

BOONE COUNTY COMMISSION
PUBLIC MEETING ON PROPOSED SOLAR REGULATIONS
CENTRALIA CITY HALL, COMMUNITY ROOM
114 S ROLLINS ST, CENTRALIA, MISSOURI
(573) 886-4330

Minutes

6:30 P.M.

Thursday, December 8, 2022

Planning and Zoning Commissioners Present: Chairperson Harris, Commissioner Martin, Commissioner Proctor, Commissioner Koirtyohann, Commissioner Harvey, Commissioner McCann, Commissioner Kurzejeski (arrived 6:40 PM)

Staff Present: Director, Bill Florea; Senior Planner, Thad Yonke; Planner, Uriah Mach; Planner, Andrew Devereux, Administrative Coordinator, Paula Evans.

Chairperson Harris entered the following statement into the record:

Solar Regulations Public Hearing

Good evening and welcome to tonight's hearing regarding the proposed Boone County Solar Regulations. This is the third of three public hearings for the proposed Utility Scale Solar Regulations. The following procedure will be followed: An informational presentation will be given which will explain elements of the proposed regulations. After the presentation, the Commission will open the floor to public comment. Responses to questions may not be given this evening. However, a record of all questions and comments will be kept and responses may be made directly to the individual, by posting on our website, or both.

In the interest of time, please be brief with your comments so that everyone will have an opportunity to speak. We also ask that you not be repetitious with your remarks.

After the public hearings are completed, Resource Management will review and organize the comments and questions and forward them to the Planning and Zoning Commission. The Commission may make changes to the proposed regulations as a result of the comments received, or they may make a recommendation for approval or denial to the County Commission. The County Commission will hold at least one public hearing before making a final decision.

Planner, Andrew Devereux gave a power point presentation. This presentation is available for viewing on our website at <https://www.showmeboone.com/resource-management/SolarFarmInformation.asp>

The floor was open for public comment.

Present:

Tom Weislocher, 11581 N Trimble Rd, Harrisburg

Mr. Weislocher read the following statement:

I want to commend Resource Management on developing regulations that are detailed and well thought out, and I am largely in agreement with them. I was not in attendance at the previous public hearings, but I have read the published minutes of those meetings, and I have brought a few points to consider.

1. At the October 20 hearing, some suggested the section on appearance including requiring vegetative screening buffers posed an unreasonable constraint on developers. However, I support that section as written. Over the lifespan of a utility scale solar farm, it is impossible to know in advance what land uses might be made in areas surrounding the farm, and if visual buffers were lax or omitted at the outset, it could be a real challenge to retrofit them as needed after the project is completed. Visual appearance and glare control aside, one of the reasons often cited for the development of utility scale solar is to reduce the carbon footprint. Yet the sheer surface area of the panels required in such an installation displaces many acres of vegetation and trees, themselves a renewable resource, and which are by far the most efficient natural absorbers of CO₂. It makes sense to require a vegetative buffer of trees around the perimeter of the development not only for appearance, but to partially replace some of the CO₂ absorption capabilities of the vegetation that was displaced by solar panels.
2. There was a question of how to address decommissioning costs while being simultaneously fair to developers, the county, and to landowners. At first glance, 150% of the estimated decommissioning and reclamation costs may appear high. But if it is not planned for and funded at the outset, the burden could end up being borne by the county and taxpayers at a later date. Bear in mind the county has little or nothing in the way of an enforcement arm to extract payments from a utility in future years, particularly should that utility become insolvent or bankrupt. I think the requirement for periodic adjustment based on inflation is also necessary. While the Fed's pipe dream is to get inflation down to 2% annually, the longer-term historical average is 3.1%. At 3.1% annual inflation the decommissioning cost at the end of a 25-year useful lifespan would be 215% of the current decommissioning cost. If we instead use the actual 2022 inflation rate of 8.5%, the decommissioning cost in 25 years would be 769% of the current cost. A project could become unfeasible and subject to abandonment at any point in the future due to a variety of reasons, not the least of which is being eclipsed by a more cost-effective and/or environmentally friendly form of energy. If it should become unfeasible to continue operation of a solar power plant, there would be little incentive for the operator or owner to dismantle it, the equivalent of throwing good money after bad. While other businesses may have an intrinsic breakup value (the amount their remaining assets could be sold for at auction), used solar panels are not an asset, they are a liability. Hence the necessity of up-front security and periodic adjustment.
3. Besides the cost of eventual decommissioning, there may be hailstorms, tornadoes, wildfires, and other natural occurrences that pose near term operational stoppage and catastrophic damage threats to solar farms. The loss of use and in particular the cleanup of toxic waste such as gallium arsenide, tellurium, silver, copper indium selenide, silicon tetrachloride, lead, cadmium, and other heavy metals can be extremely expensive. Different ones of these, in addition to their toxicity when leaked from a damaged solar panel, can pollute the air, release hydrochloric acid, or leach into the water supply even when dealt with quickly. Evidence of satisfactory insurance against these and other hazards should be required with the application for a Conditional Use Permit, and evidence of that insurance should be periodically updated.
4. As good as the proposed regulations are, there are still some areas not addressed. One is sound pollution. While we may not think of solar farms as inherently noisy, at utility scale the large inverters which change the current from DC to AC power emit tonal sound at 120 hertz and its higher harmonics, and the large transformers which step up that voltage for easier transmission into the local power grid emit core noise and coil noise. These pure-tone noises are perceived as "hum." Facilities with battery storage components could have day and night inverter and transformer operation, and thus day and night "hum". While there are multiple methods to control this noise, I think it would be best just to prescribe a noise limit, such as 35 Db Lmax as measured at the property line of any adjacent land. This would give developers the leeway to specify in their conditional use permit whether they would choose to centrally locate noise producing equipment, purchase quieter but costlier inverters and transformers, enclose noisy equipment within ventilated buildings, erect physical noise barriers, or a combination of these and other methods to achieve the mandated threshold.

