

**PLANNING BOARD  
TOWN AND VILLAGE OF ARCADE  
17 Church Street, Arcade, New York 14009  
Village Office 585 492-1111  
Town Office 585 492-4685**

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At a meeting of the Planning Board of the Town and Village of Arcade held on Wednesday, January 9, 2019, at 7:00 P.M. in the Village Boardroom, 17 Church Street, Arcade, New York:

**MEMBERS PRESENT:** Paul Bijhouwer, Andy Schnitzler, Rich Kosmerl, Aaron Felber

**MEMBERS ABSENT:** Don Suttell,

**OTHERS PRESENT:** Michelle Karpinski, Don Roberts, Valessa Souter-Kline, Eric Miller

The meeting was called to order at 7:08 P.M. by Chairman Bijhouwer

**APPROVAL OF MINUTES:**

**MOTION** by Rich Kosmerl, seconded Andy Schnitzler and unanimously carried, to accept the minutes of December 12, 2018.

**MOTION** by Andy Schnitzler, seconded Aaron Felber while Paul Bijhouwer abstained and unanimously carried, to accept the minutes of March 14, 2018.

**REVIEW SECTION 819-REGULATION OF COMMERCIAL & INDUSTRIAL-ENERGY  
PRODUCTION/CONVERSION SYSTEMS (CEPCS)**

Rich Kosmerl attended the Arcade Town Board meeting where Invenergy was present and identified issues in our current Town Zoning for Energy Production/Conversion Systems (CEPCS). The Town Board would like to cite they are part of the wind mills, the Town Chairman asked that we review their comments and make appropriate amendments

A brief overview of the Alleghany/Catt Wind Mill Project was given by Valessa Souter-Kline, who is a developer for Invenergy. Development for this project started in 2015 and the full application was just submitted in December for the Article 10. A map of the proposed layout of the wind turbines was presented to the board. At this point the Town of Arcade will have 14 wind turbines, with host agreements being worked on now. The application will take approximately a year with the State and they hope to have the project up and running by the end of 2020.

Eric Miller for Invenergy went over the proposed changes with the Board. After discussion and proposed changes made the motion was given to send the changes to the Town of Arcade Board.

**MOTION** by Chairman Paul Bijhouwer, seconded by Aaron Felber and unanimously carried, to forward the following proposed recommended changes of Section 819- Zoning Law to Arcade Town Board.

There being no further business brought before the Board, the meeting adjourned at 10:01 P.M. upon **motion** by Rich Kosmerl , seconded by Andy Schnitzler and unanimously carried. The next regular meeting of the Planning Board of the Town and Village of Arcade is scheduled for Wednesday, February 13, 2019, at 7:00 P.M. in the Village Boardroom, 17 Church Street, Arcade, New York.

Respectfully submitted,  
Michelle Karpinski  
Secretary

**To: Town Board of Arcade**  
**From: Planning Board (Holly Almeter)**  
**Date: January 23, 2019**

**Re: Proposed Changes to Section 819**

**Black text is original law and will remain.**

**Blue crossed out text is original which will be deleted.**

**Red text is to be added.**

**There are no changes in or beyond Section 819-1.9**

## **Section 819 – REGULATION OF COMMERCIAL AND INDUSTRIAL ENERGY PRODUCTION/CONVERSION SYSTEMS (CEPCS)**

### **Section 819-1.1 Purpose and Intent**

The purpose of this law is to promote and protect the public health, safety, aesthetics, welfare and property values of the occupants/taxpayers of the Town of Arcade, and to minimize the negative impacts of Commercial Energy Production/Conversion Systems and other Commercial and Industrial projects.

Further, the ordinance provides a regulatory scheme within the jurisdiction of the Town of Arcade for the construction and operation of such projects subject to reasonable restrictions which preserve the public health and safety and are consistent with the Comprehensive Plan of the Town.

### **Section 819-1.2 Findings**

The Town finds that commercial development including all types of energy generation, processing or transport is beneficial to the Town, its residents and is consistent with the general welfare of the area. However, the development of such projects must be done in a manner so as to promote and protect the rights and concerns of all citizens of the Town.

### **Section 819-1.3 Authority**

The Town Board of Arcade enacts this Local Law under the authority granted by:

- A. Article IX of the New York State Constitution Section 2(6) and (10);
- B. New York Statute of Local Government Section 10(1) and (7);
- C. New York Municipal Home Rule Law Section 10(1)(i) and (ii) and Section 10(1)(a), (6), (11), (12) and (14);
- D. New York State Town Law Section 130(1) Building Code, (3) Electrical Code, (5) Fire Prevention, (7) Use of Streets and Highways, (7-a) Location of Driveways, (11) Peace, Good Order and Safety, (15) Promotion of Public Welfare, (15-a) Excavated Lands, (16) Unsafe Buildings, (19) Trespass, and (25) Building Lines;
- E. New York Town Law Section 64 (17-1) Protection of Aesthetic Interest and (23) General Powers.

### **Section 819-1.4 Definitions**

For the purpose of this Local Law, certain terms or words used herein will be interpreted as follows:

**Boring/Borehole:** A penetration of soil and/or rock that is augured, drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed which is generally cylindrical in shape and whose diameter is generally smaller than its depth of penetration.

**Casing:** An impervious durable pipe placed in a well to prevent the walls from caving and to seal off surface drainage or undesirable water, gas or other fluids and prevent their entering the well.

**Closed-Loop Geothermal System:** A type of geothermal heating and/or cooling system that utilizes a pressurized heat exchanger consisting of pipe, a circulating pump, and a water-source heat pump in which the heat transfer fluid is not exposed to the atmosphere. The heat transfer fluid is potable or beneficial reuse water and may have approved antifreeze added.

**Commercial Energy Production/Conversion System (CEPCS):** An energy production system (wind, solar, etc.) that is operated primarily to generate profits by putting energy or materials that can produce energy into an electric grid or other type of commercial energy distribution system (ex. Pipeline). Any such system with a nameplate capacity of more than 100 kilowatts (kW), and/or a total height of more than 425 feet is also considered a commercial system.

A CEPCS is a system which produces energy by means of processing or converting other forms of matter or energy - such as the kinetic energy of the wind, or the organic compounds in manure to methane gas - into electrical, mechanical or any other form of energy. CEPCS's also may involve systems which gather materials which are later converted into energy (ex. coal, natural gas, etc.)

CEPCS's are constructed using equipment that converts and then stores or transfers such energy into usable forms of energy and includes any base, blade, foundation, generator, nacelle, rotor, tower, transformer, turbine, vane, wire, substation, maintenance building, holding vat, generator, transfer pipe or station, battery, wells, etc., as well as all associated control and ancillary support facilities or any other components used in the system. A CEPCS can consist of one or more sets of energy producing systems.

CEPCS do not include small lawn decorations, pond aerators or remaining portions of mechanical water pumping windmills.

Commercial Energy Production/Conversion Systems exclude Residential and Operating Farm Systems as found in Section 817 of this Local Law.

**Commercial and Industrial Projects:** These are commercial projects where energy production or transfer is not the product or process being produced. These types of projects could include manufacturing plants, office buildings, etc.

**Decibel:** A decibel (dB) is a logarithmic unit of measurement of sound pressure level on a scale that corresponds to the human perception of sound and which can be measured by a sound testing device. Units are typically measured in dB (A) and dB(C).

**Electromagnetic Interference (EMI):** The interference to communication, traffic control and weather radar systems due to electromagnetic waves created by electrical systems.

