal and Accessory Buildings and/or Structures (including parking facilities and other structures containing or attached with equipment which cause sound, vibration, and/or emission, including, but not limited to, odor, smoke, vapor, gas, heat, dust, dirt, air pollution of any kind, EMF, wired and wireless communications interference, light or glare¹) except as otherwise provided herein</p>	<p>150 feet</p>
<p>Maximum Solar Panel Height</p>	<p>15 feet</p>
<p>Maximum Building, Structure and/or Appurtenance Height</p>	<p>15 feet</p>

Maximum Ground Coverage ²	60%
Minimum Lot Area	5 acres

¹In no case shall any sound, vibration, and/or emission of any kind from a PSEF occur beyond the PSEF property lines.

²Maximum ground coverage for the purpose of this Section is defined as the maximum percentage obtained by dividing the total impervious surface area, including the ground floor area of all principal and accessory buildings, **the area of any paved road or other surface**, and the cumulative surface area of solar panels on the lot, properties or tract by the total area of the lot, properties or tract upon which the buildings and solar panels are located.

- (k) The cumulative surface area of solar panels, regardless of the mounted angle, shall be calculated as part of the overall impervious coverage. Native grasses and/or other native vegetation satisfactory to the Township Engineer, consultant, or licensed landscape architect shall be planted and maintained below and between ground-mounted solar panels, modules and/or arrays, except where access roads are provided, unless other ground cover is required by a state or federal agency or recommended by the Township Engineer, consultant, or licensed landscape architect and approved by the Board of Commissioners. A note on the PSEF land development plan shall detail the type of grass and/or other suitable vegetation below and between ground-mounted solar panels and its maintenance to ensure continuous ground cover, soil stabilization, stormwater infiltration, and minimized risk of a fire hazard.
- (l) Solar panels shall be placed such that concentrated solar radiation (e.g., light, heat, EMF and/or communications interference) or glare shall not be directed onto other properties, roadways or other areas accessible to the public. The PSEF owner and/or operator has the burden of proving that any solar radiation (described above) or glare produced does not adversely impact upon other properties, aircraft, flying species, and/or adjacent uses either through siting or mitigation. The PSEF owner and/or operator shall be responsible to mitigate any adverse solar radiation (described above) or glare impacts, as determined by the Township Engineer or consultant, prior to issuance of a certificate of occupancy and/or after issuance of a certificate of occupancy.
- (m) Solar panels shall not be placed in the vicinity of any airport in a manner that would interfere with airport flight patterns. Acknowledgement of same from the Federal Aviation Administration, or other agency or entity, may be necessary at the discretion of the Board of Commissioners.
- (n) The layout, design, construction, installation and operation of the PSEF and its solar energy system(s) shall conform to applicable industry standards, such as those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory (ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations, or more stringent standards required by state and/or federal agencies. All applicable building permits shall be obtained for the PSEF and

its solar energy system(s) per the Pennsylvania Uniform Construction Code (UCC), Act 45 of 1999, 35 P.S. § 7210.101 et seq., as amended, and applicable regulations adopted by the Department of Labor and Industry. All wiring shall comply with the applicable version of the National Electric Code (NEC). The local utility provider shall be contacted to determine grid interconnection and net metering policies; the Township shall be provided with copies of utility provider approvals and compliance with those same policies and any future change in status. The applicant shall submit certificates of design compliance obtained by the equipment manufacturer from a certifying organization and any such design shall be certified by an engineer licensed in the Commonwealth of Pennsylvania. The manufacturer specifications for the key components of the solar energy system(s) shall be submitted as part of the application.

- (o) The PSEF and its solar energy system(s) shall be designed and operated to protect public safety including development and implementation of a plan of operating procedures to prevent public access inside the PSEF, including, but not limited to, security cameras and security lighting shielded to prevent glare and spillover onto adjacent properties. A PSEF Emergency Operations Plan (EOP) shall be provided to the Township, Fire Chief and Township Emergency Management Coordinator prior to issuance of a certificate of occupancy. The EOP shall provide specific instructions for fire protection and handling and disposing of hazardous materials contained in and/or released from solar related equipment. No solar related equipment and/or hazardous materials shall be buried on site or disposed of in violation of local, state or federal regulations.
- (p) A PSEF and its solar energy system(s) shall not be constructed until all applicable building and zoning permits have been issued, all approvals have been secured and security has been provided for the installation of PSEF land development improvements and decommissioning. ~~The construction of a PSEF and its solar energy system(s) shall be completed and fully operational within one calendar year of issuance of a zoning permit.~~ Before any construction can commence on any PSEF and its solar energy system(s), the property owner must acknowledge that they are the responsible party for owning and maintaining the facility and its solar energy system(s). Prior to issuance of a certificate of occupancy and operation of the PSEF, the PSEF owner and/or operator shall provide the Township with copies all applicable regulatory permits and approvals to operate the PSEF.
- (q) The Township shall be notified in writing within 30 days of a change in: (1) PSEF ownership, (2) PSEF operator and/or (3) owner of land upon which the PSEF is located, and the Township shall be provided with contact name(s), address(es), phone number(s), email addresses(es), and emergency contact information. The PSEF owner and/or operator shall maintain a phone number and email address, and shall identify a person responsible for the public Township to contact with inquiries and complaints throughout the life of the project and shall provide this number and name to the Township. ~~The PSEF owner and/or operator shall make timely and reasonable efforts to respond to the public's inquiries and complaints.~~
- (r) If a PSEF or any of its solar energy system(s) or components are deemed to be a public safety hazard by a Code Enforcement Officer, Building Code Official, Township Engineer or consultant, or state or federal agency, the PSEF owner and/or operator, after written notice by any of the entities stated above, shall be responsible

for making immediate repairs or removal of the condition causing such hazard. If the PSEF owner or operator fails to make immediate repairs or remove said conditions, Pocono Township shall have the option to pursue reasonable hazard mitigation measures at the PSEF owner's expense without further notice to the PSEF owner or operator.

- (s) An annual inspection report prepared by an independent professional engineer licensed in the Commonwealth of Pennsylvania shall be submitted to the Township not later than 30 days following each anniversary of the date on which the PSEF commenced operation. The inspection report shall certify the structure soundness, proper operation of the facility, consistency with the conditional use decision conditions, and consistency with the approved land development plan. The requirement to submit the annual report shall be such that it shall be required even if not specifically included in or as part of a conditional use decision.
- (t) Decommissioning of a PSEF or any of its solar energy system(s) shall include the following, without limitation:
- (1) The PSEF owner and/or operator shall execute a Decommissioning Agreement, to be approved by the Township pending the review of the Township Solicitor, before the final plan is released by the Board of Supervisors and filed on record. Said agreement shall contain all terms and conditions for decommissioning requirements.
 - (2) If a PSEF or any of its solar energy system(s) have not been in operation for a period of six consecutive months, the PSEF owner or operator shall notify the Township in writing with the reason(s) for inoperability and their intentions to re-establish operations or plans for decommissioning. The PSEF owner or operator shall notify the Township immediately upon cessation or abandonment of the operation. The PSEF or one or more of its solar energy systems shall be presumed to be discontinued or abandoned if no electricity is generated by such system for a period of 12 continuous months.
 - (3) The PSEF owner and/or operator shall, at its expense, have six months from cessation or abandonment in which to dismantle and remove the PSEF including all solar related equipment or appurtenances related thereto, including, but not limited to, buildings, cabling, electrical components, roads, foundations and other associated facilities from the property, and shall re-vegetate disturbed earth back to its predevelopment condition in accordance with subsection (7), below.
 - (4) Engineer Decommissioning Costs. An independent and certified Pennsylvania professional engineer shall be retained by the PSEF owner or operator to estimate the total cost of decommissioning without regard to salvage value of the PSEF solar related equipment. Said estimates shall be submitted to the Township after the first year of issuance of a certificate of occupancy and every 5th year thereafter.
 - (5) Decommissioning Financial Security. The PSEF owner or operator, prior to the issuance of a zoning permit, shall provide financial security with the Township as payee in an amount approved by the Board of Commissioners, from a company and in a form and content acceptable to the Board of

