

 <p style="text-align: center;">Council Communication Office of the City Manager</p>	Date: June 28, 2010
	Agenda Item No. 49 Roll Call No. <u>10-1045</u> Communication No. <u>10-388</u> Submitted by: Phillip Delafield, Director, Community Development

AGENDA HEADING:

Public Hearing on an ordinance regulating Small Wind Energy Conversion Systems (SWECS).

SYNOPSIS:

The proposed ordinance would amend Chapter 134 of the City Code to allow consideration of Small Wind Energy Conversion Systems (SWECS) as a Conditional Use by the Zoning Board of Adjustment. The proposed ordinance is based upon a model ordinance that was prepared and recommended by the Metropolitan Advisory Council (MAC). Please refer to the Additional Information section of this report for proposed local amendments to the model ordinance. Staff recommends approval of the ordinance.

FISCAL IMPACT: NONE

Amount: N/A

Funding Source: N/A

ADDITIONAL INFORMATION:

The Metro Advisory Council was formed in 2001. The MAC is comprised of two Supervisors from each of the following counties and the Mayor and a Council member from each of the following cities: Dallas County, Polk County, Warren County, Altoona, Ankeny, Bondurant, Carlisle, Clive, DeSoto, Des Moines, Grimes, Indianola, Johnston, Mitchellville, Norwalk, Pleasant Hill, Polk City, Waukee, West Des Moines and Windsor Heights.

On August 11 and September 8, 2009 the MAC formed a Wind Energy Systems Technical Committee to receive input and information from MAC entities and to consider and make a recommendation regarding an ordinance that would provide some consistency and fairness in wind energy conversion system rules and regulations metro-wide.

A presentation regarding the Small Wind Energy Conversion Systems Model Ordinance was made at the Des Moines City Council Workshop on April 12, 2010. The Council directed staff to prepare the ordinance for review and recommendation by the Plan and Zoning Commission and consideration by the Council at its earliest convenience.

Per Exhibit “A” (see attached), Small Wind Energy Conversion Systems have a nameplate rated capacity of up to fifteen (15) kilowatts for residential uses and districts and up to one hundred (100) kilowatts for commercial and industrial districts where the system is incidental or subordinate to a principal use on the same site.

Small Wind Energy Conversion Systems would be subject to issuance of a Conditional Use Permit by the Zoning Board of Adjustment. The Board of Adjustment would review all applications for compliance with Section 134-1280 (new).

Under Section 134-1280[C], the Zoning Board of Adjustment shall consider color, maintenance, safety, noise, shadow flicker, electromagnetic interference, existing easements, accessory use and feasibility when considering all proposed systems.

In addition, Section 134-1280[D] provides general regulations for the following:

- Maximum number of systems per lot
- Requirement of monopole installation for freestanding systems
- Prohibition of lighting unless required by FAA regulations
- Prohibition of signage
- Requirement for climbing prevention features
- Prohibition on the reduction of required parking
- Requirement for utility notification
- Compliance with interconnection and operation requirements set by the Iowa Utilities Board
- Provision of safety controls (i.e. automatic and manual braking, governing or feathering system)
- Provision of a shut off
- Requirement of engineering certification by an Iowa licensed professional engineer; and
- Requirement for installation according to manufacturer’s specifications and compliance with applicable building and electric codes.

Finally, Section 134-1280[E] provides bulk regulations for Small Wind Energy Conversion Systems including minimum setback, maximum height, minimum lot size, blade clearance, location, responsibility of the owner/operator to obtain any covenants, easements or similar documentation to assure or protect access to sufficient wind, and requirements for removal of inoperative SWECS.

The proposed Small Wind Energy Conversion Systems Ordinance for the City of Des Moines Ordinance includes the following revisions to the model ordinance that was recommended by the MAC:

- Sections 134-1280 [C][3] and [10] prohibit the use of a SWECS for advertising purposes. This modification was made in response to an example cited by another metro jurisdiction where a row of red, white and blue windmills were proposed to attract attention for advertising purposes.
- Sections 134-1280[C][5] and [E][1][b] were modified to address the problem created by the requirement for some building mounted SWECS to overhang the exterior walls of the building. In the downtown area that will place the system within the airspace over the right-of-way. Staff believes the Des Moines City Council will want to accommodate such systems, provided the building has an awning or other means to protect the pedestrians on the sidewalks below from any falling ice.
- Section 134-1280[C][7] was modified to limit the prohibition against Shadow Flicker. At sunrise and sunset, any tall structure will cast an extremely long shadow. There are very few sites in any urban area where the shadow of a tall structure will never fall upon a residential building. The prohibition has been converted to a guideline by making it a "should" for consideration by the

Board of Adjustment. The scope has also been narrowed to only consider Shadow Flicker cast on the windows on existing dwellings.

- Section 134-1280[C][6] was modified to reference the City's Noise Control Ordinance; and
- A requirement the owner/operator to provide liability insurance was eliminated. The City does not require insurance for any other structures or uses under the zoning ordinance, including uses far more dangerous than a SWECS. (racetracks, rodeos, etc.) The City does not have the resources to monitor and administer such a requirement.
- A provision authorizing the City to remove abandoned wind turbines was replaced with standard language regarding abatement of nuisances.

Existing Section 134-64[4][a] of the City Code authorizes the Board of Adjustment to permit Exceptions to any setback, area, length, width, height, yard, size or projection limitation provided that the relief that does not exceed 50% of a particular limitation. Staff will advise that a conservative approach be taken with any request for exceptions to such provisions in the Small Wind Energy Conversion Systems Ordinance.

Should the City of Des Moines wish to consider a "wind farm" application within the City limits, staff recommends that such application be subject to the provisions of the PUD Planned Unit Development District contained in Chapter 134, Division 13 of the City Code.

PREVIOUS COUNCIL ACTION(S):

Date: June 14, 2010

Roll Call Number: 10-908

Action: Set date of public hearing on Zoning Ordinance text amendment, Chapter 134, to allow consideration of Small Wind Energy Conversion Systems (SWECS) as a conditional use by the Zoning Board of Adjustment. Moved by Hensley to adopt. Motion carried 7-0.

BOARD/COMMISSION ACTION(S):

Date: May 20, 2010

Roll Call Number: 10-2010-5.02.

Action: Plan and Zoning Commission recommended approval of the proposed ordinance by a vote of 13-0.

ANTICIPATED ACTIONS AND FUTURE COMMITMENTS:

Second and third consideration of the ordinance unless waived by the City Council.

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