**Geothermal System:** A system that uses a heat pump to extract heat from the earth in heating mode and/or reject heat into the earth in cooling mode. It is also called a geothermal heat pump system, a ground-coupled heat pump system, an earth-source heat pump system, and a GeoExchange system.

**Ground Source Heat Pump:** A geothermal heat pump that uses the earth itself as a heat source and heat sink. It is coupled to the ground by means of a closed-loop heat exchanger installed horizontally or vertically underground.

**Heat Pump:** A mechanical device used for heating and/or cooling which operates by pumping heat from a cooler to a warmer location.

**Commercial Energy Production/Conversion Systems (CEPCS) Maximum Height:** A vertical distance from ground level to the highest elevation from ground of an energy system at its highest point.

**Meteorological Testing Tower (MET):** A tower, either temporary or permanent, utilized for the gathering of weather data including wind velocity, frequency and duration.

**Open-Loop Geothermal System:** A type of geothermal heating and/or cooling system that utilizes a water-supply well and a water pump to deliver ground water to a water-source heat pump. The discharge water from the water-source heat pump may be returned to the subsurface through a recharge well or infiltration bed, or may be discharged into a pond, lake or stream. A spring may also be the source of the ground water supply.

**Participating/Non-Participating Landowners:** Any landowner that allows commercial energy facility energy system siting or use of their property for siting setback is considered a participating landowner. A non-participating landowner does not allow the use of their land for siting commercial energy system energy projects.

**Residential and Operating Farm Energy System (RES):** An energy system that is operated primarily for on-site residential or operating farm use. See Section 817.

**Rotor Diameter:** The largest diameter formed by the blades when assembled on the rotor hub and mounted on the wind energy system.

**Shadow Flicker:** The alternating pattern of light and shade caused by wind tower blades casting a shadow.

**Site Plan Review:** The review of a drawing showing the arrangements, layout and design of the proposed single parcel of land as shown on said plan. Site Plan Review is required on all Special Use Permit applications.

**Special Use Permit:** The term Special Use Permit shall mean an authorization of particular land use which is permitted in a Zoning Law, subject to the requirements, layout and design of the

proposed single parcel of land as shown on said plan. Site Plan Review is required on all Special Use Permit applications.

**Standing-Column Geothermal System:** A type of open-loop geothermal heating and/or cooling system that circulates ground water from a water well through a heat exchanger and returns the discharge water from the water-source heat pump to the same water well that it was pumped from. The water withdrawal and return locations within the water well bore are separated as far as is possible. Some standing-column geothermal systems discharge some of the circulating ground water to enhance their heat transfer.

**Stray Current:** The inappropriate application of current to the ground or earth. For the purpose of this Section, it is the measurable addition of current to ground resulting from improper installation or deterioration of the electrical portion of a wind energy system. The National Electrical Safety Code set the conditions that grounding connection points shall be so arranged that under normal circumstances there will be no objectionable flow of current over the grounding conductor. The National Electrical Safety Code set the conditions that earth (ground) should not be part of a supply circuit for both safety and service reasons. The most current revision of the National Electrical Safety Code shall apply.

**Substation:** A Substation is a subsidiary facility where electricity is collected and transformed prior to being connected to the power grid.

**View Shed:** A View Shed is an area of land, water or other physical environmental element that is visible to the human eye from a fixed vantage point.

**Water-Source Heat Pump:** A heat pump that uses a water-to-refrigerant heat exchanger to extract heat from the heat source.

**Water Supply Well:** Any well that is constructed to remove or return water to the ground.

**Well:** Any excavation that is drilled, cored, bored, washed, driven, dug, jetted, or otherwise constructed when the intended use of such excavation is for the location, acquisition, monitoring, or artificial recharge of ground water. This includes, but is not limited to, test wells, test borings and monitoring wells, in addition to wells to be utilized as individual or semipublic water supplies.

**Wind Farm:** A Wind Farm is a group of wind turbine Commercial Energy/Production Systems in the same location used for production of electric power. Individual turbines are interconnected with a medium voltage power collection system and communications network. At a substation this medium-voltage electrical current is increased in voltage with a transformer for connection to the high voltage transmission system.

**Wind Tower:** The monopole, freestanding structure that supports a wind turbine generation Commercial Energy Production/Conversion System.

**Zone of Visual Influence:** The area from which a development is theoretically visible. It is usually represented as a map using color to indicate visibility. Zone of Visual Influence is used to identify the parts of a landscape that will be affected by a development. A cumulative Zone of Visual Influence is used to define the cumulative effects of many developments including Wind Farms.

**Section 819-1.5 – Application for Site Plan Approval for Commercial and Industrial Energy Production/Conversion Systems (CEPCS) and for all other Commercial and Industrial Projects**

**A. An application for Site Plan Approval is required for any Commercial Energy Production/Conversion System (CEPCS) including any Commercial or Industrial Project.** Such applications shall be made in writing accompanied by information contained in the checklist that follows. The application shall be delivered to the Zoning Enforcement Officer with fees paid to the Town Clerk. The Zoning Enforcement Officer will work with the applicant to understand what information is required and can explain current zoning regulations. The Zoning Compliance Officer will inform the applicant when the forms are sufficiently complete to submit to the Town Planning Board for consideration for Site Plan approval.

1. A CEPCS is only permitted in the Ag and HC/LI districts.

**B. Information to be submitted with the Site Plan Application/Checklist:**

1. Completed application with receipt for fees paid, signed and submitted Certificate of Zoning Compliance, Site Plan Application and/or Special Use Application. Please contact the Town Zoning Enforcement Officer with any questions to help prepare these documents;
2. Review and have available for the first hearing as much information as already exists on the “Site Plan and Special Use Permit Approval Checklist”. This document is available from the Zoning Enforcement Officer or the Town Clerk. It must be fully completed and approved by the Planning Board as a prerequisite to receiving a Site Plan approval;
3. Site map/survey as required to scale showing any Federal, State, County or Local parks, recognized historic or heritage sites, State identified wetlands, or important bird area identified by NYSDEC, New York Audubon, GIS databases or other generally available documentation;
4. Standard drawings of the buildings or energy system structure, including drawings of access roads, including an engineering analysis and certificate of the structure showing compliance with applicable building code;
5. Data pertaining to the project equipment safety and stability, including results from test facilities;
6. Proposal for landscaping screening;
7. A completed SEQR – State Environmental Quality Review Short Environmental Assessment Form – as required by the State of New York. The form is available on-



- line or the Zoning Compliance Officer can assist in obtaining it. The Planning Board will review the Assessment and determine which type of project it is considered to be using State of New York published guidelines. If required, the Planning Board will recommend a Lead Agency and help determine if the scope of the project requires the long form Full Environmental Assessment (EAF) and will direct the applicant in that regard;
8. The applicant should be aware of other legal requirements and filings under State or Federal jurisdiction and obtain their approvals separately (ex. Federal Aviation authority for height restrictions, NYS Department of Environmental Conservation for environmental issues, Wyoming County building permits, etc.). The Site Plan cannot be approved if the applicant has not arranged for all other regulatory compliance;
  9. A model should be prepared with digital elevation, showing the impact of the topography upon visibility of the project from other locations, to a distance of 3 (three) miles from each construction site. The scale used shall depict the 3 (three) mile radius no smaller than 2.7 inches and the base map shall be a published topographical map showing the manmade features such as roads and buildings.

