

MINUTES OF A REGULAR MEETING

URBANA PLAN COMMISSION

APPROVED

DATE: August 19, 2010

TIME: 7:30 P.M.

PLACE: Urbana City Building – City Council Chambers
400 South Vine Street
Urbana, IL 61801

MEMBERS PRESENT: Jane Burris, Lew Hopkins, Dannie Otto, Michael Pollock,
Bernadine Stake, Marilyn Upah-Bant

MEMBERS EXCUSED: Andrew Fell, Tyler Fitch, Ben Grosser

STAFF PRESENT: Lisa Karcher, Planner II; Jeff Engstrom, Planner I; Teri Andel,
Planning Secretary

OTHERS PRESENT: Susan Taylor

1. CALL TO ORDER, ROLL CALL AND DECLARATION OF QUORUM

Chair Pollock called the meeting to order at 7:32 p.m., the roll was called, and a quorum was declared present.



2. CHANGES TO THE AGENDA

There were none.

3. APPROVAL OF MINUTES

Ms. Upah-Bant moved to approve the minutes from the August 5, 2010 regular meeting of the Urbana Plan Commission as presented. Ms. Stake seconded the motion. The minutes were approved by unanimous voice vote.

4. COMMUNICATIONS

-  August 5, 2010 Plan Commission Minutes
-  Email from Paul Debevec regarding Plan Case No. 2115-T-09

5. CONTINUED PUBLIC HEARINGS

Plan Case No. 2115-T-09: A request by the Urbana Zoning Administrator to amend the Urbana Zoning Ordinance by adding Section XIII-7, Wind Energy Systems, to regulate the construction and operation of wind energy systems in the City and within its 1½-mile extra-territorial jurisdiction.

Chair Pollock reopened this case. Lisa Karcher, Planner II, presented a brief summary of the proposed text amendment. She reviewed the questions and concerns that the Plan Commission had at the previous meeting. They were as follows:

1. *Why is the City limiting multi-family residential to one wind turbine?* She explained that there does not have to be a limit. For instance the Commission could choose to recommend standards so that non-single-family residential could have more than one wind turbine.
2. *Why is the City limiting the height on roof-mounted wind turbines if it meets the safety, etc.?* As long as they met safety standards the City could allow the height in commercial and industrial uses.
3. *Why is the City prohibiting telecommunications antennas from being attached to wind turbine towers?* After further review of the telecommunications section in the Zoning Ordinance, it states that the City's policy is to favor co-location. City staff could strike the language in the proposed text amendment prohibiting co-location on wind turbine towers. However, wind turbine companies may not want to co-locate on their towers due to maintenance or the actual functioning of the wind turbines.
4. *References to University zoning district.* City staff is working on creating a University Zoning District. However, we could remove the language referring to this district until it has actually been adopted.
5. *Does shadow flicker cause epileptic seizures?* She reviewed a study that shows that the frequency or revolutions per minute that a wind turbine turns does not create seizures.
6. *Houses constructed close to existing wind turbine and making the turbines nonconforming.* Ms. Karcher spoke with John Hall, Planning and Zoning Director at Champaign County. He pointed out that this does not matter in the City of Urbana because although Champaign County's wind turbine standards are based on distances from dwellings, the City's setback standards are based on the distances to property lines. So construction of a house would not trigger any nonconforming status for existing wind turbines.
7. *What standards would be used to review wind turbines being installed in the City's design review districts?* The only districts that would be impacted by review requirements for wind turbine developments would be City-designated historic landmarks and districts. Wind turbine developments would not trigger review in the Lincoln-Busey Corridor, East Urbana Design Review District, or in the MOR Zoning

District. Design guidelines in these districts are triggered by building construction which is intended to insure that existing and new buildings are compatible.

Ms. Karcher stated that these concerns can be addressed in the proposed ordinance however the Plan Commission desires.

Ms. Burris commented that certain neighborhoods applied for design review to keep the neighborhoods the same. Putting a wind turbine in the neighborhood could change the character of the neighborhood significantly. Ms. Karcher replied that essentially the design guidelines that are in place are to ensure that the single-family nature of the neighborhoods are preserved.

