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Mr. Charlie Nichols
Linn County Planning and Zoning Commission
935 Second Street SW
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RE: Iowa Environmental Council Comments on CHAPTER 107 UNIFIED DEVELOPMENT CODE (UDC) TEXT AMENDMENTS for Utility-Scale Solar Installations.

Linn County has a long record of being a leader on solar energy in Iowa. Hosting multiple utility-scale solar projects, the county has a history of drafting common sense and workable rules for project developers that also balance the needs to protect private property rights, environmental stewardship, and economic opportunity. In earning this reputation for clean energy leadership, the planning and zoning commission has demonstrated a willingness to actively recruit feedback from relevant stakeholders and incorporate those comments into the final versions of the county's UDC. To ensure that this trend continues, the Iowa Environmental Council found it necessary to provide the following comments we believe will improve the workability of proposed changes to your utility-scale solar ordinance and associated Linn County Utility-Scale Solar Scorecard. We hope you will consider our comments and engage with us to find balanced, workable solutions moving forward.

General Comments

In addition to supporting Linn County's vision to expand renewable solar energy development, IEC shares the expressed goals of protecting land from detrimental lasting effects that may prevent land from being returned to agricultural use in the future. We also support efforts to establish native vegetation that provides critical habitat for pollinators and wildlife, amplifying the benefits of renewable energy. In addition, we applaud comprehensive approaches to facilitate good neighbor practices and responsible corporate behavior regarding land use, robust and good-paying labor practices, and decommissioning of projects no longer in service. However, in the spirit of supporting those shared goals, we believe the draft changes to the UDC, as written, present an unworkable set of rules and regulations which render much of the land suitable for solar development in Linn County unusable and uneconomical for further utility-scale solar development. The comments below represent our primary concerns and suggest opportunities for the planning and zoning commission to reconsider language that would achieve all stated goals while still facilitating robust utility-scale solar development.

Linn County Utility-Scale Solar Scorecard

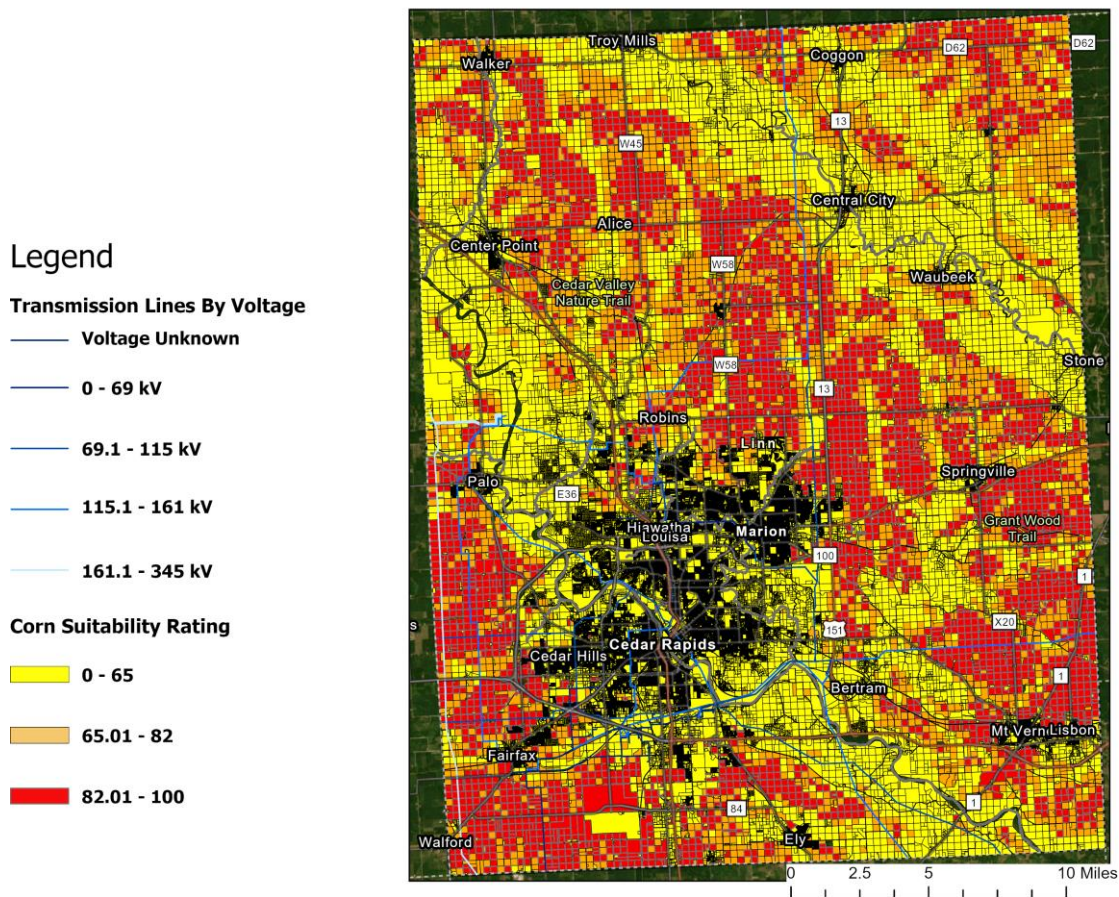
As stated, IEC supports the goals Linn County is attempting to reach by drafting this scorecard, including protecting land and water, establishing habitat for pollinators and wildlife, and ensuring responsible developer behavior. However, we believe the addition of this scorecard and its mandatory minimum score

requirements present a flawed and unworkable approach that would render most utility-scale solar projects too expensive to develop and render most of the suitable land for solar development in Linn County unusable for this purpose. We encourage the commission to not use the minimum score in the scorecard as a requirement for approval but support additional efforts to highlight voluntary actions of project developers through a recognition-based system that celebrates developers that go the extra mile.