**C. Review of Site Plan** – The Planning Board’s review of the Site Plan shall include, as appropriate, but is not limited to, the following general considerations:

1. Location, arrangement, size, design and general site compatibility of buildings, lighting and signs;
2. Adequacy and arrangement of vehicular traffic access and circulation, including intersections, road widths, pavement surfaces, dividers and traffic controls;
3. Location, arrangement appearance and sufficient quantity of off-street parking and loading;
4. Adequacy and arrangement of pedestrian traffic access and circulation, walkway structures, control of intersections with vehicular traffic and overall pedestrian safety and convenience;
5. Adequacy of storm water and drainage facilities;
6. Adequacy of water supply and sewage disposal facilities;
7. Adequacy, type and arrangement of trees, shrubs and other landscaping constituting a visual and/or noise buffer between the applicant’s and adjoining lands, including the maximum retention of existing vegetation;
8. Adequacy of fire lanes and other emergency zones and the provision of fire hydrants;
9. Special attention to the adequacy and impact of structures, roadways and landscaping in areas with susceptibility to ponding, flooding and/or erosion;
10. Overall impact on the neighborhood including compatibility of design consideration;
11. Upon completion of the Site Plan Review, the Planning Board shall forward their recommendation to the Lead Agency.
12. For the protection of firefighting personnel, any electrical generating system shall have an emergency cut-off switch accessible to fireman and shall be reviewed with the Fire Department before productive use is begun.

**D. Public Hearing** – Prior to final approval the Lead Agency will conduct a Public Hearing on the Site Plan of any project scaled to be a Commercial Energy Production/Conversion

System or Commercial or Industrial project. This is to allow for the opportunity for public awareness and input.

**E. Lead Agency Action On Site Plan** – Within sixty-two (62) days of the receipt of a complete application for Site Plan approval (with all documents and drawings updated to include required features), the Lead Agency shall render a decision, file said decision with the Town Clerk, and present or mail such decision to the applicant with a copy to the Zoning Enforcement Officer. The time within which a decision must be rendered may be extended by mutual consent of the applicant and the Lead Agency.

1. Upon approval of the Site Plan and payment by the applicant of all fees and reimbursable costs due to the Town, the Lead Agency shall endorse its approval on a copy of the final Site Plan and present or forward a copy to the applicant, Zoning Enforcement Officer and the Town Clerk.
2. Upon disapproval of a Site Plan, the Lead Agency shall so inform the Zoning Enforcement Officer and the Zoning Enforcement Officer shall deny a Certificate of Zoning Compliance to the applicant. The Lead Agency shall also notify the applicant in writing of its decision and its reason for disapproval. Such disapproval shall be filed with the Town Clerk.
3. Reimbursable costs incurred by the Planning and/or Town Board for consultation fees or other extraordinary expenses in connection with their review of the proposed Site Plan shall be charged to the applicant.

**F. Performance Guarantee**

- a. No Certificate of Zoning Compliance shall be issued by the Zoning Enforcement Officer until all improvements shown on the Site Plan are installed or a sufficient performance guarantee has been posted for improvements not yet completed.
- b. The sufficiency of such performance guarantee shall be determined by the Town Board after consultations with the Planning Board, Zoning Enforcement Officer, Attorney for the Town and other appropriate parties.

**G. Inspection of Improvements** – The Town will hire a consultant familiar with the type of project, at applicant's expense, to be responsible for the overall inspections of site improvements including coordination with the Planning Board and other officials and agencies as appropriate.

**H. Access and Safety**

1. Security – All structures, in particular towers and climbing aids, must be secured against unauthorized access by means of a locked barrier. A security fence may be required.
2. Climbing Aids – Monopole towers shall have all climbing aids and any platforms locked and wholly inside the tower.
3. Operational Safety – Wind energy projects 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.

## **Section 819-1.6 Approval Standards/Permit Requirements**

It is unlawful to construct, install, maintain, modify or operate a Commercial Energy Production/Conversion System (CEPCS) or Commercial or Industrial Project that has not been issued a Certificate of Zoning Compliance with the requirements and procedures of this Town Law or any condition contained in a Special Use, Zoning and Building Permit issued pursuant to this zoning ordinance.

### **A. Permit Requirements**

1. **Certificate of Zoning Compliance/Special Use Permit** – A County Building Permit, Town Certificate of Zoning Compliance, a Special Use Permit only in appropriate districts where the use is allowed and Site Plan approval are required for the installation of a CEPCS considered part of multiple CEPCS operation.
2. **Ownership** – In cases where the owner of the property is not the applicant/owner of the CEPCS, a clear order of liability will be established. A signed and notarized legal document from the owner of record of the property on which a CEPCS will be located recognizing liability for compliance to all requirements of this law if the applicant/owner of the EPCS is unable to comply.
3. **Indemnification Clause** –The applicant shall agree to indemnify and save the Town, its officers, agents and/or employees from any liability imposed upon the Town arising from negligence, active or passive, of the applicant.
4. **Expiration** – A permit issued pursuant to this Zoning Ordinance expires if:
  - a. The CEPCS is not installed and functioning within one (1) year from the date the permit is issued; or
  - b. The CEPCS is out of service or otherwise unused for a continuous 12-month period.
5. **Fees: (Commercial)** – The application for a Special Use Permit, Certificate of Zoning Compliance or Site Plan Approval must be accompanied by the non-refundable fee required for Commercial projects.
6. **State Environmental Quality Review (SEQR)** - Depending on the scope of the project as determined by the Planning Board (see SECTION 6, (2)(g)) there shall be completed under SEQR either a short form, Environmental Assessment form or a full Environmental (EAF) Long form and, if appropriate, Appendix B Visual Assessment Form. Refer to New York State regulations on the process and content.

### **B. Financial Assurance**

1. **Insurance Coverage** – Prior to issuance of a Certificate of Zoning Compliance, the applicant shall provide the Town proof of a level of insurance to be determined by the Town Board in consultation with the town's insurer, to cover damages or injury that might result from the failure of an energy production system or any other part of the generation and transmission facility of such a Commercial Energy Production/Conversion System (CEPCS).

2. **Bonding** – Contracts with owners of CEPC shall be bonded to ensure that the energy producer, Town and landowner income continues irrespective of energy company solvency. There shall be a contract and bond to repair any roads damaged during construction and operation per Town law. The applicant must negotiate a bond to ensure that any damage to the aquifer damaged during construction will be corrected.
3. **Professional Consultants** – Professional legal, scientific and engineering consultants should be hired by the Town to review and validate all impacts and recommendations before any commercial project is accepted will be at the full expense of the applicant.
4. **Decommissioning and Restoration**  
Commercial Energy Production/Conversion System (CEPCS): The applicant shall include the following information regarding decommissioning of the project and restoring the site:
  - a. The anticipated life of the project;
  - b. The estimated decommission costs in current dollars;
  - c. The method and schedule for updating the costs of decommissioning and restoration;
  - d. The method of ensuring that payment of funds for bonds will be available for decommissioning and restoration;
  - e. The anticipated manner in which the project will be decommissioned and the site restored.

5. **Demolition and Restoration Bond**

The Planning Board and/or the Town Board shall require the applicant to provide an appropriate and adequate demolition and restoration bond for purposes of removing the CEPCS and restoring the property(ies) to pre-construction condition in the event the applicant fails to do so as required above. Proof of bond shall be provided each year or at renewal time of any permit.