Ms. Burris said she would agree with this if there were not rules about the type of roof, the type of windows, etc. If it would just be a matter of residential homes remaining residential homes and not being demolished and redeveloped as multi-family units, then Ms. Karcher's statement would be true. However, there are design guidelines for the actual features of the homes in these districts, so placing a wind turbine on the roof or in the yard will have an effect on the character of a neighborhood.

Chair Pollock noted that East Urbana residents stated during the East Urbana design review public hearing that they know that development is needed and expected and they are not opposed it. They just wanted to make sure that something is not built that would wreck the neighborhood. The Lincoln-Busey Corridor Design Review guidelines are stricter though. So, it may be necessary to address the guidelines for this district to make sure that wind turbines are not something that should trigger review.

Ms. Stake wondered if there are any communities that allow residential turbines. Ms. Karcher answered that wind energy is not new but that technology now allows wind turbines in residential areas. Currently some residential wind turbines are located in the extra territorial jurisdiction (ETJ) area around Urbana. However, there is a cost involved in installing a wind turbine unit, and the payback takes time -- 10 to 15 years. Therefore, she doesn't believe there will be many people installing a wind turbine system. They will also need to have access to sufficient wind flow to make it possible. So the cost of installing a wind turbine system and the return on investment will be weighed. The City of Urbana is fortunate to have great tree cover. But that also makes wind turbine use in the city more costly because they have to be installed higher than the 60-foot tall tree cover.

Ms. Stake expressed concern about the noise level if every property owner on a street installed wind turbine systems. Ms. Karcher said this was something discussed by City staff. That's why each wind turbine is required to meet a noise level at the property line.

Mr. Otto pointed out that the chart on Page 6 of the written staff report dated August 2, 2010 compares the noise level of different situations and activities. He doesn't feel that a wind turbine system would be any louder or noisier than a window air conditioner. A property owner might have several window air conditioners going at one time, and we do not have a right to tell our neighbors that their air conditioners are too loud. So he suspects that while the noise emitted from a wind turbine system maybe noticeable, it is certainly a noise that people can live with. Ms. Karcher commented that shadow flicker and noise are somewhat subjective in that what one person considers noise may not be noise to someone else. Most communities follow the Illinois

Pollution Control Board's standards for wind turbine noise. The language in the proposed text amendment ordinance is modeled after these standards, but it is actually stricter. Some other communities not following the Illinois Pollution Control Board standards set a decibel level at the property line. She has seen it be as low as 40 decibels and as high as 65 decibels.

Ms. Stake asked if there are any homeowners who have wind turbine systems already. Ms. Karcher replied that there are at least two in the ETJ area. She does not know of any actually in the City of Urbana.

Ms. Upah-Bant questioned whether property owners could install satellite dishes if they wanted in the design review and MOR districts. Ms. Karcher said yes. Design review is triggered by new construction or alteration of a principle structure. Ms. Upah-Bant wondered if installing a satellite dish would require a permit. Ms. Karcher did not believe so.

Ms. Upah-Bant noticed that the proposed text amendment did not have a definition for "wind turbine". What is the difference between a wind turbine and an old-fashioned windmill? If she wanted to install a traditional windmill, would it be subject to these same constraints? Ms. Karcher responded that if a person installed a windmill for aesthetic reasons then it would not be reviewed under the proposed standards. If a person installs a windmill to produce electricity, then there would be review to make sure that it is safe and meets the standards.

Mr. Hopkins wondered what is a "development" and what is a "system". Why do we care how many there are per property? Ms. Karcher stated that "system" is short for any individual wind energy system. "Development" is more than one system in one place. She noted that some communities do not have a limit on the number of systems on one property because a property owner is restricted by lot size as well as noise and shadow flicker requirements. This is an issue that is up for discussion.

Mr. Hopkins pointed out that a vertical axis system can be within 10 feet from the ground. Many people can dunk a basketball in a goal at 10 feet 6 inches, so this strikes him as being potentially problematic. Ms. Karcher mentioned that this is a standard she found in reviewing different ordinances and documents. The purpose is that most of the vertical axis systems are shorter because wind turbulence does not affect them like a horizontal axis. People use vertical axis systems to cut down on costs. If the City feels like 10 feet is too low or there is a danger then a higher height can be required.