5. Section 30.7.5 deals with Soil Erosion and Water Quality. Since a SEOD may be in the heart of an area zoned for agriculture and since solar arrays inhibit mowing, I believe specifications should be added addressing types, quantities, and frequency of herbicides that may or may not be used to avoid harmful runoff into nearby food crop fields.
6. The concerns of landowners within the SEOD are well considered, but concerns of property owners adjacent to but not within the SEOD are not adequately considered. While adjacent property owners within 1,000 ft. of the boundary of the proposed overlay district are required to be notified by certified mail of a SEOD application, it is a notification only with no voting power attached. Since their property values and their quality of life will be affected by the SEOD, we should include these adjacent property owners in the group of notarized signatures required in section 30.4.1.3.
7. The proposed regulations specify a 1,000 ft. buffer between adjacent SEODs, but there is no similar buffer requirement between the SEOD and a non-participating adjacent property owner's land. I also recommend a 1,000 ft. buffer or setback between the perimeter of the SEOD and a non-participating adjacent property owner's land, since extending the SEOD to the very edge of their land would be the equivalent of trespass zoning, limiting and inhibiting that adjacent owner's usage of their own property. Setbacks from public right-of-ways would also be in order. In future years, a new administration reviewing an application for a Conditional Use Permit might think since setbacks were not addressed in the original SEOD regulations, that they were not deemed important and they would therefore have a weaker case trying to justify specific setbacks at the time of the later Conditional use Permit Application.

I am making these suggestions because I believe in the law of unintended consequences. While we may draft rules thinking of a specific situation, such as a company wanting to develop in an area they have already expressed interest in, the reality is that in the future other companies may wish to develop utility scale solar energy farms in other parts of Boone County where the dynamics are different. Accordingly, the scope of the regulations should be broad enough and specific enough to include other "what if" scenarios that may not be apparent today.

I appreciate the work you all are doing and thank you for your consideration.

Also present:

Susan Goodman, 12700 N Route J, Harrisburg

Susan Goodman: I feel good about the proposed regulations and appreciate all the work staff and the Planning and Zoning Commission have done. Today I was contacted by a person from another county and they shared the regulations they are working on with me. Does the County have regulations from other counties?

Chairperson Harris: Staff has done a pretty extensive search and have gotten the regulations from other counties and states and have looked at where there are bigger projects.

Susan Goodman: I have been told they scrape off the top layer of the farmland and make a three-foot hill and plant trees on it for the screening but then they don't take care of the trees and they end up with dead trees on top of a three-foot berm with fourteen-foot solar panels behind them. My suggestion is, in addition to decommissioning funds that screen maintenance is required. There needs to be money up front so if they abandon it then we still need the screen taken care of. With the decommissioning, another county said that they reviewed every three years for the inflation to see if they need more money for that.

Chairperson Harris: Which county was Ms. Goodman in contact with.

Susan Goodman: They asked not to be identified because they aren't done, they are introducing the regulations and they aren't settled.

Also present:

Rex Smith, 12700 N Route J, Harrisburg

Rex Smith: I agree with the previous speakers. Chemical runoff is my main concern; This week I looked at a number of places that have these panels. Boone Electric has gravel under their panels, the stands that hold the panels up have supports under them, you can't get a lawnmower under them, so I assume they are spraying under there to keep the weeds and grass down. I went to the solar farm between Lake of the Woods exit and Route Z on the south side of the road; they have those panels on two big poles 8 – 10 feet above the ground and they can get a tractor with a brush hog under there so they won't have to spray. The areas where they will put gravel down they will have to do a lot of spraying and that is the potential for getting more herbicides and chemicals in the water runoff. I would like to see some thought put into that.

The public hearing was closed.

Discussion of December 15, 2022 Agenda Items

Staff distributed packets for the December agenda and discussed the items.

Meeting ended 7:58 PM

Minutes prepared by Paula Evans, Administrative Coordinator, Boone County Resource Management