The applicant, or successors, shall continuously maintain the demolition and restoration fund or bond payable to the Town of Arcade, in a form approved by the Town for the removal of non-functional CEPCS equipment, in an amount to be determined by the Town, for the period of the life of the facility. This fund or bond may consist of a letter of credit from a State of New York licensed financial institution. All costs of obtaining and maintaining the financial security shall be borne by the applicant. All decommissioning bond requirements shall be fully funded before a Certificate of Zoning Compliance is issued. The fund shall be established in a manner so it is the property of the Town of Arcade and not the applicant in the event of the applicant's bankruptcy. ~~The applicant shall conduct a bi-annual assessment, satisfactory to the Town, to determine the fund's sufficiency to properly decommission the facility. Adjustments to the fund shall be made within ten (10) business days of the applicant's receipt of the sufficiency report.~~

**The applicant shall conduct assessments every four years to determine the fund's sufficiency to properly decommission the facility. Adjustments to the fund shall be made within (10) business days of the Town's approval of the assessment, which shall not be unreasonably withheld.**

1. A Commercial Energy Production/Conversion System (CEPCS) that is out of service for a continuous 12-month period or one found to be unsafe by the Zoning Enforcement Officer and not repaired by the owner to meet Federal, State and Local safety standards within 12 months will be deemed to have been abandoned. The Zoning Enforcement Officer may issue a Notice of Abandonment in the form of a letter to the owner of a CEPCS that is deemed to have been abandoned. The Zoning Enforcement Officer will withdraw the Notice of Abandonment if the owner provides information within 30 days from the date of the notice that causes the Zoning Enforcement Officer to determine that the CEPCS has not been abandoned.
2. The owner of the CEPCS must provide the Zoning Enforcement Officer with a written Notice of Termination of Operation if the operation of a CEPCS is terminated.
3. Within 3 (three) months of receipt of Notice of Abandonment or within 6 (six) months of providing a Notice of Termination of Operations, the owner of a CEPCS must:
  - a. Remove all energy systems, above ground improvements and outdoor storage;
  - b. ~~Reduce the size of foundations, pads to below grade and remove underground electrical wires below the surface of the ground;~~  
Reduce the size of foundations to below grade and remove any underground electrical wires buried at a depth of 3 feet or less;
  - c. Remove all hazardous material from the property and dispose of the hazardous material in accordance with Federal and State law;
  - d. All disturbed areas will be de-compacted and the topsoil will be replaced to the original depth reestablishing the original contours where possible;
  - e. Repair or replace all ditches and field tiles as necessary to pre-construction condition;
  - f. All access roads will be removed, subsoil de-compacted to depth of 18 inches and topsoil replaced unless a written agreement is obtained from the property owner to leave the access road in place;
  - g. All Town, County and/or State roads will be restored to at least pre-construction conditions and road classification function.
  - h. If the owner does not or is unable to begin removal of the equipment within the time specified in Paragraph (3)(c) above, the Town is authorized to perform the decommissioning activities of the site(s) using the funds available in the bond.

### **C. Building Permit/Certificate of Zoning Compliance Permit/Special Use Permit Requirements**

In addition to those criteria set forth under other Sections of this Zoning Ordinance, the Town shall consider the following factors when setting conditions upon Building Permits, Certificate of Zoning Compliance Permits, Special Use Permits or Site Plans issued for all Commercial Energy Production/Conversion System (CEPCS) and may hire a professional engineer or consultant to assist in the review of an application at the applicant's expense:

1. Proposed ingress and egress;

2. Proximity to transmission lines, transfer stations and pipelines, which link the project to an existing energy transmission system;
3. Number of energy structures and their location;
4. Nature of land use on adjacent and nearby properties;
5. Location of other Commercial Energy Production/Conversion Systems (CEPCS) in the surrounding area;
6. Surrounding topography;
7. Proximity to residential structures, residential Zoning Districts or areas identified for future residential use;
8. Design characteristics that may reduce or eliminate visual obtrusiveness;
9. Possible adverse effects on migratory birds and other animals and wildlife;
10. Possible adverse effects of stray voltage, interference with broadcast signals, shadow flicker (if windmills) and noise;
11. Impact on the orderly development, property values and aesthetic conditions;
12. Possible adverse effects on ground or surface water quality or quantity;
13. Recommendations of the County Planning Board;
14. Any other factors that are relevant to the proposed system.

## D. Standards

### 1. Location

~~A Commercial Energy Production/Conversion Systems (CEPCS) may only be located where permitted by district zoning regulations.~~

~~An energy project may not be located within one thousand, five hundred feet (1,500 feet) of any State Forest, public park or any other area set aside for the sole purpose of preserving a unique wildlife habitat or natural formation recognized by a State, Federal or Local government designation; or within one thousand feet (1,000 feet) of a State or Federal identified wetland.~~

~~A CEPCS project may not be located within two thousand five hundred feet (2,500 feet) from Important Bird Areas as identified by the U.S. Fish and Wildlife Service, NYSDEC, Buffalo or Rochester Audubon Society or any other qualified agency as determined by the Planning Board.~~

~~A Commercial Energy Production/Conversion System (CEPCS) is not permitted within one thousand (1,000) feet of any school classroom building or school or Village/Town Park.~~

- a. A CEPCS may only be located where permitted by district zoning regulations.
- b. A CEPCS may not be located on land designated as a state forest, Town/Village Park, or set aside for the sole purpose of preserving a unique wildlife habitat or natural formation recognized by a state, federal, or local government.
- c. A CEPCS may not be located within 2,500 feet of an Important Bird Area as identified by the U.S. Fish and Wildlife Service of NYSDEC.
- d. A CEPCS may not be located within 1,000 feet of any a public school, classroom building or Village or Town Park.

2. **Power Limits** - Commercial Energy Production/Conversion Systems (CEPCS) are ~~limited to 1.5 MW.~~ Any individual generator or wind mill systems of more than 110 KW.
3. **Setbacks**
  - a. ~~All energy systems, with the exception of 819-1.8(B) shall be installed not less than the greater distance of five hundred feet (500 feet) or two (2) times the maximum height from a non-participating property line. A setback variance may be issued if the setback crosses property lines where the owner of the adjacent property provides an easement preventing future construction on the property within a distance from the CEPCS structures equal to at least the normal setback distance. This easement shall be transferrable with the property in case of future sale of the land. The setback to any road shall not be less than one thousand feet (1,000 feet). No CEPCS may be placed less than one thousand feet (1,000 feet) from any residences. No distance variance shall ever be issued for setbacks to non-participating property line, road or residence.~~
  - b. ~~Any new construction on adjacent parcels subsequent to the issuance of an approved permit to construct a CEPCS shall not cause the system to be out of conformance with the setback requirements of this law.~~
    - a. A CEPCS may not be located less than 500 feet or 1.2 x Tip Height, whichever is greater from the boundary of a non-participating property,
    - b. A CEPCS may not be located less than 1000 feet or 1.2 x Tip Height, whichever is greater from a public road.
    - c. A CEPCS may not be located less than 1000 feet or 1.2 x Tip Height, whichever is greater from a residence, unless waived in writing by the owner if the residence.
    - d. Any new construction on adjacent parcels subsequent to the issuance of an approved permit to construct a Commercial Energy Production/Conversion Systems (CEPCS) shall not cause the system to be out of conformance with the setback requirements of this law.

## **Section 819-1.7 Requirements for all Commercial Energy Production/Conversion Systems (CEPCS):**

### **A. Access Roads**

All wind systems shall use existing roads to provide access to the facility site, or if new roads are needed, minimize the amount of land used for new roads and locate them so as to minimize adverse environmental impacts. High quality agricultural soils shall be avoided to maximum extent practicable.

