MINUTES OF THE REGULAR MEETING OF THE WEST JORDAN PLANNING AND ZONING COMMISSION HELD JULY 17, 2012 IN THE WEST JORDAN COUNCIL CHAMBERS

PRESENT: David McKinney, Dan Lawes, Nathan Gedge, John Winn, Jesse Valenzuela, and Lesa Bridge. Ellen Smith was excused.

STAFF: Tom Burdett, Greg Mikolash, Jennifer Jastremsky, William Bailey, Robert Thorup, Mark Forsythe, and Julie Davis

OTHERS: Rod Glover, Ryan Glover, Sarah Wright, and Mark Richards.

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The briefing meeting was called to order by David McKinney.

The agenda was reviewed. Jennifer Jastremsky distributed information regarding building permit requirements. There will also be people in attendance to take questions from the Commission regarding wind and solar energy. She gave an update of what kind of information they have found from other cities. Height limits were briefly discussed.

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The regular meeting was called to order at 6:04 p.m.

1. Consent Calendar

Approve Minutes from June 19, 2012

MOTION: Nathan Gedge moved to approve Consent Calendar Item #1 the minutes from the June 19, 2012 meeting. The motion was seconded by Dan Lawes and passed 6-0 in favor. Ellen Smith was absent.

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2. Text Amendment – Amend the West Jordan Municipal Code Title 13 Zoning Ordinance to allow for alternative energy systems, and more specifically covering wind and solar energy systems. The text amendment will add 10 new definitions to the code as well as a new section, 13-8-21, covering requirements for the alternative energy systems. Also affected will be the use charts for all zoning districts; City-wide applicability; City of West Jordan (applicant) [#TA20120006]

Jennifer Jastremsky said the item was previously heard in June and changes were made to the legislative copy based on that discussion. She proposed an additional change because the Division of Wildlife Resources prefers to not be a part of the approval process, but would be available for consulting. Section 13-8-21-C1-d1 is proposed to read:

> "Due to potential wildlife conflicts, any wind energy system proposed to be located west of the Bonneville Shoreline Trail, as depicted on the West Jordan Land Use Map or east of the North Jordan Canal shall consult with the Utah Division of Wildlife Resources. Proof of such consultation shall be submitted to the City and shall be a requirement of Conditional Use Permit application or building permit application if a Conditional Use Permit is not required. The Planning Commission or Zoning Administrator may require any recommended modifications proposed by the Utah Division of Wildlife Resources during permit review."

At the June meeting the Planning Commission also asked for a comparison with codes from other cities and to see how the codes are working. The main conclusion is there have been so few applications that it is hard to know if the ordinance is working well or not. Most cities do not allow the wind turbines in residential districts but are mostly in industrial zones and the solar energy systems are in industrial and commercial zones. So far

there have been no complaints; probably due to the zones in which they are placed. Height limits vary dramatically depending on the municipality. Weber County allows for a 70-foot tall wind system and they allow them in residential zones. She showed a photo of a 39 ½-foot tall turbine on a hillside in that county. She stated that Rod Glover with Windwest Power and Glover Nursery, Sarah Wright who is the Executive Director of Utah Clean Energy, and Mark Richards with Intermountain Wind and Solar were in attendance to provide information and answer questions.

Based on the findings set forth in the staff report, staff recommended that the Planning Commission discuss and forward a positive recommendation to the City Council for the proposed text amendment allowing alternative energy systems within all zoning districts as permitted and/or conditional uses and providing specific criteria for alternative energy systems.

David McKinney said there was a discussion at the prior meeting regarding permitting requirements. He asked if the text had any changes in that regard.

Jennifer Jastremsky said she removed some of the conditional use and administrative conditional use permits in the use chart, but the small wind systems are still conditional in the residential zones and the ground-mounted solar energy systems are administrative conditional with all others as permitted. She took out references to building permits and combined the specific review criteria for wind and solar. These types of systems do require a building permit, which Bill Bailey, West Jordan Building Official can address.

David McKinney asked for an outline of the standard permit requirements for this range of installations.

Bill Bailey compared residential to commercial. If you are doing work on your own home, including wind turbines and solar panels, you can do that work yourself without the need for a contractor. However, you still need a building permit so it can be inspected. Anything on a commercial property is required by state law to have a licensed contractor for that particular discipline.

David McKinney asked if permitting would change depending on the type of systems.

