
COMMUNITY & ECONOMIC DEVELOPMENT DEPARTMENT

TO: City Manager

SUBJECT: Request for Amendment Regulating Location and Use of Wind and Solar Energy Systems to Zoning Ordinance.

Date: March 7, 2012

Background:

The City Council approved in 2011 a direction to staff and the Planning Commission to consider zoning ordinance regulations for the location and use of wind and solar energy systems in the city. This proposed amendment to the zoning ordinance supports the City's goals of being a sustainable community and promoting great and livable neighborhoods. People in communities nationwide have been exploring the use of wind and/or solar energy as a low cost and clean electricity system for their residence or business and staff and the City Council believe that it is prudent to be proactive in this area to have regulations in place when the cost and technology of these systems result in more citizen consideration of these systems for their home or business.

City staff has met through the months with representatives of land development and zoning officials from the Illinois Quad Cities under the coordination of Bi-State Regional Commission officials to discuss many zoning issues including wind and solar energy system regulations. There are a number of local communities and jurisdictions (Moline, Milan and Rock Island County) that have developed regulations allowing wind or solar arrays by right or by special permission based on the zoning district and size of facilities. Staff compiled information regarding these regulations and presented proposed Rock Island regulations to the Planning Commission in August 2011. Following Commission discussion a public hearing was held in February 2012. Public input and additional Commission discussion and recommendations resulted in a final draft ordinance amendment considered by the Commission at its March 6, 2012 meeting. The proposed amendments to Sections 8.19 and 8.20 of Article VIII of the Zoning Ordinance are attached.

Public Hearing Comments

No one spoke at the public hearing regarding the request. Prior to the hearing staff received comments from Mark T. Turczynski from Midwest Engineering Consultants, Lt. in Moline supporting adding language to both proposed wind and solar energy systems regulating the selling of energy to local power companies. The regulations intent would not allow a large energy system to be constructed just for the purpose of selling energy, but would allow for the selling of energy not used by the existing structure/use to be sold to a local power company. The Commission supported incorporating language similar to Moline's ordinance that states the following: "Applicant shall provide notice to the local utility company and submit a copy of an approved net metering agreement to the City prior to obtaining a building permit".

Recommendation:

The Planning Commission voted eleven to zero to recommend approval of the attached ordinance amendments.

Submitted by: Alan Fries, Urban Planner II
Alan M. Carmen, Planning and Redevelopment Administrator
Gregory S. Champagne, Community and Economic Development Director

Approved: Thomas Thomas, City Manager

Ordinance Amending Article VIII of the Zoning Ordinance

Section One. Article VIII of the Zoning Ordinance is hereby amended by inserting Section 8.19 Wind Energy Systems and Section 8.20 Solar Energy Systems.

Section 8.19 Wind Energy Systems

A. Small Wind Energy System: An on-site one-turbine wind energy system that is incidental and subordinate to a principal use and/or structure serving the needs of all Residential, Suburban Estate, General Agricultural, C-2 (conservation), Neighborhood Business, University and College, and Office zoning districts.

1. Small systems shall be allowed as permitted uses in above identified zoning districts if it meets conditions in ordinance.
2. Both roof attached and rear yard freestanding system shall have only monopole units (no lattice or guyed tower be allowed).
3. Only one system per property shall be allowed and system shall not exceed peak for energy demand of property.
4. Maximum height for freestanding pole for system shall be 60 feet (rear location only).
5. Maximum rotor diameter for system shall be not greater than 12 feet and vertical axis turbines are encouraged, but not required.
6. Minimum ground to blade spacing shall be 20 feet.
7. Setback shall be 1.1 times (110 %) the total height of unit, or total height plus ten feet, whichever is greater.
8. Roof mounted system shall only be allowed on rear side of roof facing.
9. Roof mounted system shall not project more than six (6) feet above peak of roof.
10. System shall have a non-reflective and neutral color with no advertising or logos on system blades or tower other than a small identification of the manufacturer.
11. All electric circuits shall be underground or in conduits attached to structures or towers.
12. System shall be secured from climbing or unauthorized access.
13. Applicant shall provide notice to the local electric utility company and submit a copy of an approved net metering agreement to the City prior to obtaining a building permit.
14. If system is nonfunctional or inoperative for a continuous one-year time period it shall be deemed abandoned and shall be required to be removed within 90 days.
15. Sound levels shall not exceed requirements in Section 34.11 of Zoning Ordinance
16. System shall not cause vibration, interference or shadow flicker on neighboring properties.
17. System shall comply with adopted building and fire codes and all other applicable state and federal regulations.

B. Large Wind Energy System: An on-site wind energy system with no more than two turbines that is incidental and subordinate to a principal use and/or structure serving the needs of B-2, B-3, B-4, ORT, I-1 and I-2 zoning districts.