### **B. Electrical Wires**

1. ~~Location—All electrical wires associated with an energy system must be located at least three (3) feet underground or as specified by the National Electrical Code~~

~~(open trench required) in a manner that does not interfere with reasonably expected farm practices. (See also construction section under Agricultural Mitigation). Restoration of agricultural field tiling and drainage ditches is required.~~

- ~~2. Transmission Lines—Commercial Energy Production/Conversion Systems (CEPCS)—All energy generating systems shall combine transmission lines at points of connection to local distribution lines.~~
- ~~3. Substations—Commercial Energy Production/Conversion Systems (CEPCS)—All energy systems shall connect the facility to existing substations, or if new substations are needed, minimize the number of new substations.~~
- ~~4. Stray Current—Commercial Energy Production/Conversion Systems (CEPCS)—Properly installed energy systems will not generate this form of electrical pollution often referred to as stray or ground current. A measurement of before and after installation to insure no gain in existing electrical pollution is required for all electrical energy systems over ten (10) kilowatts. Energy systems of any size may be measured on an on/off basis to resolve any complaint of electrical pollution. Mitigation must be immediate with the energy system shut down until complete. Compliance with the National Electricity Code for both installation and testing protocol is required.~~

1. Electrical wires between CEPCS should be buried at least three feet (3') underground to the maximum extent practicable.
2. To ensure safety and minimize potential for stray currents, electrical collection systems for CEPCS shall conform to applicable requirements of the National Electric Code.
3. CEPCS shall make use of existing electric substations and their sites to the extent practicable.
4. Any buried wire cabling that crosses underneath a roadway shall have an indicator pylon on each side of the road.

### **C. Lighting**

1. General lot security and safety lighting shall comply with the Town requirement for control of stray (off property lighting) and intensity levels.
2. An energy structure may not be artificially lighted unless such lighting is required by the Federal Aviation Agency (FAA), other governmental agency, recognized safety guidelines (i.e. Mercy Flight) or the Planning Board. If lighting is required, the lighting must comply with FAA minimum requirements, and whenever possible, be at the lowest intensity allowed.
3. Flashing anti-collision lights shall be synchronized among the structures constructed in the energy project when necessary. If the proposed CEPCS is adjoining a pre-existing energy project, the new flashing warning lights shall be coordinated with the existing lights to the greatest extent possible.

### **D. Components**

Aesthetics -Appearance, Color and Finish – The exterior surface of any visible components of a Commercial Energy Production/Conversion System (CEPCS) must be a



non-reflective, neutral color. Any equipment that is located within view or within one mile of each other must be of uniform design, including type, color and number of accessory items.

#### **E. Buildings and Outdoor Storage**

Any ancillary buildings and any outside storage associated with an energy system must, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the facility into the natural setting and existing environment (i.e. In an agricultural setting, accessory buildings could look like barns). Appropriate landscaping or architecture shall be provided to screen accessory structures from roads and adjacent residences.

Substations and Appurtenant Buildings shall be as per Town of Arcade Zoning Law including:

1. Lighting Standards as per Town Law, Section 807 – Lighting Standards for Site Plans;
2. All driveways and parking areas intended to serve permanent substations, office, maintenance and appurtenant buildings shall have asphaltic or concrete paving;
3. Security and landscape fencing, where required, shall be inspected regularly by the operator and maintained in good condition at all times;
4. All permanent structures shall be graded, landscaped and maintained in good order by the operator according to seasonal conditions. Lawns, shrubs, trees and buffer areas must be maintained and/or replaced as necessary.

#### **F. Signs**

No energy system, tower, building or other structure associated with an energy system may be used to advertise or promote any product or service. A weather resistant sign plate no greater than two (2) square feet in size containing the current owner or operator, emergency phone number and current address of such owner/operator shall be located on the exterior surface of the structures or on the fence surrounding each structure and viewable by the Zoning Enforcement Officer. ~~No other word or graphic representation, other than appropriate warning signs, may be placed on a structure, building or other structure associated with a CEPCS) so as to be visible from any public road.~~

**Except the tower identifier numbers near the tower base and the aforementioned sign identifying the owner or operator, no other word or graphic representation, other than appropriate warning signs, may be placed on a structure, building, or other structure associated with a CEPCS so as to be visible from any public road.**

#### **G. Agricultural Mitigation**

The following shall apply to construction areas for a Commercial Energy Production/Conversion System (CEPCS) located in County-adopted, State-certified Agricultural Districts:

The applicant is encouraged to coordinate with the NYS Department of Agriculture and Markets (Ag and Markets) to develop an appropriate schedule for inspections to assure that the goals are being met;

1. For multiple Commercial Energy Production/Conversion Systems (CEPCS) and when required by the Town, the applicant shall hire an Environmental Monitor to oversee the construction and restoration in agricultural fields. The person or company hired as an Environmental Monitor shall be approved by the Town and paid by the applicant;
2. Any construction involving agricultural lands should be done in accordance with the NYS Department of Ag and Markets, "Guidelines for Agricultural Mitigation for Wind Power Projects" in addition to local Town requirements.

#### **H. Siting Considerations**

1. Minimize impacts to normal farming operations by locating structures and roads along field edges;
2. Locate access roads, which cross agricultural fields, along ridge tops where possible to eliminate the need for cut and fill and reduce the risk of creating drainage problems;
3. Avoid dividing larger fields into smaller fields, which are more difficult to farm, by locating access roads along the edge of agricultural fields where possible;
4. All existing drainage and erosion control structures such as drainage diversions, ditches, and tile lines shall be avoided or appropriate measures taken to maintain the design and effectiveness of the existing structures. Any structures disturbed during construction shall be repaired as close to original conditions as possible, as soon as possible, unless such structures are to be eliminated based on a new design;
- ~~5. Applicant shall minimize or mitigate any interference with electromagnetic communications, such as radar, radio, telephone or television signals caused by any CEPCS. No individual tower facility shall be installed in any location along the major axis of an existing microwave communication link where its operation is likely to produce electromagnetic interference in the links operation. No individual tower shall be installed in any location where it's proximity with fixed broadcast, retransmission or reception antenna for radio, television or wireless phone or other communication system transmission or reception.~~

#### **I. Construction**

1. The surface of access roads constructed through agricultural fields shall be level with the adjacent field surface;
2. The source and type of access road materials shall be described and approved by the Town of Arcade Highway Superintendent and the landowner prior to the construction of any access road or access apron;
3. Where necessary, culverts and water bars shall be installed to maintain natural drainage patterns;
4. All topsoil must be stripped from agricultural areas used for vehicle and equipment traffic and parking. All vehicle and equipment parking shall be limited

to the access road and/or designated work areas such as tower sites and laydown areas. No vehicles or equipment will be allowed outside the work area without prior approval from the landowner and when applicable, the Environmental Monitor;