Commissioners, to insure decommissioning and re-vegetation as set forth herein. The security shall remain in place for as long as the PSEF or its solar energy system(s) exist at the site and until restoration of the site is satisfactorily completed. The PSEF owner or operator shall be responsible to have the financial security certificate holder describe the status of the bond or letter of credit in an annual report submitted to the Township. The financial security shall not be subject to revocation, reduction or termination unless and until approved by the Board of Commissioners based upon the Township Engineer's and Solicitor's recommendation that decommissioning and re-vegetation have been satisfactorily completed.

- (6) Landowner Responsibility. If the PSEF owner or operator fails to complete decommissioning and re-vegetation within the time period stated herein, then decommissioning and re-vegetation in accordance with this chapter shall become the responsibility of the landowner, and such landowner shall have six months to complete decommissioning and re-vegetation.
- (7) Township Intervention. If neither the PSEF owner or operator, nor the landowner completes decommissioning and re-vegetation within the prescribed periods, then the Township may take such measures as necessary to complete decommissioning and re-vegetation. The submission of evidence of a participating landowner agreement to the Township shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors and assigns that the Township may take such action as necessary to implement the decommissioning and re-vegetation plan.
- (8) Decommissioning conditions of the zoning permit shall include, but not be limited to:
 - (a) If the PSEF owner or operator ceases operation of the facility or any of its solar energy system(s), or begins, but does not complete, construction of the project, the PSEF owner and/or operator shall restore the site to its condition prior to any disturbance related to the PSEF facility. The site shall be restored to a useful, non-hazardous condition without significant delay, including but not limited to the following:
 - [1] Removal of aboveground and underground equipment, structures and foundations to a depth of at least three feet below grade. Underground equipment, structures and foundations need not be removed if they are at least three feet below grade and do not constitute a hazard or interfere with agricultural use or other resource uses of the land.
 - [2] Restoration of the surface grade and soil after removal of aboveground structures and equipment.
 - [3] Removal of graveled areas and access roads.
 - [4] Revegetation of restored soil areas with native seed mixes and native plant species suitable to the area.
 - [5] For any part of the PSEF project on leased property, the plan may incorporate agreements with the landowner regarding leaving access

roads, fences, gates or buildings in place or regarding restoration of agricultural crops or forest resource land.

[6] The plan shall provide for the protection of public health and safety and for protection of the environment and natural resources during site restoration.

[7] The plan shall include a schedule for completion of site restoration work.

- t. Prior to the issuance of a zoning permit, the PSEF owner or applicant must acknowledge in writing that the issuing of said permit shall not and does not create in the property owner, its, his, her or their successors and assigns in title or, create in the property itself: (1) the right to remain free of shadows and/or obstructions to solar energy caused by development of adjoining or other property or the growth of any trees or vegetation on such property; or (2) the right to prohibit the development on or growth of any trees or vegetation on such.
- u. Solar Easements.
 - (1) Where a subdivision or land development proposes a PSEF, solar easements may be provided. Said easements shall be in writing, and shall be subject to the same conveyance and instrument recording requirements as other easements.
 - (2) Any such easements shall be appurtenant; shall run with the land benefitted and burdened; and shall be defined and limited by conditions stated in the instrument of conveyance. Instruments creating solar easement shall include, but not be limited to:
 - (a) A description of the dimensions of the easement including vertical and horizontal angles measured in the degrees or the hours of the day, on specified dates, during which direct sunlight to a specified surface or structural design feature may not be obstructed.
 - (b) Restrictions on the placement of vegetation, structures, and other objects which may impair or obstruct the passage of sunlight through the easement.
 - (c) Enumeration of the terms and conditions, if any, under which the easement may be revised or terminated.
 - (d) Explanation of the compensation for the owner of the real property subject to the solar easement for maintaining the easement and for the owner of the real property benefitting from the solar easement in the event of interference with the easement.
 - (3) A PSEF owner and/or operator is responsible to obtain any solar easements necessary to guarantee unobstructed solar access by separate civil agreement(s) with adjacent property owner(s), if determined necessary by said owners and/or operators.
- v. The PSEF owner and/or operator shall repair, maintain and replace the facility and

related solar equipment during the term of the facility's use in a manner consistent with industry standards as needed to keep the facility safe and in good repair and operating condition. Maintenance and cleaning of photovoltaic panels or heliostats shall include chemicals or solvents low in volatile organic compounds and the facility operator shall use recyclable or biodegradable products to the extent possible.

- w. The following conditions, which may be amended by the Board of Commissioners, shall apply to a PSEF conditional use approval in addition to any other conditions imposed by the Board of Commissioners in their conditional use decision:
- (1) The PSEF applicant, owner and/or operator shall resolve any outstanding comments of the Township Engineer's conditional use and/or land development review letters to the satisfaction of the Board of Commissioners prior to issuance of a certificate of occupancy and operation of the PSEF.
 - (2) The PSEF owner and/or operator shall be responsible for repairs to improvements within Township rights-of-way caused by vehicular traffic generated to construct or decommission the PSEF and shall provide adequate security as determined by the Board of Commissioners for such improvement repairs.
 - (3) The PSEF applicant, owner and/or operator shall install a Knox-type box on all access gates for emergency access by the Pocono Township Volunteer Fire Department and other emergency responders.
 - (4) The PSEF applicant, owner and/or operator shall prepare a "schedule of maintenance" for review and recommendation by the Township Engineer and/or Township Solar Energy Consultant and approval by the Board of Commissioners prior to issuance of a certificate of occupancy and operation of the PSEF. The "schedule of maintenance" shall include, but not be limited to, a detailed description of daily, weekly, monthly, annual and seasonal inspection and maintenance applicable to vegetation, stormwater facilities, solar related equipment and other improvements on the PSEF site.
 - (5) Delivery of solar related equipment to the PSEF site and construction activities on the PSEF site shall be limited to 7:00 a.m. through 7:00 p.m. on Mondays through Saturdays, except for emergency repairs which may occur as needed. There shall be no deliveries of solar related equipment and construction activities on the PSEF site on Sundays and holidays, except for emergency repairs which may occur as needed. Deliveries and removal of solar related equipment and truck traffic to and from the PSEF site during construction, operation and/or decommissioning shall be limited to the route(s), days and times approved by the Board of Commissioners.
 - (6) Solar related equipment and parts thereto not in active operation on the PSEF site shall be stored in an enclosed building and/or concealed within solid fencing no closer than the one-hundred-fifty-foot setback for principal and accessory buildings and/or structures under Subsection 2(j) above.
 - (7) A failure to comply with any condition or requirement herein set forth shall

constitute a violation of the said condition or requirement. Each day's continuation of a violation shall constitute a separate violation. All such violations shall be subject to the penalties set forth in §470-127.