1. Large systems be allowed as permitted use in above identified zoning districts if it meets conditions in ordinance.
2. Both roof attached and rear yard freestanding system shall have only monopole units (no lattice or guyed wire be allowed).
3. No more than two units on property shall be allowed and shall not exceed the peak for energy demand of property.
4. Maximum height for freestanding pole shall be 100 feet (rear yard location only).

5. Maximum rotor diameter shall be not greater than 12 feet and vertical axis turbines are encouraged, but not required.
6. Minimum ground to blade spacing shall be 20 feet.
7. Setback shall be 1.1 times (110 %) the total height of unit, or total height plus ten feet, whichever is greater.
8. Roof mounted system shall only be allowed on rear side of roof facing.
9. Roof mounted system shall not project more than six (6) feet above peak of roof.
10. System shall have a non-reflective and neutral color with no advertising or logos on system blades or tower other than a small identification of the manufacturer.
11. All electric circuits shall be underground or in conduits attached to structures or towers.
12. System shall be secured from climbing or unauthorized access.
13. Applicant shall provide notice to the local electric utility company and submit a copy of an approved net metering agreement to the City prior to obtaining a building permit.
14. If system is nonfunctional or inoperative for a continuous one-year time period it shall be deemed abandoned and shall be required to be removed within 90 days.
15. Sound levels shall not exceed requirements in Section 34.11 of Zoning Ordinance
16. System shall not cause vibration, interference or shadow flicker on neighboring properties.
17. System shall comply with adopted building and fire codes and all other applicable state and federal regulations.

Section 8.20 Solar Energy Systems

A. Small Solar Energy System: An on-site solar energy system that is incidental and subordinate to a principal use and/or structure serving the needs of all Residential, Suburban Estate, General Agricultural, C-2 (conservation), Neighborhood Business, University and College and Office zoning districts.

1. Small systems shall be allowed as permitted use in above identified zoning districts if it meets conditions in ordinance.
2. Only one freestanding unit shall be allowed per property and shall only be allowed in a rear yard location and shall meet all rear yard setback requirements as an accessory structure and shall have a maximum array size of 240 square feet.
3. Maximum height for freestanding unit shall be 15 feet.
4. Attached systems may be attached to principal or accessory structures and shall not project into minimum yard setback requirement.
5. Roof mounted system panels (other than flat solar panels) shall only be located on the rear side of a roof facing and shall be no more in height than six feet above the peak of the roof and/or shall not exceed total height of subject zoning district property is located.
6. Flat roof system panels shall be allowed on a front and/or side roof facing only if they are mounted flat against the roof surface or incorporated into roofing surface material.
7. System shall be secured from climbing or unauthorized access.
8. Applicant shall provide notice to the local electric utility company and submit a copy of an approved net metering agreement to the City prior to obtaining a building permit.
9. If system is nonfunctional or inoperative for a continuous one-year time period it shall be deemed abandoned and shall be required to be removed within 90 days.
10. System shall have non-reflective and neutral color with no advertising or logos on system panels and/or supporting structure other than a small identification of the manufacturer.
11. All electric circuits shall be underground or in conduits attached to structures.
12. System shall comply with adopted building and fire codes and all other applicable state and federal regulations.

B. Large Solar Energy System: An on-site multiple unit solar energy system that is incidental and subordinate to a principal use and/or structure serving the needs of B-2, B-3, B-4, ORT, I-1 and I-2 zoning districts.

1. Large multiple unit systems shall be allowed as permitted uses in the above identified zoning districts if it meets conditions in ordinance.
2. Large multiple unit freestanding systems shall only be allowed in a rear yard location and shall meet all rear yard setback requirements as an accessory structure.
3. Maximum height for freestanding units shall be 15 feet.
4. Attached systems may be attached to principal or accessory structures and shall not project into minimum yard setback requirement.
5. Roof mounted system panels (other than flat solar panels) shall only be located on the rear side of a roof facing and shall be no more in height than six feet above the peak of the roof and/or shall not exceed total height of subject zoning district property is located.
6. Flat roof system panels shall be allowed on a front and/or side roof facing only if they are mounted flat against the roof surface or incorporated into roofing surface material.
7. System shall be secured from climbing or unauthorized access.
8. Applicant shall provide notice to the local electric utility company and submit a copy of an approved net metering agreement to the City prior to obtaining a building permit.
9. If system is nonfunctional or inoperative for a continuous one-year time period it shall be deemed abandoned and shall be required to be removed within 90 days.
10. System shall have non-reflective and neutral color with no advertising or logos on system panels and/or supporting structure other than a small identification of the manufacturer.
11. All electric circuits shall be underground or in conduits attached to structures.
12. System shall comply with adopted building and fire codes and all other applicable state and federal regulations.