- ~~5. Topsoil from work areas (tower sites, parking areas, “open cut” electric cable trenches, along access roads) shall be stockpiled separate from other excavated material (rock and or subsoil). At least fifty (50) feet of temporary workspace is needed along “open cut” electric cable trenches for proper topsoil segregation. Topsoil stockpile areas shall be clearly designated in the field and on the onsite “working set” of construction drawings. Stockpiles will be located far enough from access roads and work areas to eliminate the possibility of vehicles inadvertently compacting the soil;~~
5. When constructing CEPCS systems in an active agricultural field, topsoil from work areas shall be stripped in accordance with guidance of the NYS Department of Agriculture and Markets on construction of wind farms in agricultural fields.
6. In cropland, hay land and improved pasture, a minimum depth of forty-eight (48) inches of cover will be required for all buried wires. In unimproved grazing areas thirty-six (36) inches of cover will be required. In areas where the depth of soil over bedrock ranges from zero to forty-eight (48) inches, the electric wires shall be buried entirely below the top of the bedrock or at a depth specified for the particular land use, whichever is less. At no time will the depth to cover be less than twenty-four (24) inches below the soil surface;
- ~~7. All excess subsoil and rock shall be removed from the site. On-site disposal of such material shall be allowed if approved by the landowner, and when applicable, the Environmental Monitor, with appropriate consideration given to any possible agricultural or environmental impacts. Any permits necessary for disposal under Local, State and/or Federal laws and regulations must be obtained by the contractor, with the cooperation of the landowner when required;~~
7. When constructing CEPCS systems in an active agricultural field, distribution of excavated subsoil and rock shall in accordance with guidance of the NYS Department of Agriculture and Markets on construction of wind farms in agricultural fields.
8. In pasture areas, work areas will be fenced to prevent livestock access, consistent with landowner agreements;
9. All pieces of wire, bolts and other unused metal objects will be picked up and properly disposed of as soon as practicable after the unloading/unpacking of energy system components so that these objects will not be mixed with any topsoil. Any permits necessary for disposal under Local, State and/or Federal laws and regulations must be obtained by the contractor, with the cooperation of the landowner when required;
10. Travel of all heavy equipment (including concrete trucks and erection cranes) will be limited to designated access roads and gravel crane pads at all times;
11. Excess concrete will not be buried or left on the surface in any areas. Concrete trucks will be washed outside of active agricultural areas. Any permits necessary

- for disposal under Local, State and/or Federal laws and regulations must be obtained by the contractor, with the cooperation of the landowner when required;
- ~~12. During construction, all operations including truck traffic, shall not commence before 7:00 AM each day and shall conclude no later than 10:00 PM each day.~~
13. Construction of CEPCS shall be limited to daylight hours.
- a. Wind Mill Construction Exception – Wind mill construction when requiring low wind conditions may be done overnight, with the contractor notifying the Zoning Officer no later than that day and any residences within a quarter of a mile.

#### **J. Restoration**

1. Restoration scheduling shall be consistent with the seasonal limitations identified by NYS Ag and Markets and will be incorporated into the project's Agricultural District Notice of Intent (if applicable) as well as the Storm Water Management Plan (general permit);
2. Following construction, all disturbed areas will be de-compacted to a depth of eighteen (18) inches with a deep ripper or heavy-duty chisel plow. In areas where the topsoil was stripped, soil de-compaction shall be conducted prior to topsoil replacement. Following de-compaction, all rocks four (4) inches or larger in size will be removed from the surface of the subsoil prior to replacement of the topsoil. The topsoil will be replaced to original depth and the original contours will be reestablished where possible. All rock four (4) inches and larger shall be removed from the surface of the topsoil. Subsoil de-compaction and topsoil replacement should be avoided after October 1<sup>st</sup>, unless approved on a site-specified basis by the landowner. All parties involved should be cognizant that areas restored after October 1<sup>st</sup> may not obtain sufficient growth to prevent erosion over the winter months. If areas are to be restored after October 1<sup>st</sup>, provision should be made to restore any eroded areas in the springtime, to establish proper growth;
3. All access roads will be regraded to restore original surface drainage patterns or other drainage pattern incorporated into the design;
4. All restored areas shall be seeded with the seed mix specified by the landowner, in order to maintain consistency with surrounding areas;
5. All surface or subsurface drainage structures damaged during construction shall be repaired as close to preconstruction conditions or better, unless said structures are to be removed as part of the construction design;
6. Following restoration, all construction debris will be removed from the site.

#### **K. Three-Year Monitoring and Remediation**

1. The applicant will provide a monitoring and remediation period of no less than three (3) years immediately following the completion of initial restoration. The three-year (3) period allows for the effects of climatic cycles such as frost action, precipitation and growing season to occur, from which various monitoring determinations can be made. The monitoring and remediation phase will be used to identify any remaining impacts associated with construction that are in need of mitigation and to implement the follow-up restoration;

2. General conditions to be monitored include topsoil thickness, relative content of rock and large stones, trench settling, crop production, drainage and repair of severed fences, etc. Impacts will be identified through on-site monitoring of all areas impacted by construction and through contact with respective farmland operators and the NYS Department of Agriculture and Agri-Markets.
3. Topsoil deficiency and trench settling shall be mitigated with imported topsoil that is consistent with the quality of topsoil on the affected site. Excessive amounts of rock and oversized stone material will be determined by a visual inspection of disturbed areas as compared to portions of the same area located outside the construction area. All excess rocks and large stones will be removed and disposed of by the applicant.
4. When subsequent crop productivity within affected areas is less than that of adjacent agricultural land, the applicant as well as other appropriate parties will help to determine the appropriate rehabilitation measures to be implemented. Because conditions which require remediation may not be noticeable at, or shortly after, the completion of construction, the signing of a release form prior to the end of the remediation period will not obviate the applicant's responsibility to fully redress all project impacts.
5. Subsoil compaction shall be tested using an appropriate soil penetrometer or other soil compaction measuring device. Compaction tests will be made for each soil type identified in the affected area. The subsoil compaction tests within the affected area are to be compared with those of the adjacent unaffected portion of the field/soil subunit. Where representative subsoil density of the affected area exceeds the representative subsoil density of the unaffected area, additional shattering of the soil profile will be performed using the appropriate equipment. Deep shattering will be applied during periods of relatively low soil moisture to ensure the desired mitigation and to prevent additional subsoil compaction. Oversized stone/rock material that is uplifted to the surface as a result of deep shattering will be removed.

#### **L. Noise – Sound Power Level Limit**

- ~~1. The sound generated by the Commercial Energy/Production System (CEPCS) energy system shall not exceed 10 dB(A) above the ambient dB(A) (L90) sound level, or exceed 20 dB(C) above the dB(A) sound level limit outside any residence or property line of non-participating landowners during daylight hours (7:00 AM to 7:00 PM), and shall not exceed 5 dB(A) above the ambient dB(A) (L90) sound level, or exceed 20 dB(C) above the dB(A) sound level limit outside any residence or property line of non-participating landowners during nighttime hour (7:00 PM to 7:00 AM). Sound level measurement shall be a ten-minute (10) average (Leq). All systems must meet these sound requirements at all times or be immediately shut down until remedied. A dB(A) sound level (L90) survey map for both daytime and nighttime should be included as part of the SEQR for the project.~~
- ~~2. If a variance request against the noise limit regulations is submitted in writing by a participating landowner, no noise limits shall apply to the participating landowner's residence that they occupy.~~

~~3. Prior to commercial use of the system, the owner at his expense must execute a noise study measuring noise levels facing inwards at each property boundary line to the above limits with the equipment running at expected normal levels. Such study must be provided to the Town ZEO as proof of meeting the requirements. Three months in to operational use a repeat of the study shall be performed and also provided to the Town ZEO. Failure to meet the limits will require shut down or remediation of screening to affect proper limits.~~

1. The 1-hour L10 sound pressure level generated by a CEPCS at any non-participating residence shall not exceed 50 DBA. As used in this requirement, the 1-hour L10 sound pressure level is the sound level that is exceeded 10% of the timing during a 1-hour period.
2. Prior to commencement of construction, the applicant must provide the Town ZEO a study demonstrating the noise requirement will be met.
3. No later than six months after start of commercial operation, the applicant must perform noise measurements and analysis estimating the actual sound levels of the CEPCSs. A report documenting the post-construction measurements and analysis must be provided to the Town's ZEO no later than 2 months after completion of the on-site measurements.