PRINCIPAL WIND ENERGY FACILITY OVERLAY DISTRICT

Regulated as an overlay district

§ 470-22.3. General PWEF Principal Solar Energy Facility Overlay District

- A. Intent. To provide for the construction, installation, operation and decommissioning of principal wind energy facilities in Pocono Township, subject to reasonable conditions that will protect the public health, safety, and welfare.
- B. Applicability.
- (1) This §470-22.3 applies to any principal wind energy facility (PWEF) proposed to be constructed, installed, operated, or decommissioned after the effective date of this ordinance.
 - (2) Any upgrade, modification, or structural change that materially alters the size or placement of an existing PWEF or its related equipment shall comply with the provisions of this §470-22.3.
 - (3) For any lot or property, or portion thereof, within the Principal Wind Energy Facility Overlay District, the regulations of said overlay district shall supersede any regulations of the underlying district which are in conflict with those of this §470-22.3. The area and boundary of the PWEF Overlay District is designated on the Official Zoning Map of Pocono Township, as may be amended.
- C. Use Regulations.
- (1) A principal wind energy facility shall only be located in the Principal Wind Energy Facility Overlay District and shall only be permitted in said overlay district as a conditional use in accordance with §470-130 of this chapter, as may be amended. A PWEF shall also meet the requirements of the Pocono Township Subdivision and Land Development Ordinance, as may be amended, including, but not limited to, land development requirements. In addition to the requirements set forth in §470-130, the PWEF owner and/or applicant shall provide the following as part of their conditional use application:
 - (a) A narrative describing the proposed PWEF, including an overview of the project; the project location; the approximate generating capacity of the PWEF; the approximate number, representative types, and height or range of heights of wind turbines to be constructed, including their generating capacity, dimensions, and respective manufacturers; and a description of ancillary facilities.
 - (b) Identification of the properties on which the proposed PWEF will be located and the properties adjacent to where the PWEF will be located.
 - (c) A descriptive site plan showing the planned location of each wind turbine, property lines, setback lines, access road and turnout locations, substation(s), electrical cabling from the PWEF to the substation(s), ancillary equipment, buildings, and structures, including permanent meteorological towers, associated transmission lines, and layout of all structures within the geographical boundaries of any

applicable setback. The site plan shall incorporate a fire protection plan, including, but not limited to, location of hydrants and other on-site and off-site firefighting equipment, and a narrative of same shall be provided to the Township and Pocono Township Fire Chief for their review and comment.

- (d) Evidence that the electric utility company has been informed of the owner's and/or operator's intent to install such facility and its intended connection to the utility grid. A copy of the electric utility company's approval to connect to the utility grid shall be provided to the Township if secured at time of conditional use application, but not later than at time of application for zoning permit.
- (e) An affidavit or evidence of agreement between the property owner and PWEF owner and/or operator confirming the PWEF owner and/or operator has permission to apply for the conditional use. Copies of all necessary permits for the construction, installation, operation and decommissioning of the PWEF shall be provided if secured at time of conditional use application, but not later than at time of application for zoning permit.
- (f) Documentation showing that the PWEF will comply with all applicable requirements of the Federal Aviation Administration (FAA) and the Commonwealth of Pennsylvania Bureau of Aviation (BOA).
- (g) A wind resource study documenting wind resources at the site. The study shall include but is not limited to data showing average wind speeds capable of generating electricity and the available capacity to transmit the electricity into the power grid.
- (h) A noise study demonstrating compliance with §470-22.3C(2)(i) below.
- (i) A shadow flicker study demonstrating compliance with §470-22.3C(2)(j) below.
- (j) Copies of all studies, analyses, reports, certificates and approvals required by all agencies shall be provided to the Township if secured at time of conditional use application, but not later than at time of application for zoning permit. The Township and/or any of its consultants shall be provided with copies of other studies, analyses, and/or reports, as may be reasonably requested, including but, not limited to, the PWEF system design by the PWEF owner's and/or applicant's engineer and traffic impact analysis during construction and decommissioning of the PWEF.
- (k) Traffic routes in the Township, traffic volumes and delivery times, and truck weights and sizes relative to PWEF construction and decommissioning shall be provided as part of the conditional use application. Off-street parking and staging areas for construction-related and delivery vehicles shall be depicted on the conditional use site plan. Township streets shall not be used for parking or staging of construction-related or delivery vehicles during installation and/or decommissioning of the PWEF.
- (l) Documents related to decommissioning in accordance with §470-22.3(2)(u).
- (m) Payment in full of applicable conditional use hearing fees. The PWEF owner and/or applicant shall be responsible for payment of fees in excess of hearing fees submitted with the conditional use application prior to issuance of a zoning permit

for Township Engineer and/or consultant fees.

- (2) The following standards, requirements and criteria, without limitation, shall apply to a principal wind energy facility:
 - (a) The layout, design, and installation of PWEF shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), Det Norske Veritas, Germanischer Lloyd Wind Energies, the American Society of Testing and Materials (ASTM), or other pertinent certifying organizations and comply with all applicable building and electrical codes of Pocono Township. The manufacturer specifications shall be submitted as part of the application.
 - (b) All PWEF shall be equipped with a redundant braking system. This includes both aerodynamic overspeed controls (including but not limited to variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for overspeed protection.
 - (c) Visual appearance.
 - [1] PWEF shall be painted a non-reflective, flat color such as white, off-white, or gray unless required to be colored differently by FAA or BOA regulations.
 - [2] PWEF shall not be artificially lighted, except to the extent required by the FAA, BOA or other applicable authority. If lighting is required, the lighting alternatives and design chosen shall seek to minimize the disturbance to the surrounding views.
 - [3] Wind turbines shall not display advertising, except for identification of the manufacturer of the system, facility owner and operator.
 - [4] All on-site utility, transmission lines, and cables shall be placed underground unless otherwise approved by the Board of Commissioners. The conditional use site plan and land development plan shall clearly depict where all underground and above-ground utility lines are proposed.
 - [5] No PWEF shall be installed at any location that would substantially detract from or block the view of the major portion of a recognized scenic vista, as viewed from any public road right-of-way or publicly-accessible parkland or open space within Pocono Township.
 - [6] Accessory structures and equipment associated with PWEF shall be screened from any adjacent property that is residentially zoned or used for residential purposes. The screen shall consist of plant materials which provide a permanent visual screen.
 - (d) Warnings and safety measures.
 - [1] A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.
 - [2] All access doors to wind turbines, electrical equipment, outbuildings and

appurtenances shall be locked or fenced, as appropriate, to prevent entry by non-authorized persons.

- [3] Wind turbines shall not be climbable up to 15 feet above ground surface or the climbing apparatus shall be fully contained and locked within the tower structure.
- [4] Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of ten feet from the ground.
- [5] The potential ice throw or ice shedding for a PWEF shall not cross the property line of the lot on which the PWEF is located nor impinge on any right-of-way or overhead utility line.
- [6] The applicant shall provide a copy of the project narrative and site plan to local emergency services, including the Pocono Township Fire Department.
- [7] The facility owner and/or operator shall abide by all applicable local, state and federal fire code and emergency guidelines. Upon request the applicant, facility owner and/or operator shall cooperate with emergency services to develop and coordinate implementation of an emergency response plan for the PWEF.

(e) Height

- [1] The maximum height of a PWEF wind turbine tower and structure, including all moving and rotating parts, shall not exceed 200 feet, except as may be imposed by FAA or BOA regulations. The height shall be measured from the average finished grade at the perimeter of the base of the wind turbine tower to the highest vertical point of the rotor blade in its highest vertical position.
- [2] The maximum height of accessory buildings, structures and related equipment to the PWEF shall comply with the underlying zoning district in which the PWEF is located.

