



**PLANNING & ZONING COMMISSION**

City of Johnston  
6221 Merle Hay Road, Johnston, IA 50131

Minutes  
Regular Meeting: Monday, March 8, 2010

**AGENDA:**

**1. Call to Order**

Robertson called the meeting to order at 7:00 p.m.

**2. Roll Call**

	Robertson	Wiskirchen	Temple	Moran	Jeske	Petersma	Johnson
<b>Present</b>	X	X		X	X		X
<b>Absent</b>			X			X	

**City Staff Present:** David Wilwerding

**3. Approval of Agenda**

Robertson called for a vote to approve the agenda.

	Robertson	Wiskirchen	Temple	Moran	Jeske	Petersma	Johnson
<b>Aye</b>	X	X		X	X		X
<b>Nay</b>							
<b>Abstain</b>							

**4. Approval of Meeting Minutes:** Regular Meeting February 8<sup>th</sup>, 2010.

Robertson called for a vote to approve the minutes of February 8<sup>th</sup>, 2010.

**Roll Call Vote:**

	Robertson	Wiskirchen	Temple	Moran	Jeske	Petersma	Johnson
<b>Aye</b>	X	X		X	X		X
<b>Nay</b>							
<b>Abstain</b>							

**5. PZ Case No. 09-17; Small Wind Energy Conversion Systems Ordinance; Consider an ordinance regulating Small Wind Energy Conversion Systems.**

David Wilwerding presented the staff report.

Robertson asked if this limits the systems to lots of an acre or more in size. Wilwerding replied yes. Robertson asked if there were any laws that would prevent the city from restricting it. Wilwerding replied no.

Moran asked about the justification for a one acre minimum lot area, which removes these systems from being used on most properties in the city. There are smaller lots that are still potentially large enough to place a system and restricting them to the rear yard further restricts the properties that could use them.

Wilwerding explained that the ordinance was intentionally crafted to be conservative. There are two schools of thought on these systems. The two extremes the say that there is a need to be green and allow these as much as possible and the other is that these need to be out in a field away from everything and be part of a wind farm. There are limitations to using these systems in cities, there are trees and buildings that restrict wind flow, the larger systems do not fare well in an urban environment. The smaller systems have advanced a lot in the technology but there are still questions about whether there is a return on investment on them. There is a tax rebate from the government at the moment that is encouraging people to install them. The idea of this ordinance is to be conservative but then as technology changes or more information is available it could be amended to allow systems on smaller lots or allow more height in the future.

Johnson asked where the 150% figure for setbacks came from. Wilwerding noted that the original ordinance figured the setback based on 110% but there were members of the ordinance committee that were concerned about ice throw and shadow flicker, so it was expanded. The committee decided to be conservative, but there are ordinances out there that use 110% and if desired the ordinance can be amended to that.

Robertson asked if there are ordinances that restrict the systems to acre or larger lots. Wilwerding replied that that is how the model was drafted, both Polk County and West Des Moines had ordinances in place that restricted them to one acre or larger lots. It is a common restriction.

Moran noted that Northglenn has sufficient common area to place a system. Wilwerding explained that there are commonly owned areas in associations that could allow for placement. Originally there was a provision in the ordinance that could allow neighbors whose combined lots would meet the area requirements to jointly put in a system. However, MidAmerican will only allow hookup to the grid if there is a single meter, so that language was removed. A townhome association could use it for commonly held items such as powering street lights or exterior unit lights.

Moran noted that some systems are restricted from residential properties, but churches for example are allowed in every zoning district, will the restriction be based on the zoning or the use. Wilwerding replied that the ordinance bases it upon use, so an institutional use like a church or school would not be restricted as a residential use would be. Moran asked about a residential property used as a church. Wilwerding noted that such a property would still need to meet setbacks, lot size, and all other requirements. The concern that a large system would be put on a small lot is largely dealt with by the setback requirements.

Wiskirchen asked about the cost of a 15 kilowatt system at present. Wilwerding replied that the cost is about fifteen to twenty thousand dollars, they have come down significantly over time as the technology improves and the amount of electricity generated increased. It used to be that the cost was prohibitive because it was difficult to get a return on the investment. It is still difficult to do that but is much closer than it used to be, with the tax rebate in place it may be possible. There have not been many inquiries about these systems as yet but as technology continues to improve staff expect to receive them.

Jeske noted that the vertical one almost look like a lawn sculpture or art for example the one at the Hope Church in West Des Moines. Robertson asked how tall that one is. Wiskirchen estimated about fifteen or twenty feet tall. Robertson expressed concern about limiting such systems to large lots, if a residential property has sufficient wind coming across the property why couldn't they have a system like that if it is only fifteen feet tall and looks nice. Wiskirchen replied that the city has to start somewhere, as technology continues to approve and the size continues to come down the city can revise the ordinance. This ordinance is nice because it will ensure some consistency across the metro area.