#### **M. Electromagnetic Interference (EMI)**

~~No individual energy facility shall be installed in any location where proximity with existing broadcast, retransmission or reception antenna (including residential antenna) for radio, television, wireless phone or other personal communication systems would produce electromagnetic interference with signal transmission or avoid any interference with electromagnetic communications, such as radio, telephone or television signals caused by any Commercial Energy/Production System (CEPCS) or the applicant shall mitigate any such interference.~~

Applicant shall minimize or mitigate CEPCS interference with electromagnetic communications, such as radar, radio, telephone, or television. No CEPCS shall be installed along the major axis of a licensed and operating microwave communication link where its operation materially degrades the capability of the communication link.

#### **N. Tax Exemption**

The Town hereby exercises its right to opt out of tax exemption provisions of Real Property Tax Law 487, pursuant to the authority granted by paragraph eight (8) of that Law.

#### **O. Inspections**

Town Zoning Enforcement Officer or designated representative shall have the right at any reasonable time to enter the premise on which an energy system has been placed, to inspect any and all parts of said installation. After conducting said inspection, the Zoning Enforcement Officer may order the owner of the energy system to render it inoperative for reasons related to safety, noise, electrical pollution or electromagnetic interference. If

unable to contact the owner, the Zoning Enforcement Officer may execute an emergency shut down procedure which has been provided in advance by the owner/applicant in the form of a clear and concise check sheet as part of the permit process. All liability for the execution of an emergency shutdown shall be with the owner of the energy system.

**P. Geographic Information System (GIS)**

To facilitate timely response in the case of a medical, fire or police emergency, the applicant/owner of a Commercial Energy Production/Conversion System (CEPCS) is required to have established specific street addresses/locations tied into the County of Wyoming's Geographic Information System (GIS) for all above ground facilities (i.e. towers, substations, laydown yards, appurtenant buildings, temporary housing, office and maintenance buildings, etc.) prior to the construction of each.

**Q. Roads Agreement**

1. The Town of Arcade has a Road Use Law that all developers of commercial projects will be required to comply with. Contact the Town Superintendent of Highways to understand this law.
2. The Town reserves the right to limit hours of road use, delivery of equipment and other potentially objectionable construction activity.

**R. Hazardous Materials**

All hazardous materials used during or after construction/installation shall have Federal Material Safety Data Sheets (MSDA) maintained on the project site. The Project Coordinator is to review these with the local Fire and Emergency Services departments so they can be prepared in the event of any emergency.

**Section 819-1.8 Unique Requirements for Wind Commercial Energy Production/Conversion System (CEPCS)**

**A.** A Commercial Energy Production/Conversion System (CEPCS) must be of monopole construction. The turbine and tower may only be used for production of wind power energy and may not be used for any other purpose. The color of the structure and rotor must be of neutral color where the structure blends into the background of the community where it is sited.

**B. Height**

~~The maximum turbine height above grade shall not exceed four hundred twenty-five feet (425) for a CEPCS.~~

The height of a CEPCS measured from the ground to the highest reach of a blade or other component (it's "Tip Height") shall not be greater than 600 feet.

**C. Clearance** – The vertical distance from ground level to the tips of a wind turbine generator blade when the blade is at its lowest point must be a least thirty (30) feet.

**D. Access and Safety**

1. Security – All energy project structures including any climbing aids must be secured against unauthorized access by means of a locked barrier. A security fence shall be required which shall be a minimum of eight (8) feet high.
2. Climbing Aids – Monopole wind towers shall have all climbing aids and any platforms locked and wholly inside the tower.
3. Operational Safety – Wind towers 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.
4. Lightning – All wind towers shall provide a continuous electrical path to the ground to protect the tower from lightning. All guy wires capable of conducting electricity shall be adequately grounded.

5. **Components**

- a. Visual Impact Assessment and Mitigation Plan Specific for Wind Turbine Farms – The applicant shall complete Visual Environmental Assessment form (Visual EAF-SEQR) as well as a visual impact assessment of any proposed Wind Farm or any modifications to existing Wind Farms. The applicant shall use the visual assessment to develop a Visual Mitigation Plan acceptable to the Town to off-set the impacts of the Wind Farm’s

placement to the reasonable extent practicable. The visual impact assessment shall include:

- b. Before and after photos or computer simulations from key viewpoints both inside and outside the Town, including State highways and other major roads, from State and local parks, other public lands, from any privately owned preserves and historic sites normally open to the public, and from any other locations where the site is visible to a large number of visitors or travelers. A balloon test may also be requested by the Planning Board;
- c. Alternative tower designs;
- d. Assessment of visual impact from abutting properties and streets of the tower base, guy wires, accessory buildings and other element of the CEPCS identified by the Planning Board;
- e. A view-shed map of the proposed Commercial Energy Production/Conversion System (CEPCS) within a radius of seven (7) miles from any portion of the EPCS;
- f. An inventory of all aesthetic resources in the view shed defined in item (c);
- g. Appropriate landscaping shall be provided to screen accessory structures from roads and adjacent residences;
- ~~h. Where wind characteristics permit, wind towers shall be set back from the tops of visually prominent ridge lines to minimize the visual contrast from any public access;~~
- This item is intentionally left blank.**
- i. No individual tower facility shall be installed in 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 public accessible parkland or open spaces of the Town;

- j. Application proposal shall avoid to the extent possible, the creation of artificial habitats for raptors or captor prey, such as:
  1. Electrical equipment boxes on or near the ground that can provide shelter and warmth;
  2. Horizontal or perching opportunities on the towers or related structures;
  3. Soil where weeds can accumulate.

#### **E. Shadow Flicker**

1. Shadow Flicker Maps for Wind Turbines  
Maps shall be prepared showing projected annual hours of shadow flicker impact for all sensitive areas/locations within the project area, including but not limited to, any residence, school, hospital, church, park, or public library.
2. Shadow Flicker Duration  
~~Shadow flicker for all sensitive areas/locations within the project area shall be limited to zero (0) hours per year.~~

**The applicant shall provide window blinds or other mitigation for any non-participating residences where 30 or more annual shadow hours are expected assuming average cloud cover.**

#### **F. Noise**

A pre-construction ambient dB(A) (L90) sound level measurement survey for both daytime and nighttime be conducted (10-minute average (Leq)(L90) for any proposed Commercial Wind Project, which includes all properties within one mile of any proposed sited turbine.

#### **~~G. Electromagnetic Interference (EMI)~~**

~~Alternatively, Wind Energy systems shall be properly filtered or shielded in order to avoid electromagnetic interference and shall comply with rules and regulations of the Federal Communication Commission contained in 47 CFR Parts 15 and 18.~~

### **Section 819-1.9 Unique Requirements for Commercial Energy Production/Conversion System (CEPCS) Requiring Water or Liquid Surface Storage in Ponds or Holding Tanks**

All projects requiring creation of ponds or liquid storage sites shall have protective containment devices or berms constructed to protect the neighboring properties. Such devices and berms shall be constructed to meet New York State Department of Environmental Conservation (NYSDEC) minimum standards. The Project Manager shall present the design construction documents and drawings and provide evidence they will meet NYSDEC regulations.