(f) Setbacks.

- [1] Wind turbines shall be set back from the nearest property line a distance of not less than two times (or 1.1 or 1.25 times?) its total height or the normal setback requirements for the zoning district, whichever is greater. If the nearest property line abuts a non-participating parcel, the minimum setback shall be 1,000 feet. The setback distance shall be measured to the center of the wind turbine base.
- [2] Wind Turbines shall be set back from the nearest occupied building on a non-participating landowner's property not less than five times (or 2500 feet?) its total height measured from the center of the wind turbine base to the nearest point on the foundation of the occupied building.
- [3] Wind Turbines shall be set back from the nearest occupied building on a participating landowner's property not less than 1.1 times (or 1.5 times?) its total height measured from the center of the wind turbine base to the nearest point of foundation of the occupied building. Any operator/occupied building

What should the setback distances be?

used in connection with the development are exempt from this distance limit.

- [4] All wind turbines shall be set back from the nearest public road a distance of not less than 1.25 times (or 2 times or 1000 ft?) the turbine height, as measured from the right-of-way line of the nearest public road to the center of the wind turbine base.
 - [5] Wind turbines shall be set back from above-ground electric power lines, public telephone lines and television cable lines a distance of no less than 2.0 times its total height. The setback distance shall be measured from the center of the wind turbine generator base to the nearest point of such lines.
 - [6] Wind turbines shall be set back at least 2,000 feet from Important Bird Areas as identified by Audubon Pennsylvania.
 - [7] Accessory buildings, structures, and related equipment to the PWEF shall comply with the accessory building setback requirements of the underlying zoning district in which the PWEF is located.
- (g) Use of public roads.
- [1] The Applicant shall identify all state and local public roads to be used within the Township to transport equipment and parts for construction, operation, or maintenance of the PWEF.
 - [2] The Township Engineer or a qualified third-party engineer hired by the Township and paid for by the applicant shall document road conditions prior to construction. The engineer shall document road conditions again thirty (30) days after construction is complete or as soon thereafter as weather permits.
 - [3] The Township may bond the road in compliance with state regulations.
 - [4] Any road damage caused by the Applicant or its contractors shall be promptly repaired to the Township's satisfaction at the Applicant's expense.
 - [5] The applicant shall demonstrate that it has appropriate financial assurance to ensure the prompt repair of damaged roads.
 - [6] Every effort shall be made to use existing roads and logging roads. New deforestation and forest fragmentation shall be kept to a minimum.
- (h) Access roads and parking areas within the PWEF shall be compacted stone and/or of a paved material, of depth and width satisfactory to the Township Engineer and approved by the Board of Commissioners.
- (i) Noise.
- [1] Equipment selected for use as a PWEF shall incorporate the latest technology for producing low ambient noise levels. Audible sound from a PWEF shall not exceed 55dBA, as measured at the adjoining non-participating landowner's property line, except that the noise limit may be exceeded during short-term events such as utility outages and/or storms.
 - [2] Methods for measuring and reporting acoustic emissions from PWEF shall be

equal to or exceed the minimum standards for precision described in American Wind Energy Association (A WEA) Standard 2.1 - 1989 titled Procedures for the Measurement and Reporting of Acoustic Emissions from Wind Turbine Generation Systems Volume I: First Tier, as amended.

- (j) Shadow flicker.
 - [1] A PWEF shall not cause shadow flicker on any occupied building on a non-participating landowner's property.
 - [2] A PWEF shall be designed in such a manner as to minimize shadow flicker on any roadway.
 - [3] The facility owner and/or operator shall conduct, at the applicant's expense, a modeling study demonstrating that shadow flicker shall not occur on any occupied building on a non-participating property.
- (k) A wind turbine shall not cause vibrations through the ground which are perceptible beyond the property line of the parcel on which it is located.
- (l) The facility owner and/or operator shall ensure that the design and operation of any PWEF avoids disruption or loss of radio, telephone, television, cell, Internet or similar signals, and shall mitigate any harm caused thereby.
- (m) The applicant shall provide a proposed foundation design and analysis of soil conditions by a professional engineer.
- (n) A PWEF owner shall maintain a current general liability policy covering bodily injury and property damage with limits of at least \$1 million per occurrence and \$1 million in the aggregate. A certificate of insurance shall be made available to the Township upon request.
- (o) The Township shall be notified in writing within 30 days of a change in: (1) PWEF ownership, (2) PWEF operator and/or (3) owner of land upon which the PWEF is located, and the Township shall be provided with contact name(s), address(es), phone number(s), email addresses(es), and emergency contact information. The PWEF owner and/or operator shall maintain a phone number and email address, and shall identify a person responsible for the Township to contact with inquiries and complaints throughout the life of the project and shall provide this number and name to the Township.
- (p) The PWEF shall be designed and constructed so that ground leveling is limited to those areas needed for installation of PWEF land development improvements and related equipment so that the natural ground contour is preserved to the greatest extent practical. Such earth disturbances in conjunction with a site alteration or land development shall meet the applicable sections of this chapter, the Subdivision and Land Development Ordinance, and Stormwater Management Ordinance, as may be amended.
- (q) Woodlands and other vegetation shall be preserved to the maximum extent possible. Woodland and vegetation protection and replacement shall be in accordance with the Subdivision and Land Development Ordinance.

- (r) A PWEF shall not be constructed until all applicable building and zoning permits have been issued, all approvals have been secured and security has been provided for the installation of PWEF land development improvements and decommissioning. Before any construction can commence on any PWEF, the property owner must acknowledge that they are the responsible party for owning and maintaining the facility. Prior to issuance of a certificate of occupancy and operation of the PWEF, the PWEF owner and/or operator shall provide the Township with copies all applicable regulatory permits and approvals to operate the PWEF.
- (s) If a PWEF or any of its components are deemed to be a public safety hazard by a Code Enforcement Officer, Building Code Official, Township Engineer or consultant, or state or federal agency, the PWEF owner and/or operator, after written notice by any of the entities stated above, shall be responsible for making immediate repairs or removal of the condition causing such hazard. If the PWEF owner or operator fails to make immediate repairs or remove said conditions, Pocono Township shall have the option to pursue reasonable hazard mitigation measures at the PWEF owner's expense without further notice to the PWEF owner or operator.
- (t) An annual inspection report prepared by an independent professional engineer licensed in the Commonwealth of Pennsylvania shall be submitted to the Township not later than 30 days following each anniversary of the date on which the PWEF commenced operation. The inspection report shall certify the structure soundness, proper operation of the facility, consistency with the conditional use decision conditions, and consistency with the approved land development plan. The requirement to submit the annual report shall be such that it shall be required even if not specifically included in or as part of a conditional use decision.
- (u) Decommissioning of a PWEF or any of its individual wind turbines shall include the following, without limitation:
 - [1] The PWEF owner and/or operator shall execute a Decommissioning Agreement, to be approved by the Township pending the review of the Township Solicitor, before the final plan is released by the Board of Supervisors and filed on record. Said agreement shall contain all terms and conditions for decommissioning requirements.
 - [2] If a PWEF or any of its individual wind turbines have not been in operation for a period of six consecutive months, the PWEF owner or operator shall notify the Township in writing with the reason(s) for inoperability and their intentions to re-establish operations or plans for decommissioning. The PWEF owner or operator shall notify the Township immediately upon cessation or abandonment of the operation. The PWEF or one or more of its individual wind turbines shall be presumed to be discontinued or abandoned if no electricity is generated by such system for a period of 12 continuous months.
 - [3] The PWEF owner and/or operator shall, at its expense, have six months from cessation or abandonment in which to dismantle and remove the PWEF and individual wind turbines, including all related equipment or appurtenances related thereto, including, but not limited to, buildings, cabling, electrical components, roads, foundations and other associated facilities from the

property, and shall re-vegetate disturbed earth back to its predevelopment condition in accordance with subsection (7), below.