Johnson expressed concern that the ordinance was clearly written with the 15 kilowatt systems in mind for residential properties, but what about smaller hobby systems that are smaller and maybe generate a kilowatt or so. Could there be an exception for such smaller systems. Wilwerding replied that currently there is no such exception in the ordinance, a system like that would still have to comply with all the requirements. The smaller the system of course the more options there are for placement, but there is no exemption for systems below a certain size or capacity.

Robertson asked about average house electrical usage. Johnson commented that he was trying to assess that himself, based on 15 kilowatts would amount to about a 682 amp service to the home. He has concerns of why artificially cap the size based on the amount of energy generated, as the technology improves and smaller systems are able to generate more energy, perhaps the restriction should just be based on the physical size of the system rather than output.

Wilwerding noted that the committee originally started without a kilowatt restriction and just looked at blade size initially but that was determined to be arbitrary. As you look at what is available on the market today, you see systems up the the 15 kilowatt category and then beyond that you are into much larger systems and so that is why the 15 kilowatt standard was used for residential systems.

Moran suggested that someone wishing to put a system on a smaller lot could try to use the variance process. Johnson replied that that seems like a lot of hoops for an owner to jump through for a small system.

Wilwerding noted that city staff could explore whether there are any exemptions for smaller systems in other ordinances.

Moran stated that this is a starting point, in all likelihood this will need to be revisited every year or two as technology continues to improve. Wilwerding agreed and noted that the committee has realized it will need to continue to meet on an annual basis to review changes.

Greg Andrews, 9500 NW 67<sup>th</sup> Avenue, has been a Johnston resident since 1990. . He would like to be able to put up a small wind turbine to see if the technology works and what the

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potential problems are with it, however as proposed the ordinance would prohibit him from putting up such a system because while he has a five acre lot and sufficient room to do it, he could not attach the system to the roof of his garage as he would like to do. The city's concern isn't the power output, it is aesthetics. Engineering restrictions are understandable for safety but this ordinance restricts their use in most of the city. Saying it can be made more permissive later is the wrong approach and he would like to see an exemption for very small systems.

Moran asked if the ordinance requirements could be eased for smaller systems. Wilwerding responded that city staff will need to research it, this was not something that was discussed by the ordinance committee. Moran suggested that maybe the defining issue would be whether it is connected to the grid. Wilwerding explained that if the system is connected to a building that is connected to the grid it must be interconnected by MidAmerican. If a building is not connected to the grid there would be no problem other than the proper building permits would be needed. The concern for MidAmerican is that there could be a property backfeeding electricity to the grid during a power outage while crews are trying to service lines.

Wilwerding noted that the building inspectors on the committee felt strongly that an interconnect agreement would be necessary with MidAmerican even if it were a case of one outlet being connected solely to the SWEC while all others were on the grid. The reason for this was that an owner could easily go in and rewire the system without notifying the city or MidAmerican of doing so. An interconnect would not be needed only if the SWEC were connected to a structure that is not connected to the grid.

Wiskirchen asked if this applies to someone powering lights to a fountain in the yard or using it to charge batteries. Wilwerding replied yes. Moran noted that the setback requirements would still apply anyway.

Johnson explained that he feels that there should be some exemption for hobbyists that are not connecting to the grid. Wiskirchen suggested an exemption below a certain wattage with specific regulation that the system will not be connected to the grid.

Moran noted that cost will restrict a lot of small usage, someone wanting to do this to charge batteries is going to find it much more economical to just buy a new battery.

Jeske expressed concern about keeping up with the technology.

Johnson expressed a desire to change the lot size requirement and rather than using one acre using 40,000 square feet as the minimum lot size.

Wiskirchen commented that if an exemption are added for hobbyists there need to be guidelines setting maximum sizes and power generation so that the exemption is not abused and is kept small. Wilwerding suggested that there might be a set of systems that would be allowed by right – if certain conditions are met, the special use permit would not be required although any relevant building permits and review would be.

Wiskirchen inquired what other communities are saying about this issue. Wilwerding indicated he will check with the other metro communities that are discussing this ordinance.

Jeske suggested if this passes that city staff set a meeting six months after the ordinance takes effect to review the issue.

**6. Other Business**

Wilwerding provided the Commission with copies of the Johnston Development Guide printed by the Business Record.

Wilwerding advised that there will be a neighbor meeting for the development of PUD zoning for the Roughwood area. At the moment city staff are focusing on public education with the property owners – what is a PUD, what can be included, what can't be included, etc.

Wilwerding advised the Commission of upcoming applications for review.

On Tuesday, March 30<sup>th</sup>, there will be a public meeting on the Comprehensive Plan update and on March 31<sup>st</sup> JEDCO will hold its annual development forum.

City staff are discussing flood preparations in light of predictions of upcoming flooding.

Wiskirchen asked about a park study for the gravel pits area east of NW Beaver Drive for the Comprehensive Plan. Wilwerding advised that it will be reviewed and there will definitely be a component in the Comprehensive Plan about it but to what level is to be determined.

Moran commented that the area east of the Des Moines River could have potential for a sports complex, it is open fields now and could easily be made into soccer or baseball fields.

**7. Adjournment.**

The meeting adjourned at 8:14 p.m.

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Dick Robertson, Chairman

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David Wilwerding, Secretary