Chair Pollock recapped that a vertical system does not have big blades. Ms. Karcher described it as being like an egg beater. She referred to page 2 of the August 2 staff memorandum. The picture on the bottom left hand corner shows a vertical axis system. She explained that a person may need more than one vertical axis system because they do not create as much energy.

Mr. Hopkins noted that there is a residential service area option but not a commercial service area option. Ms. Karcher stated that utility tower mounted systems are restricted to AG (Agriculture) and IN (Industrial) zoning districts. At the previous meeting, the Plan Commission discussed allowing utility tower-mounted systems in the commercial zoning districts as well. By allowing utility-mounted wind towers in the commercial areas, we allow very large wind turbines. In looking at the Urbana zoning map and where our business districts are located and their size, the utility-mounted towers would be limited. Mr. Hopkins clarified that he is against

expanding utility-mounted towers to commercial areas, but he is in favor of providing a commercial service area option.

Mr. Hopkins asked Ms. Karcher to identify key differences between the City of Champaign's wind turbine ordinance and the proposed text amendment. Ms. Karcher mentioned that it is hard to compare the two because the two cities look at things differently. But in residential districts, the City of Champaign allows a maximum height of 100 feet and a rotor diameter of 50 feet, while Urbana's could allow 120 feet in height and 30 feet in rotor diameter as long as it meets setback requirements. Another difference is that the City of Champaign allows towers in non-residential districts, and over 1,000 feet from residential, to build a 175 foot tower with a rotor diameter of 100 feet. Urbana would similarly allow a maximum 175 foot height but has a maximum rotor diameter of 70 feet. In Champaign, a special use permit can allow systems taller than 175 feet in commercial and industrial zoning districts. In Urbana, the districts for taller systems would be limited to AG, IN, and CRE. So as far as standards the differences between Champaign's and Urbana's standards would be districts allowed as well as maximum height and rotor diameter.

Mr. Hopkins inquired about how the City of Champaign's ordinance deals with wind turbine noise. Ms. Karcher answered that the Champaign's noise level is based on the Illinois Pollution Control Board's standards. Urbana's draft ordinance is stricter in one regard because in addition to looking at the decibel level, City staff is proposing to limit low frequency noise as well. She commented that to some extent this will be a learning experience because not enough turbines are yet in place to understand their impacts. Over time the City may need to amend its ordinance to deal with what is being encountered.

Mr. Hopkins asked whether the City of Urbana has sound regulations on anything else. Ms. Karcher responded that there are noise standards in the City Code (Chapter 16). It basically deals with "nuisance noise." The City's Legal Department plans to work on a noise ordinance because the issue has come up with different commercial development. In cases of industrial and commercial, the City follows the Illinois Pollution Control Board's standards.

Mr. Hopkins wondered how the proposed ordinance might affect the University's wind turbine proposal. Is the inclusion of the University District, even though it does not yet exist, matter to the University of Illinois' proposal? Ms. Karcher explained that the reason for including the University Zoning District reference would be to allow them to operate wind turbines on properties annexed in the City and zoned University Zoning District. City staff is looking towards the future.

With no further questions from the Urbana Plan Commission for City staff, Chair Pollock opened the meeting to public input. No one indicated they wished to provide comments. Chair Pollock then closed the public input portion of the meeting and opened the meeting to Plan Commission discussion and/or motion(s).

Chair Pollock summarized the questions and issues raised by the Plan Commission.

Ms. Karcher then addressed issues raised in the email from Paul Debevec distributed tonight to Commissioners. The first issue concerns setback requirements. Ms. Karcher explained that the proposed text amendment requires a setback equal to the height of a tower. Under state law

municipalities cannot require setbacks from the user's property line greater than 1.1 times the height of the system. The second concern is about the proposed noise level. Ms. Karcher recapped that the draft ordinance follows the Illinois Pollution Control Board's standards, which is what is required of any other noise producer in the city. The Plan Commission has the option to change this if they so desire. The third concern deals with maintenance. Ms. Karcher stated that maintenance is indeed a big issue. A person cannot install a wind turbine and expect to have no maintenance. A lack of maintenance will cause increasing noise over time. Maintenance standards are included in Section K (page 8). Enforcement would be on a complaint basis.