- [4] **Engineer Decommissioning Costs.** An independent and certified Pennsylvania professional engineer shall be retained by the PWEF owner or operator to estimate the total cost of decommissioning without regard to salvage value of the equipment. Said estimates shall be submitted to the Township after the first year of issuance of a certificate of occupancy and every 5th year thereafter.
- [5] **Decommissioning Financial Security.** The PWEF owner or operator, prior to the issuance of a zoning permit, shall provide financial security with the Township as payee in an amount approved by the Board of Commissioners, from a company and in a form and content acceptable to the Board of Commissioners, to insure decommissioning and re-vegetation as set forth herein. The security shall remain in place for as long as the PWEF exist at the site and until restoration of the site is satisfactorily completed. The PWEF owner or operator shall be responsible to have the financial security certificate holder describe the status of the bond or letter of credit in an annual report submitted to the Township. The financial security shall not be subject to revocation, reduction or termination unless and until approved by the Board of Commissioners based upon the Township Engineer's and Solicitor's recommendation that decommissioning and re-vegetation have been satisfactorily completed.
- [6] **Landowner Responsibility.** If the PWEF owner or operator fails to complete decommissioning and re-vegetation within the time period stated herein, then decommissioning and re-vegetation in accordance with this chapter shall become the responsibility of the landowner, and such landowner shall have six months to complete decommissioning and re-vegetation.
- [7] **Township Intervention.** If neither the PWEF owner or operator, nor the landowner completes decommissioning and re-vegetation within the prescribed periods, then the Township may take such measures as necessary to complete decommissioning and re-vegetation. The submission of evidence of a participating landowner agreement to the Township shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors and assigns that the Township may take such action as necessary to implement the decommissioning and re-vegetation plan.
- [8] **Decommissioning conditions of the zoning permit shall include, but not be limited to:**
 - [a] If the PWEF owner or operator ceases operation of the facility or any of its individual wind turbines, or begins, but does not complete, construction of the project or any of its individual wind turbines, the PWEF owner and/or operator shall restore the site to its condition prior to any disturbance related to the PWEF facility or individual wind turbines. The site shall be restored to a useful, non-hazardous condition without significant delay, including but not limited to the following:
 - [i] Removal of aboveground and underground equipment, structures and

foundations to a depth of at least three feet below grade. Underground equipment, structures and foundations need not be removed if they are at least three feet below grade and do not constitute a hazard or interfere with agricultural use or other resource uses of the land.

- [ii] Restoration of the surface grade and soil after removal of aboveground structures and equipment.
 - [iii] Removal of graveled areas and access roads.
 - [iv] Revegetation of restored soil areas with native seed mixes and native plant species suitable to the area.
 - [v] For any part of the PWEF project on leased property, the plan may incorporate agreements with the landowner regarding leaving access roads, fences, gates or buildings in place or regarding restoration of agricultural crops or forest resource land.
 - [vi] The plan shall provide for the protection of public health and safety and for protection of the environment and natural resources during site restoration.
 - [vii] The plan shall include a schedule for completion of site restoration work.
- w. The PWEF owner and/or operator shall repair, maintain and replace the facility and related equipment during the term of the facility's use in a manner consistent with industry standards as needed to keep the facility safe and in good repair and operating condition.
- x. The following conditions, which may be amended by the Board of Commissioners, shall apply to a PWEF conditional use approval in addition to any other conditions imposed by the Board of Commissioners in their conditional use decision:
- [1] The PWEF applicant, owner and/or operator shall resolve any outstanding comments of the Township Engineer's conditional use and/or land development review letters to the satisfaction of the Board of Commissioners prior to issuance of a certificate of occupancy and operation of the PWEF.
 - [2] The PWEF owner and/or operator shall be responsible for repairs to improvements within Township rights-of-way caused by vehicular traffic generated to construct or decommission the PWEF and shall provide adequate security as determined by the Board of Commissioners for such improvement repairs.
 - [3] The PWEF applicant, owner and/or operator shall install a Knox-type box on all access gates for emergency access by the Pocono Township Volunteer Fire Department and other emergency responders.
 - [4] The PWEF applicant, owner and/or operator shall prepare a "schedule of maintenance" for review and recommendation by the Township Engineer and approval by the Board of Commissioners prior to issuance of a certificate of

occupancy and operation of the PWEF. The "schedule of maintenance" shall include, but not be limited to, a detailed description of daily, weekly, monthly, annual and seasonal inspection and maintenance applicable to vegetation, stormwater facilities, PWEF related equipment and other improvements on the PWEF site.

- [5] Delivery of equipment to the PWEF site and construction activities on the PWEF site shall be limited to 7:00 a.m. through 7:00 p.m. on Mondays through Saturdays, except for emergency repairs which may occur as needed. There shall be no deliveries of equipment and construction activities on the PWEF site on Sundays and holidays, except for emergency repairs which may occur as needed. Deliveries and removal of equipment and truck traffic to and from the PWEF site during construction, operation and/or decommissioning shall be limited to the route(s), days and times approved by the Board of Commissioners.
- [6] PWEF related equipment and parts thereto not in active operation on the PWEF site shall be stored in an enclosed building and/or concealed within solid fencing no closer than the applicable setback for accessory buildings and/or structures in the underlying zoning district.
- [7] A failure to comply with any condition or requirement herein set forth shall constitute a violation of the said condition or requirement. Each day's continuation of a violation shall constitute a separate violation. All such violations shall be subject to the penalties set forth in §470-127.

§ 470-31. Accessory Uses or Structures.

- A. All accessory buildings shall be required to adhere to the minimum yard dimensions established for the district in which the building is located, **except as specified elsewhere in this Section.**
- B. Every pool must have means of providing a safe, secure, nonentry means of safeguard usually comprised of locked gates and fencing. All pools shall be entirely enclosed with a permanent, continuous fence not less than four feet in height unless the pool is an aboveground pool, all sides of which are at least four feet above the lowest ground level. All pools shall be required to adhere to the minimum yard dimensions established for the district in which the pool is located.
- C. Private tennis courts must adhere to the minimum yard dimensions established for the district in which the courts are located.