Bill Bailey said the National Electrical Code, which is adopted by the state, requires permits for all of the systems. The inspections check for proper grounding, for installation of an interactive inverter if you are connecting to utilities, and checking to ensure whatever is mounted is secure and that the roof load isn't maxed out. The inspection is required by the NEC and allows us to make sure it is installed properly.

Rod Glover, Glover Nursery, 9275 South 1300 West, said his company had solar panels installed at their business a year ago as well as efficient lighting. His cost was $40,000 with a $12,000 government rebate and $1,000 credit with Utah State. He saved $500-$600 last year, so it isn't a money-saving thing, but they want to be green. He has been involved with Windwest Power for about five years as they have developed a new windmill. He showed a test video of the product in Boulder, Nevada. At 40 mph it generates up to 5000 watts. They are hoping to install and sell these 5.5 kilowatt generators at the nursery. The video shows a 15-foot tall windmill with a casual breeze, but they will recommend a 20-foot tall turbine. It makes no noise and doesn't affect any birds. He felt that this windmill will revolutionize the industry. Richard Steinke only does things efficiently and with the best product on the market. A traditional windmill is only 20% efficient, so Mr. Steinke developed an efficient windmill that is totally recyclable with polyurethane blades. He knows all about net metering.

Lesa Bridge asked what the ballast and pole are made of.

Rod Glover said the ballast is aluminum and the generator fits inside of it. The pole is made of steel. Blades are 6' wide and at 5 mph it produces about 1000 watts. He explained the generators and how the blades catch wind instead of chopping through it. He would like the opportunity to install one.

David McKinney asked how these blades are less harmful to birds.

Rod Glover said they are contoured, so they accept the wind and it kicks off at a 45-degree angle, which kicks the birds off to the side. Mr. Steinke has plans for a megawatt, which will be 30 feet wide and 65-80 feet tall, so with that concept he could envision urban wind farms.

David McKinney asked about the level of efficiency.

Rod Glover said this is 60-80% efficient. It is a different concept that attracts wind, so it is a different comparison. These windmills will turn slower since the generator is designed to take the torque. This will generate power at 5 mph where other models have to be 8-10 mph to produce very minimum power.

David McKinney asked about maximum wind events.

Rod Glover said the generator producer doesn't want it to generate past 6500 watts, so it has a braking system that shuts it down and turns it back on when the wind slows down. Their generator also produces power as it slows down. The installed price with everything is $30,000, but if it is all true it will pay for itself.

Dan Lawes noted that the proposed ordinance states the blade color has to be gray, black or neutral subdued tones.

Rod Glover said he has green trees in the nursery and these blades are green. They are being used mostly by the ocean where there are palm trees, but they could be any color.

Sarah Wright, Executive Director of Utah Clean Energy, 1014 Second Avenue, Salt Lake City, said they are a non-profit public interest group that works to stop energy waste and helps people to be more efficient, and Mark Richards, Vice President of Business Development for Intermountain Wind and Solar, 1953 West 2425 South, Woods Cross, electrical and general contractor.

Sarah Wright felt that West Jordan is being extremely proactive in putting together ordinances to allow for different clean energy sources. She noted that Utah Clean Energy, Salt Lake City, West Valley City, Salt Lake County, Summit County, Park City and Midvale are all working together as part of a Department of Energy project to look at solar ordinances and permitting. They will be able to offer support in this area. Hardware costs for solar energy have been lowered and by having streamlined permitting that is consistent across states will drive down the non-hardware costs. She felt that the draft ordinance was very good, and only had a couple of concerns. She thought that some of the height restrictions were limited and suggested that they look at Salt Lake City's ordinance that allows for 3 feet over the maximum height for the home and they can be 12 feet above the surface of the roof. There is a state statute that prevents HOA's and other private groups from having overly restrictive guidelines that prevent solar development and could be referenced. Also, she wasn't sure if the requirement for a neutral color would allow for the black or blue solar panels which are most common. Right now there are 1300 net metered customers (people who send power back into the grid system) and many are solar. She suggested that our code that restricts them from side yards or corner lots be reconsidered to ask that the first choice for the location is where it isn't visible, but then they can go from there in order to provide for the south exposure. There are some cities that have the wind for schools projects, which are in residential neighborhoods. She understood the height requirement restrictions, but stated that the output of energy from a wind turbine increases dramatically with the height, so it has to be above the turbulence to work. She wondered if there could be language that allows for certain exceptions with a conditional approval. To avoid the wind

turbulence issue, and working with the setback from property line she suggested they also consider signed easements. She referred to the publication *In the Public Interest* that addresses different ways to handle setbacks and heights to protect citizens and still allow the systems.

