## **BOONE COUNTY PLANNING & ZONING COMMISSION WORK SESSION**

BOONE COUNTY GOVERNMENT CENTER, CONFERENCE ROOM 301 801 E. WALNUT, COLUMBIA, MISSOURI (573) 886-4330

Minutes 4:30 P.M. Thursday, April 11, 2019

Commissioners Present: Carl Freiling, Greg Martin, Rhonda Proctor, Fred Furlong, Jeff McCann, Steve Koirtyohann, Bill Lloyd, Boyd Harris (arrived 4:38)

Staff: Stan Shawver, Bill Florea, Thad Yonke, Uriah Mach, Paula Evans

Stan Shawver made introductions and distributed packets for the April 18, 2019 meeting.

Stan Shawver stated that staff has researched wind farm regulations from the states of Iowa and Kansas and have identified issues across the country. Mr. Shawver handed out a list of concerns to be addressed. These items include: Definition of a wind farm, location, separation between units, height, setbacks from property lines, residences, natural resources, public roads, and danger zones. Additional concerns are health relating to noise, shadow flicker as well as other health concerns, ice fall, wildlife impacts, property values, lighting, road repairs and decommissioning.

Mr. Shawver explained that under the current regulations a wind farm would require a conditional use permit and the classification of wind, or energy generation is an industrial use whether it is a solar farm or wind farm if you are manufacturing energy and that is an industrial use. Wind and solar farms take up a large amount of area and there is no way Boone County is going to rezone 10,000 acres to industrial. Any structure over 100 feet requires a conditional use permit which means that every wind turbine would require its own conditional use permit. Under Missouri State Statutes you have to allow for a land use; you cannot restrict uses but you can have a set of regulations. The State does not regulate wind farms but they provide tax incentives for renewable energy.

The County Commission has asked the Columbia Energy and Environment Commission to take a look and see if they can provide some assistance. Four members of this 10 member commissttee are apointed by the Boone County Commission. One of their responsibilities is looking at things that could impact the environment or be energy related.

Commissioner Freiling suggested looking at a minimum lot size. Mr. Shawver stated that setbacks are the main thing; the turbines can be up to 560 feet in height to the tip of the blade; if you keep it that distance away from the property line you are looking at least a 20-acre tract or it won't fit. Commissioner Freiling asked if the spacing was the same as the setback, those that exist now don't look like they are spaced far enough apart.

Mr. Shawver stated other communities require minimum setbacks from adjoining property residences that aren't part of the wind farm.

Commissioner Freiling asked about the research on sound.

Commissioner Furlong stated everything he's read isn't very accurate.

Chairperson Harris stated the data on the sound is inconclusive and that he's been up close to some of these and if you listen closely maybe you can hear it but it is not like a helicopter. Chairperson Harris stated he has tried to listen and hear the hums from them and you get a little bit of a hum.

Commissioner Furlong stated until you actually walk up to one you don't hear them; Commissioner Freiling stated he didn't notice the hum very much. If you get downwind you get the thump and can hear it from ¼ mile away.

Stan Shawver stated the materials reference infra-sound which is something you feel as much as anything. Staff hesitates putting noise restrictions on them but it should be discussed. 50 decibels is what other communities say is the maximum at the property line and some cut down to 30 decibels at night. A noise level is difficult to regulate and enforce.

Chairperson Harris stated regarding minimum property size the setbacks will dictate that by default.

Commissioner Martin stated the maps that staff forwarded that shows the separation between occupied structures and towers dictated how you can manipulate this so you don't eliminate them completely but you segregate to certain spots.

Thad Yonke stated currently the height of the object is the same as the setback; Mr. Shawver stated he didn't believe that would be sufficient in this case.

Questions were raised about the danger zone in case one comes apart and the probability of ice flying off the blades.

Chairperson Harris stated the blades move pretty slow and the ice would be more of an element if it falls 500 feet. Mr. Shawver stated some of the information we will require is what are the fail-safes and what happens when a turbine goes bad and what are the controls. We can think of every scenario and we still won't get them all so we have to craft, as carefully as possible, a regulation that will provide protections, there will have to be a requirement that they have insurance. We have to be practical but also careful and conscientious.

Thad Yonke stated we don't want to reinvent the wheel; there is enough information out there to pick and choose from to craft a reasonable regulation.

Chairperson Harris stated he doesn't want to start from scratch because there are good regulations from Iowa and Kansas; it's not simplistic but it is also not over the top. Chairperson Harris stated he would like to start with something like that.

Commissioner Martin stated it seems a direction for us should be to see what is available as far as what constitutes a wind generation system and our strength is going to be in the density of Boone County. We aren't eliminating wind farms but we can make it something you can comply with.

Chairperson Harris stated looking at the regulations in Kansas and just the setbacks in those regulations if Boone County were to adopt them given the existing density in Boone County it would already be a problem for the development. Road maintenance is also a concern; the tower comes in sections but the blades have to be delivered in one piece.

Stan Shawver stated there would have to be requirements to repair the road; some entities require a 3<sup>rd</sup> party survey of the road before and after, not just the roads but the culverts and pipes. We should also think about solar farms while we are working on these regulations.

Thad Yonke stated we may look in to whether a conditional use permit is required for each turbine or one conditional use permit for the wind farm. Stan Shawver stated if we would require one for each turbine we would need to restrict it to no more than a certain number at a time.

Chairperson Harris stated he didn't want staff to start from ground zero.

Stan Shawver suggested that staff find the common points in the regulations and start from there. Staff would like to wait to see what the Energy and Environment Commission says, especially regarding wildlife.

Chairperson Harris asked staff to keep the Commission advised of meeting times for the Energy and Environment Commission and any meetings that E.On may have. We shouldn't get hung up on too many items, the Commission should wrap this up within a reasonable number of meetings so we can get to the public hearings.

The next work session is scheduled for Wednesday, April 24, 2019 at 5:30 pm.

The work session adjourned at 5:48 pm

Meeting notes prepared by Paula Evans, Administrative Coordinator, Boone County Resource Management