D. Accessory solar energy facilities (ASEF). Everything hereafter is new (proposed)

Checking to see if this limit is appropriate

- (1) A solar energy system shall be permitted as an accessory use in all zoning districts, subject to the provisions set forth herein, as well as all other applicable state or federal regulations. A system is considered an accessory solar energy facility only if it supplies electrical or thermal power primarily for on-site use. **The system design capacity shall be no greater than 125% of normal peak on-site energy demand.** The energy generated in excess of the requirements of the principal and/or accessory use of the property may be purchased or acquired by a public utility in accordance with all applicable laws and government regulations.
- (2) An accessory solar energy facility (ASEF) may be roof-mounted or ground-mounted subject to the applicable criteria in § 470-31D(10), § 470-31D(11) or § 470-31D(12), as applicable.
- (3) An ASEF installed prior to enactment of this Section is not required to comply with the terms of this Section. However, any physical modification that materially alters the size, type and number of solar panels or other equipment shall require approval under this Ordinance and meet the requirements of the applicable building code(s).
- (4) Design and permitting. The design and installation of the ASEF shall conform to applicable industry standards, such as those of the American National Standards Institute (ANSI), Underwriters Laboratories, the American Society for Testing and Materials (ASTM), or other similar certifying organizations, and shall comply with the Township Building Code and with all other applicable fire and life safety requirements. Township permits shall be required. Applicable manufacturer specifications shall be submitted as part of the application for any permit.
- (5) Grid connection. The applicant for an ASEF connected to the utility grid shall provide to the Township written authorization from the local utility company acknowledging and approving such connection.
- (6) Radiation and glare. Solar collectors shall be placed such that concentrated solar radiation and reflective glare shall not be directed onto nearby properties or streets, or interfere with aviation or airport flight patterns. Acknowledgement of same from the Federal Aviation Administration, Pennsylvania Bureau of Aviation, or other agency or entity, may be necessary at the discretion of the Board of Supervisors.

- (7) Solar access easements. The ASEF shall be located to ensure solar access without reliance on adjacent properties. Where necessary to ensure that solar access to an ASEF shall not be obstructed over time by permissible uses or activities on any adjacent property (e.g., by planting or growth of vegetation, new construction, etc.), it shall be the responsibility of the owner of the ASEF to obtain appropriate solar access easement(s) from neighboring property owner(s) and to notify the Township upon the recording of any such easement(s). All solar access easements shall be recorded in the office of the Chester County Recorder of Deeds.
- (8) Upon completion of installation, the ASEF shall be maintained in good working order in accordance with standards of the Township codes under which it was constructed. Failure of the property owner to maintain the ASEF in good working order is grounds for appropriate enforcement actions by the Township in accordance with applicable ordinances.
- (9) An ASEF, including associated equipment, shall be removed at the owner's sole expense within 12 months of the date when the use has been discontinued or abandoned by the system owner and/or operator, or upon termination of the useful life of the system. The ASEF shall be presumed to be discontinued or abandoned if no electricity is generated by the system for a period of 12 continuous months. The ASEF owner shall, at the request of the Township, provide information concerning the amount of energy generated by the ASEF in the last 12 months.
- (10) Roof-mounted ASEF shall comply with the following standards:
 - (a) The roof-mounted ASEF may be installed on a principal or accessory building.
 - (b) The solar panels shall not exceed the building height or accessory building height limitation of the applicable zoning district by more than three feet above the roof areas to which they are mounted.
 - (c) No portion of an ASEF attached to a pitched roof shall extend above the ridgeline of the pitched roof.
 - (d) No portion of an ASEF shall extend beyond the edges of the roof.
 - (e) No equipment associated with the roof-mounted ASEF shall be permitted in the front yard; however, equipment affixed to the roof of the principal or accessory structure and visible from the front yard shall be permitted.
 - (f) An effort shall be made to make the wiring and hardware blend in with the roof and building façade.
- (11) Ground-mounted ASEF shall comply with the following standards:
 - (a) Ground-mounted ASEF and all associated mechanical equipment shall meet the setback requirements for an accessory use for the zoning district in which they are located, and shall not be located within any required front yard setback, along any street frontage, or within any required easement, right-of-way, or stormwater conveyance system.
 - (b) Ground-mounted ASEF shall not exceed a height of 15 feet.

- (c) All exterior electrical and/or plumbing lines from the solar energy system to any building or other structure shall be located underground.
 - (d) Ground-mounted ASEF shall be screened from view from adjacent properties and from adjacent street(s) upon which the property has frontage. Such screening shall screen the supporting infrastructure for the panels and control equipment; the screening shall not be required to screen the solar panels, as reception of sunlight is essential for proper operation thereof.
 - (e) For the purposes of this Section, the ground-mounted ASEF, including all at-grade and above-grade solar panels and associated equipment, buildings, or structures shall be considered impervious surface and subject to the maximum impervious coverage requirements of the zoning district in which it is located, unless the applicant can demonstrate to the Township Engineer, by evidence, that stormwater will infiltrate into the ground beneath the solar collection system at a rate equal to that of the infiltration prior to placement of the system. The area of a ground-mounted ASEF shall be calculated as the dimension of the footprint of the cumulative solar panels plus the area of any associated buildings, equipment, or structures.
- (12) Ground-mounted ASEF exceeding 500 square-feet in surface area shall be subject to conditional use approval and shall comply with the following conditions, in addition to the standards set forth in § 470-31D above:
- (a) The ground-mounted ASEF shall be setback a minimum of 100 feet from property lines and road rights-of-way unless the Board of Supervisors determines that the existing topography and/or landscaping provide an adequate barrier.
 - (b) Native grasses and/or other native vegetation satisfactory to the Township shall be planted and maintained below and between ground-mounted solar panels, modules and/or arrays, unless other ground cover is required by a state or federal agency or recommended by the Township Engineer, consultant, or licensed landscape architect and approved by the Board of Supervisors.

E. Accessory wind energy facilities (AWEF).

- (1) A wind energy facility shall be permitted as an accessory use in all zoning districts, subject to the provisions set forth herein, as well as all other applicable State or Federal regulations. A system is considered an accessory wind energy facility only if it supplies electrical or thermal power primarily for on-site use. The energy generated in excess of the requirements of the principal and/or accessory use of the property may be purchased or acquired by a public utility in accordance with all applicable laws and government regulations.
- (2) An accessory wind energy facility (AWEF) may be roof-mounted or ground-mounted subject to the applicable criteria in this § 470-31E.
- (3) An AWEF installed prior to enactment of this Section is not required to comply with the terms of this Section. However, any physical modification that materially alters the size, type and number of wind turbines or other equipment shall require approval under this Ordinance and meet the requirements of the applicable building code(s).

- (4) The layout, design, and installation of AWEF shall conform to applicable industry standards, including those of the American National Standards Institute (ANSI), Underwriters Laboratories (UL), Det Norske Veritas, Germanischer Lloyd Wind Energies, the American Society of Testing and Materials (ASTM), or other pertinent certifying organizations and comply with the PA Uniform Construction Code and all applicable building code and fire and safety requirements. The applicant shall submit manufacturer's specifications as part of an application.
- (5) The applicant for an AWEF connected to the utility grid shall provide to the Township written authorization from the local utility company acknowledging and approving such connection.
- (6) Noise.
 - (a) Equipment selected for use as an AWEF shall incorporate the latest technology for producing low ambient noise levels.
 - (b) The sound produced by the AWEF shall not exceed 45dBA as measured at the property line at ground level.
 - (c) Noise limits may be exceeded during short-term events such as utility outages and/or severe windstorms.
- (7) When an accessory building is necessary for storage cells or related mechanical equipment, the accessory building shall comply with the accessory building requirements of the underlying zoning district.
- (8) All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- (9) Clearly visible warning signs concerning falling objects shall be placed within the principal structure yard setbacks and spaced not more than 100 feet apart, to the extent possible, to warn against ice and rotor throws. Signs are to be placed a minimum of three (3) feet from the ground and be a minimum of one (1) square foot, but not exceeding two (2) square feet, in surface area.
- (10) The owner shall post electrical hazard warning signs on or near the AWEF.
- (11) All on-site utility, transmission lines, and cables shall be placed underground.
- (12) The display of advertising is prohibited except for identification of the manufacturer of the system.
- (13) AWEF shall not be lighted except for any lighting required to comply with Federal Aviation Administration (FAA) or Pennsylvania Department of Transportation Bureau of Aviation (BOA) regulations.
- (14) AWEF shall be painted a non-reflective, flat color such as white, off-white, or gray unless required to be colored differently from FAA or BOA regulations.
- (15) AWEF shall have an automatic braking, governing or feathering system to prevent uncontrolled rotation, over speeding and excessive pressure on the tower structure, rotor blades and turbine components.