Mr. Otto asked how well the Illinois Pollution Control Board standards are kept up-to-date in terms of latest technology. If we generally refer to their standards for noise level will our regulations become outdated as technology changes? Ms. Karcher said that City staff will have to do further research. She does not know enough about the Illinois Pollution Control Board's process to answer this question.

Mr. Otto asked if noise standards are always based on the manufacturer's laboratory testing. Ms. Karcher replied that part of the problem is that the wind energy systems are new enough that there are not any noise ratings or standards. In time there will be some organization that will review and set up standards. We are starting to see noise or sound ratings being placed on wind turbines, but not all of them have it yet. It then becomes a question of what standards are they using to rate the sound level. Champaign County decided to make it a requirement for people to purchase wind turbines that have specific ratings on them. This is how they document that the wind turbines meet their standards.

Mr. Otto commented that a person may be permitted to install a wind turbine system, the City measures the noise level with a decibel meter and then tells the person whether he/she can keep the wind turbine or take it down. Ms. Karcher agreed that essentially it becomes an after-the-fact code compliance.

Chair Pollock asked the Plan Commission members how they wished to proceed. Mr. Hopkins stated that he did not think the proposed text amendment was close enough to be written in commission meetings. He suggested that they identify a set of requested changes for City staff.

Chair Pollock then summarized the following as discussed tonight.

1. *Limits on the number of wind turbines allowed on buildings.* The Plan Commission agreed that there should not be any limits on the number of wind energy systems per building or per development in any zoning district.
2. *Allow co-locations of other utilities on wind turbine towers.* The Plan Commission agreed that they should allow placement of telecommunications equipment on wind turbines as long as it is safe.
3. *Remove the reference to University Zoning District from the proposed text amendment.* The Plan Commission agreed that it should be removed until such time that a University Zoning District classification exists.

4. *Define wind energy production.* Mr. Otto pointed out that “wind energy system” is already defined on page 2 of the proposed ordinance. Mr. Hopkins noticed that the definition left out direct mechanical pumping; however, he realizes that most wind energy systems are used to generate electricity. So, there was no change to the definition.
5. *Add a commercial service area option?* The Commission agreed that City staff should add a commercial service area option for commercial, industrial and agricultural zones and keep it distinct from utility-tower mounted systems to limit the size of the towers.
6. *Reference to Illinois Pollution Control Board’s standards.* The proposed text amendment is stricter than what is required by the Illinois Pollution Control Board. City staff should research the Illinois Pollution Control Board’s procedures to see if their standards are updated as new technology is discovered.
7. *Debevec Email.* Chair Pollock remarked that he is comfortable with Ms. Karcher’s response. The Plan Commission agreed.
8. *Design Review Districts.* Ms. Karcher stated that City staff will discuss this issue and bring back a recommendation at the next scheduled meeting.

With no further discussion, Chair Pollock continued this case to the next scheduled meeting.

6. OLD BUSINESS

There was none.

7. NEW PUBLIC HEARINGS

There were none.

8. NEW BUSINESS

There was none.

9. AUDIENCE PARTICIPATION

There was none.

10. STAFF REPORT

Jeff Engstrom reported the following:

- ✚ The Residential Recovery Center County Text Amendment was approved by the Urbana City Council as recommended by the Plan Commission.
- ✚ The Multi-Text Amendment to the Urbana Zoning Ordinance was approved by the Urbana City Council as recommended by the Plan Commission.

- ✚ The East Urbana Design Review District Text Amendment amending the boundary of the district was approved by the Urbana City Council as recommended by the Plan Commission.

11. STUDY SESSION

There was none.

12. ADJOURNMENT OF MEETING

The meeting was adjourned at 9:13 p.m.

Respectfully submitted,

Robert Myers, AICP, Secretary
Urbana Plan Commission