Jennifer Jastremsky said she would send the commission a PDF version of that document.

Mark Richards also said that the handout answers other questions, dealing with things such as birds. He answered questions about the number of permits that have been issued in the state. Utah isn't very windy so there have been very few of the wind systems so the photovoltaic solar seems to make more sense. He has done more than 200 installations and he is just one of a dozen installers. He said there have been 1300 people in Utah who are served by Rocky Mountain Power that got net metering (not off the grid).

Sarah Wright guessed that there would be about 900 permits in the Wasatch Front area.

Mark Richards said his business is split evenly between residential and commercial installations. He said that in the last two years the hardware is half the cost of what it used to be. For every net meter that they install they have to submit documents to the power company and request the right to push power back and forth between the home and the power company. The smart inverters are a UL requirement.

There was a brief explanation of the Blue Sky program through Rocky Mountain Power and some community projects that are funded through grants.

Sarah Wright didn't think there had been any permits for wind systems in residential areas.

There was a brief mention of the State Law in Title 54 (net metering) that requires the utility to accept excess generation on a kilowatt hour for kilowatt hour credit.

Rod Glover noted that there is a windmill in South Jordan that is shown on windenergy.com.

David McKinney asked how much noise his specific wind system makes and if they have numbers to verify it.

Rod Glover said theirs is silent. He stood by a 30-foot pole and you really don't hear anything. He will have the numbers when their delivery comes in.

Mark Richards said on a standard wind turbine, if you were able to sit on top it is at 64 dba and at 100 feet away it is 4 dba, which is less than the noise in your car.

Height limitations were further clarified.

Mark Richards said when they install wind systems they like to be 300 feet away from a building and 30' higher than the height of the building so they can have access to the wind.

David McKinney said that is probably why they don't have a lot of wind turbines in residential areas.

Mark Richards asked for clarification regarding the requirement to screen utility and mechanical equipment on ground-mounted solar energy equipment.

David McKinney said screening is to hide the equipment from view.

Jennifer Jastremsky said that specifically references another part of the code that addresses screening of ground-mounted utility equipment, dumpsters, etc. So anything besides the actual system would need to meet the same

screening requirements that any other utility would need to meet. It is not referring to any roof-mounted equipment that would naturally be visible because of its size.

Mark Richards applauded the efforts of West Jordan in being forward-thinking.

Further public comment was closed at this point for this item.

David McKinney said the suggestion had been made to ease the restrictions on setbacks, but given the rarity of wind energy systems he would leave it as written. If a situation comes up at a later date that proves it is too restrictive then the commission can address it at that time. Regarding the reference to neutral colors, he felt it was vague. Since some of the solar panels tend to have metal and reflective materials he wasn't sure that condition would work.

Greg Mikolash suggested that they remove the reference to color.

Jennifer Jastremsky noted that both the wind and solar sections make reference to color.

Lesa Bridge said there could be a caveat to state that neutral colors be used where possible.

Greg Mikolash didn't think colors would be a problem, so they could just go with what the industry provides.

David McKinney also felt that the restriction in subsection D3a should remain as written, which is primarily an aesthetic issue. A solar energy system could still be mounted on a roof if it can't be located in the yard.

Lesa Bridge said it is also a visibility issue for traffic.

MOTION: **Dan Lawes moved to forward a positive recommendation to City Council for a text amendment to allow alternative energy systems within all zoning districts as permitted and/or conditional uses and providing specific criteria for alternative energy systems as discussed in the legislative copy, adding the language by staff in Section 13-8-21-C1-d1: "Due to potential wildlife conflicts, any wind energy system proposed to be located west of the Bonneville Shoreline Trail, as depicted on the West Jordan Land Use Map or east of the North Jordan Canal shall consult with the Utah Division of Wildlife Resources. Proof of such consultation shall be submitted to the City and shall be a requirement of Conditional Use Permit application or building permit application if a Conditional Use Permit is not required. The Planning Commission or Zoning Administrator may require any recommended modifications proposed by the Utah Division of Wildlife Resources during permit review." Also striking the references to colors in subsection C-1-b and D-1-a. The motion was seconded by Nathan Gedge and passed 6-0 in favor. Ellen Smith was absent.**

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Tom Burdett gave an update on recent City Council actions.

MOTION: **Nathan Gedge moved to adjourn.**

The meeting adjourned at 7:13 p.m.

David R. McKinney
Chair

ATTEST:

JULIE DAVIS
Executive Assistant
Development Department

Approved this _____ day of _____, 2012