- (16) AWEF shall not cause shadow flicker on any occupied building on a non-participating landowner's property.
- (17) No part of any AWEF shall be located within or above the required setbacks of any lot, extend over parking areas, access drives, driveways or sidewalks.
- (18) The owner of the AWEF shall provide evidence that the owner's insurance policy has been endorsed to cover an appropriate level of damage or injury that might result from the installation and operation of the wind energy system.
- (19) The potential ice throw or ice shedding for an AWEF shall not cross the property line of the lot on which the AWEF is located nor impinge on any right-of-way or overhead utility line.
- (20) The owner of the AWEF shall ensure that the design and operation of the AWEF avoid disruption or loss of radio, telephone, television, cell, Internet or similar signals, and shall mitigate any harm caused thereby.
- (21) Permit requirements.
 - (a) Zoning/building permit applications for AWEF shall be accompanied by standard drawings of the wind turbine structure and stamped engineered drawings of the tower, base, footings, and/or foundation as provided by the manufacturer. Permits shall show the location of the AWEF on the lot, lot lines, rights of way, adjoining occupied buildings, and above ground utility lines located on the lot. Permits must be kept on the premises where the AWEF is constructed.
 - (b) The zoning/building permit shall be revoked if the AWEF, whether new or pre-existing, is moved or otherwise altered, either intentionally or by natural forces, in a manner which causes the AWEF not to be in conformity with this Ordinance.
 - (c) For standard soil conditions (not including gravel, sand, or muck), foundations developed by the wind turbine manufacturer shall be acceptable for AWEF installations of 20kW or less and will not require project-specific soils studies. Applicants proposing projects involving substandard soil conditions or installations of AWEF greater than 20kW may be required by the Zoning Officer to submit detailed soil studies.
 - (d) The A WEF must be properly maintained and be kept free from all hazards, including but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare. In the event of a violation of any of the foregoing provisions, the Zoning Officer shall give written notice specifying the violation to the owner of the AWEF to conform or to remove the AWEF.
- (22) An AWEF, including associated equipment, shall be removed and properly disposed of at the owner's sole expense within 12 months of the date when the use has been discontinued or abandoned by the system owner and/or operator, or upon termination of the useful life of the system. The system shall be presumed to be discontinued or abandoned if no electricity is generated by the system for a period of 12 continuous months. The AWEF owner shall, at the request of the Township, provide information

concerning the amount of energy generated by the AWEF in the last 12 months.

(23) Roof-mounted AWEF shall comply with the following:

- (a) Power generated by roof-mounted AWEF shall not exceed 1,000 watts of maximum output capacity. There shall be no commercial use of a roof-mounted AWEF for generation of energy.
- (b) The applicant shall provide certification from a Pennsylvania registered professional engineer that the building is structurally sufficient to withstand the weight of the wind turbine being installed as well as the projected wind load to be placed upon the wind turbine.
- (c) The roof-mounted wind turbine shall be mounted in accordance with the manufacturer's installation requirements with mounting bracket materials being a minimum thickness of ¼ inch steel. The mounting equipment shall be certified by the wind turbine's manufacturer that the mounting equipment is sufficient to withstand the weight of the wind turbine being installed as well as the projected wind load to be placed upon the wind turbine.
- (d) Roof-mounted AWEF shall not exceed a height of 8 feet measured from the center of the wind turbine's nose cone to the roofline on which it is mounted.
- (e) Roof-mounted wind turbine blades shall have a minimum clearance of three (3) feet between the tip of the blades and roofline as well as other obstructions including but not limited to antennae, satellite dishes, vent stacks, and chimneys.
- (f) Roof-mounted wind turbines shall be set back from any adjacent occupied building a distance of not less than 30 feet.
- (g) All exterior wiring and hardware shall blend in with the roof and building façade.

(24) Ground-mounted AWEF shall be comply with the following:

- (a) Power generated by ground-mounted AWEF equipment shall not exceed 50 kilowatts of maximum output capacity for residential uses. There shall be no off-site primary use of the AWEF for generation of energy.
- (b) No ground-mounted AWEF shall be located in a front yard.
- (c) Ground-mounted AWEF shall not exceed a height of fifty (50) feet. The height of a ground-mounted AWEF shall be measured from the average approved finished grade at the perimeter of the base of the ground-mounted AWEF to the highest vertical point of the rotor at its maximum vertical position.
- (d) For a ground-mounted AWEF, only a single pole or monopole structure shall be permitted. The pole shall be self-supporting upon its foundation without the use of guy wires or other supports and shall be certified by the wind turbine's manufacturer that the pole is sufficient to withstand the weight of the wind turbine being installed as well as the projected wind load to be placed upon the wind turbine.
- (e) The minimum height of the lowest position of the ground-mounted wind turbine rotor shall be 15 feet above the surface of the ground.

- (f) All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
- (g) To prevent climbing, a ladder or steps affixed to a ground-mounted wind turbine shall not be provided any lower than 15 feet above its base.
- (h) Setbacks for ground-mounted AWEF:
 - [1] AWEF shall be set back from property lines, occupied buildings, above-ground utility lines, road and/or railroad rights-of-way by a distance equal to no less than 2 times the total height.
 - [2] AWEF shall be allowed closer to a property line than the prescribed setbacks if the abutting property owner(s) grants written permission in the form of a signed easement and the installation poses no interference with public utility lines, public roads and rail right-of ways.
- (h) The number of ground mounted AWEF permitted on a lot shall be based upon lot size and follow the schedule below:

Lot Size	Maximum Number of Ground-Mounted AWEF
<1 acre to 4.99 acres	1
5+ acres to <10 acres	2
10+ acres	3

F. Geothermal energy systems.

- (1) A closed-loop geothermal energy system shall be permitted in all zoning districts as an accessory use, where the energy supplied is solely for the use of principal and/or accessory uses permitted on the subject property.
- (2) Open-loop geothermal energy systems are prohibited.
- (3) It shall be unlawful to install a new geothermal well or modify an existing geothermal well without a valid permit.
- (4) A site plan, prepared, signed, and sealed by a qualified professional licensed in the Commonwealth of Pennsylvania, shall be submitted, which identifies property lines, lot area, location of existing natural and manmade features, location of the proposed closed-loop geothermal system, bore holes, ownership information for adjoining properties, and setback measurements from property lines, street lines, and occupied buildings.
- (5) The geothermal system must be installed, maintained, and decommissioned in standards conforming to International Ground Source Heat Pump Association (IGSHPA) Closed-Loop/Geothermal Heat Pump Systems Design and Installation Standards, as same may be amended and updated from time to time, and as per the manufacturer’s specifications, as well as all zoning, building code, and utility requirements. Applicable manufacturer specifications shall be submitted as part of the application for any permit.
- (6) Only a Pennsylvania Department of Environmental Protection licensed well driller, or

an IGSHPA-accredited geothermal system installer, shall conduct the drilling of a geothermal well. In all cases, the well drilling rig must also be approved by Pennsylvania Department of Environmental Protection.