## **Section 819-1.10 Unique Requirements for Solar Commercial Energy Production/Conversion Systems**

In addition to the requirements of Sections 819-1.5 through 819-1.7 of this law, a Commercial Solar Energy Production/Conversion system must meet the following requirements:

- A. Minimum lot sizes are 5 acres for any system;
- B. Any solar panel display shall not reflect sunlight off property at other buildings or pastures. When necessary, plantings will be necessary near property lines to protect adjacent land owners in such cases;
- C. In an occasion where another use is proposed (ex. factory, office building, etc.) and solar energy is roof mounted to provide energy to the building(s), the maximum height restrictions on buildings is exempt for the added solar collector panels provided they do not extend more than 15 feet above the roof and do not cover more than 75% of the roof area;
- D. If power is connected to the electric utility grid, a Certification of Acceptance and conformance to requirements must be obtained from the utility prior to energizing the connection.

Because they dramatically increase impervious coverage, habitat and farmland loss, and aesthetic impacts, large-scale, principal-use systems often must adhere to more rigorous development standards. Such requirements usually address system siting issues; maximum system height; minimum setbacks from adjacent lot lines or structures; minimum lot size; screening methods; system operation and maintenance; safety precautions; utility notification and interconnection agreements; leasing and easement information; compliance with relevant state and federal requirements, such as Federal Aviation Administration (FAA) regulations; required environmental and economic studies; financial surety; and abandonment, decommissioning, and site restoration.

## **Section 819-1.11 Unique Requirements for Installation of Geothermal Commercial Energy Production/Conversion Systems**

- A. It shall be unlawful to install a new geothermal well or modify an existing geothermal well without a Site Plan review by the Planning Board.
- B. Prior to constructing a new geothermal well or modifying an existing geothermal well, the property owner shall file all appropriate applications with the Town of Arcade Planning Board and pay all applicable fees.
- C. The application to construct or alter a geothermal well must be filed on behalf of the current owner or equitable owner.
- D. The Site Plan must demonstrate that the geothermal installation meets all zoning set back and height distances for the zoning district it is located in. In the event the owner wishes

to enclose the installation in a building, the building itself must also meet such requirements. In addition, the building shall be designed to be in character with other buildings in the zoning district and colored similarly to other structures found in the Town, basically in neutral colored paint or siding.

- E. If geothermal well construction is not completed within 3 years of the Site Plan approval date, the approval to construct shall expire.
- F. All geothermal well applications must be completed and include the following information:
  - 1. Applicant name and signature, address, and telephone number.
  - 2. Site address, subdivision name, and lot number.
  - 3. Driller name, (State licensing agency) number, and telephone number.
  - 4. Tax parcel number.
  - 5. Description of construction.
  - 6. Plot plan to include:
    - a. Property lines, lot dimensions, slope direction, adjacent streets, and reference to North;
    - b. Marked distances from the proposed geothermal well and final building to any existing and proposed water supplies, buildings, driveways, parking areas, two (2) non-parallel property lines, retention areas, surface waters, chemical/fuel storage areas and any other feature that requires an isolation distance as defined in this ordinance.
- G. Standing Column Well (SCW) Regulations
  - 1. Standing column wells should be dug to potable water well standards.
  - 2. Isolation distances should be used.
  - 3. Design and installation of SCW systems - The standing column well geothermal system, including heat pump exchanger, piping, and all other related systems shall be installed by a geothermal well installation contractor who is certified in the proper installation methods as specified by the manufacturer.
- H. System Types

Open Loop systems are prohibited. Only Close Loop systems or Standing Column well systems are allowed. Separate supply and reinjection wells are prohibited.
- I. Location of Geothermal System

Minimum isolation (setback) distance from potential sources of pollution: 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 Table 1.

**Table 1**

<b>Setback From</b>	<b>Borehole and Geothermal Supply and Geothermal Return Well (feet)</b>
Delineated wetlands, flood plains, lakes, ponds, or other surface waters	10-25 feet
Storm drains, retention basins, stabilization ponds, or storm water management facilities	at least 10 feet
Preparation area or storage area of hazardous spray materials, fertilizers or 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 25 feet
Subsurface sewage disposal systems, elevated sand mounds, or other sewage disposal fields	25-50 feet
Sewage seepage pits and cesspools	at least 25 feet
Farm silos, barnyards, privies, and fuel tanks	at least 25 feet
Spray irrigation sites, sewage sludge, and septage disposal sites	at least 25 feet
Dedicated public right-of-way and property line	at least 10 feet
	at least 10 feet
Identified NPL Site (Superfund) plume area	at least 300 feet
Any other source or potential source of pollution	

## **Section 819-1.12 Other Forms of Commercial Energy Production/Conversion Systems**

Other forms of Energy Systems beyond Solar, Wind and Geothermal: These include, but are not limited to, natural gas wells, oil wells, biomass/biodiesel, bio digestion (including manure pits) and waste disposal/energy recovery and generation systems and other similar systems.

These types of systems will be permitted only after meeting all requirements of Sections 819-1.5 and 819-1.6 of this law and any appropriate New York State Department of Environmental Conservation rules and regulations. The owner of the project is required to research and present all such regulation to the Lead Agency during the planning process at his expense.

## **Section 819-1.13 Future New Technology Commercial Energy Production/Conversion Systems**

1. It is anticipated that as technology is developed, new types of systems may be developed that would be appropriate for use in commercial settings. This may make it necessary to amend this law to define and add regulations for such systems. However, until such new regulations are developed, commercial owners may apply for a variance if they propose using novel new types of technology systems to be considered as appropriate commercial use.
2. Those approving the variance should be guided by the technology being of such scope or scale that it readily applies to the nature of commercial applications using the KW (Kilowatt) levels shown in this Section 819.

## **Section 819-1.14 Continuing Liability of Applicant**

No transfer or assignment of ownership or control of the premises or improvements which are the subject of the application and the Energy Production/Conversion System (CEPCS) which are the subject of the application shall eliminate or release the applicant from liability under these zoning regulations or shall any other party be so released by such transfers of assignment from any liability under this said Local Law.

## **Section 819-1.15 Notification**

All residents within a one-mile (1) radius of any potential sited system shall be sent a registered letter by the energy vendor explaining the scope of the energy Project. The resident must be allowed a sixty-day (60) window after receipt of the letter to comment in writing any concerns on the project to the town Board before any energy system construction begins. The comments should become public record.

### **Section 819-1.16 Enforcement**

Enforcement shall be done by the Town Zoning Enforcement Officer.

### **Section 819-1.17 Penalties**

Any person, firm or corporation that shall establish, place, construct, enlarge or erect any Commercial/Industrial and Energy Production/Conversion System (CEPCS) in violation of the provisions of this Zoning Law or shall otherwise violate any of the provisions of this Law shall be subject to:

- A. Such penalties as may otherwise be provided by applicable Local Laws, ordinances, rules, regulations of the Town for violations; and
- B. Injunctive relief in favor of the Town to cease any and all such actions which conflict with the Law and, if necessary, to remove any construction that may have taken place in violation of this Law;

### **Section 819-1.18 Severability**

In the event that any word, phrase or part of this Local Law shall be declared unconstitutional, the same shall be severed and separated from the remainder of this Local Law and shall not affect the remainder of said Local Law which shall remain in full force and effect

### **Section 819-1.19 Effective Dates**

This Local Zoning Law shall take effect immediately upon filing in the Office of the New York State Secretary of State in accordance with Section 27 of the Municipal Home Rule Law.