- (7) Geothermal energy systems may be located on a lot with a permitted use provided that all structural components comply with the accessory setback requirements and lot coverage requirements of the zoning district on which it is located.
- (8) Minimum isolation (setback) distance. Wells and boreholes regulated by this ordinance shall be located using the minimum isolation (setback) distances to existing or potential sources of pollution listed in the table below. For closed-loop geothermal wells and boreholes, which due to infeasibility, cannot conform to the requirements in said table (on the following page), an appeal to the pertinent municipal official can be made detailing the infeasibility and the proposed location. Upon review, the municipal official may reduce the required setback distances.

Setback From	Borehole and Geothermal Supply and Geothermal Return Well (feet)
Delineated floodplains, wetlands, lakes, ponds, or other surface waters	In accordance with Chapter 205 Floodplain Management, and Article XI Natural Resource Protection
Storm drains, retention basins, stabilization ponds, or stormwater management facilities	at least 10 feet
Preparation area or storage area of hazardous spray materials, fertilizers, chemicals, or salt piles	300 feet 100-150 feet (if borehole is cased and grouted inside and out)
Gravity sewer lines and drains carrying domestic sewage or industrial waste	5-15 feet or according to easement
Existing water and forced sewer buried utilities and/or utility trenches	at least 15 feet or outside easement
Septic tanks, aerobic tanks, or holding tanks	at least 100 feet
Subsurface sewage disposal systems, elevated sand mounds, or other sewage disposal fields	100 feet
Sewage seepage pits and cesspools	at least 100 feet
Farm silos, barnyards, privies, and fuel tanks	at least 25 feet
Spray irrigation sites, sewage sludge, and septage disposal sites	at least 100 feet
Dedicated public right-of-way and property lines	at least 25 feet
Building foundations (except for buildings enclosing water wells and/or water well pumps and any other source of pollution as approved)	at least 25 feet
Identified NPL Site (Superfund) plume area	at least 300 feet
Any other source or potential source of pollution	at least 300 feet

- (9) Closed-loop geothermal boreholes shall be located, drilled, and finished in a manner that will protect the borehole structure from damage from surface activities or other natural occurrences so that the quality of the local groundwater cannot be affected.
- (10) The minimum required backfilling material for boreholes is bentonite. Bentonite grout shall be pure, with at least 20 percent solids by weight when mixed with water. Hydration of the bentonite must be delayed until the bentonite has been placed down the well. It is recommended that the vertical boreholes are grouted from the bottom of the well to the top using an appropriate grout with thermal transfer properties. If the borehole penetrates bedrock, it must be grouted from a depth of 15 feet into the bedrock to the top of the borehole.
- (11) A nonparticipating landowner shall not intentionally block, interfere, or disrupt the functional operation of a geothermal system. If such action or event should occur, the matter shall be resolved as a civil dispute between the landowners and West Caln Township shall not be held responsible.
- (12) All applicants for geothermal energy systems located in areas underlain by karst or carbonate geology shall acknowledge, and by virtue of the application for a permit for installation of a geothermal energy system, shall agree to the following
 - (a) In all situations when boreholes or trenches are (or have been) excavated, or natural conditions have otherwise been disturbed (such as through the withdrawal of groundwater in an open-loop system), the likelihood of sinkhole formation increases;
 - (b) The applicant (or subsequent owner) accepts all responsibility and liability for any sinkholes that do form in association with the applicant's geothermal energy system; and
 - (c) The applicant (or subsequent owner) agrees to repair any and all sinkholes that form in association with the geothermal energy system.
- (13) If the geothermal energy system is ever abandoned or enters into a state of disrepair, it shall be the responsibility of the property owner to remove, permanently seal, or properly maintain the geothermal energy system within 12 months from the date the system enters such a state. Any earth disturbance as a result of the removal or permanent sealing of the geothermal energy system shall be graded, reseeded and revegetated with native species to its pre-disturbance condition.

G. Outdoor wood-fired boilers.

- (1) Outdoor wood-fired boilers (OWB) shall be permitted as an accessory use in all zoning districts, where the energy supplied is solely for the use of principal and/or accessory uses permitted on the subject property.
- (2) An OWB installed prior to enactment of this Section is not required to comply with the terms of this Section. However, any physical modification that materially alters the size, type and number of OWBs or other associated equipment shall require approval under this Ordinance and meet all applicable local, state, and federal codes and regulations.
- (3) OWBs shall be certified by the United States Environmental Protection Agency (EPA)

and shall comply with EPA New Source Performance Standards (NSPS) as meeting the Step 2 emission rate of 0.10 pounds per million Btu heat output.

- (4) OWBs shall be located on the property in compliance with the manufacturer's recommendations with respect to clearance for combustible materials. Due consideration shall also be given to prevailing wind directions when locating any furnace. In no case shall an OWB be located within any required front yard setback, along any street frontage, or within any required easement, right-of-way, or stormwater conveyance system.
- (5) OWBs shall be setback a minimum of 50 feet from the nearest property line, except that where a greater setback is required by the applicable zoning district, such greater setback shall apply.
- (6) Wood-fired boilers shall have a permanently attached smokestack installed according to the manufacturer's specifications that extends a minimum of 15 feet above the ground, measured as the average finished grade of the site upon which the OWB is located, and that also extends at least 2 feet above the highest peak of any residence located less than 150 feet from the OWB.
- (7) OWBs shall only burn clean wood, wood pellets made from clean wood, home heating oil, natural gas or propane fuels, or other fuel approved in writing by the PA DEP.
- (8) The following fuels shall be specifically prohibited:
 - (a) Any material not listed in Subsection (7), above
 - (b) Wood that has been painted, varnished or coated with similar material
 - (c) Pressure-treated wood or pallets or pressure-treated lumber
 - (d) Residential or commercial garbage
 - (e) Lawn clippings or yard waste
 - (f) Materials containing rubber, including tires
 - (g) Materials containing plastic
 - (h) Waste petroleum products, paints or paint thinners, or asphalt products
 - (i) Materials containing asbestos
 - (j) Construction or demolition debris
 - (k) Paper products, cardboard, plywood, or particleboard. The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, sawdust, wax, and similar substances for the purpose of starting a fire in a wood heater.
 - (l) Railroad ties
 - (m) Manure or animal remains
 - (n) Salt water driftwood or other previously salt water saturated materials

- (o) Unseasoned wood
- (p) Any materials that are not included in the warranty and owner's manual for the subject wood heater
- (q) Any materials that were not included in the certification tests for the subject wood heater

H. Emerging energy systems.

- (1) Emerging energy systems, other than those specifically defined in this Chapter, shall be permitted by special exception as an accessory use provided that such systems are located on a lot with a permitted use in accordance with the applicable provisions of this Chapter.
- (2) Emerging energy systems may be located on or attached to an occupied building provided that the structural components of the emerging energy systems do not exceed the permitted building height requirements of the zoning district in which it is located.
- (3) All components of the emerging energy systems shall comply with the building setback requirements and lot coverage requirements of the zoning district in which it is located.
- (4) A site plan, prepared, signed, and sealed by a qualified professional licensed in the Commonwealth of Pennsylvania, shall be submitted, which identifies property lines, lot area, location of existing natural and manmade features, location of the proposed emerging energy system, ownership information for adjoining properties, and setback measurements from property lines, street lines, and occupied buildings.
- (5) Emerging energy systems may be located on a lot provided that it is located, designed, and installed considering the health, safety, and general welfare of the adjacent property owners. The emerging energy system and associated building, structures, and equipment shall be secured and clearly visible warning signs concerning voltage and other potential hazards shall be placed as needed. As part of the special exception application, the Zoning Hearing Board may attach reasonable conditions and safeguards.