Using Corn Suitability Rating (CSR) to determine project approval deters development and ignores private property rights.

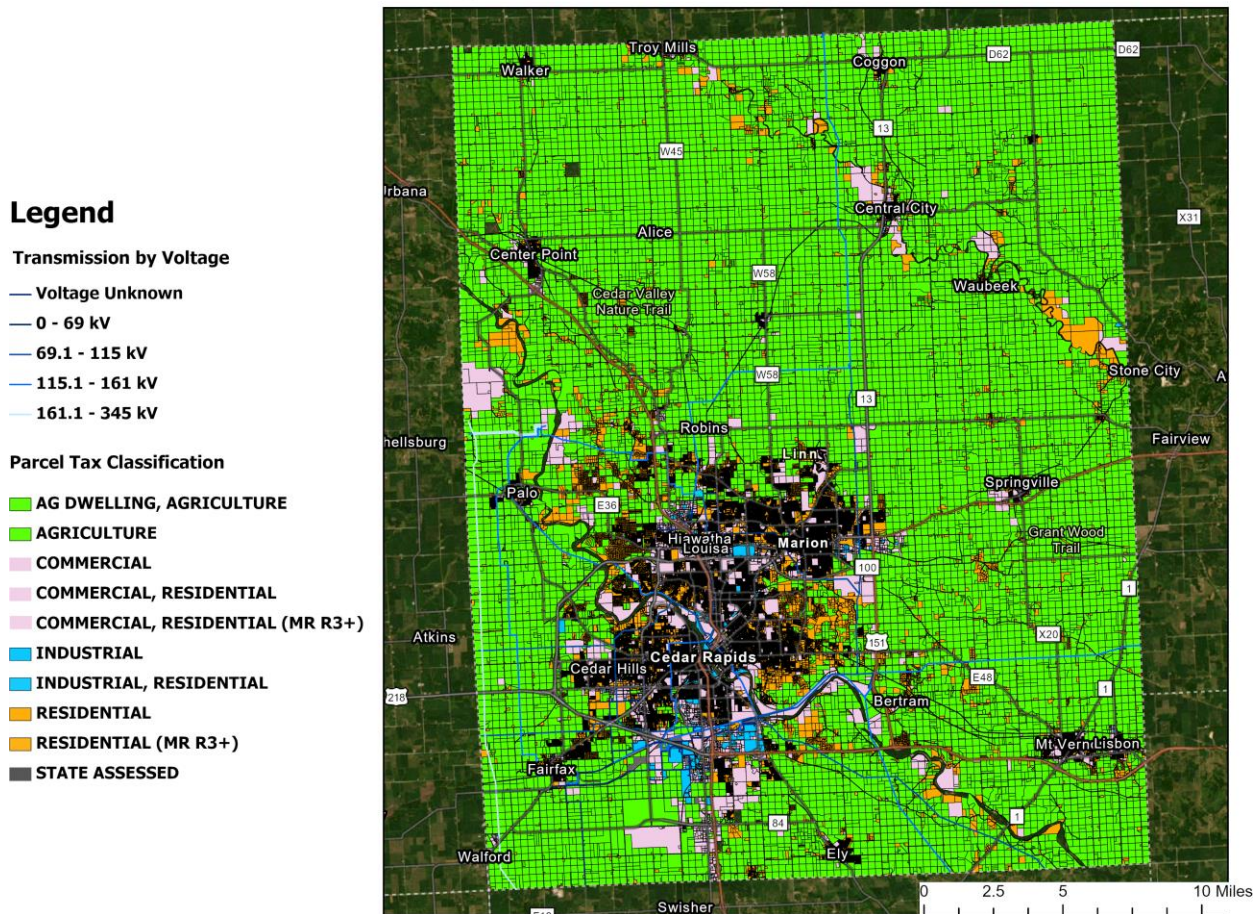
Nearly all of the land in Linn County that is suitable for utility-scale solar development has a corn suitability rating higher than 65 (see Figure 1). In fact, most of the land in the county that is suitable for utility-scale solar development has a CSR higher than 82. By creating a requirement in the scorecard that starts developers at a deficit of up to 16 points (25% in medium CSR and 75% in high CSR), the scorecard automatically puts developers at a disadvantage. For example, a project developer that has already met the baseline requirements of the ordinance may have planned for 25 to 35% of the project to include native species, planned for 5-9 native species in the entire site’s vegetative cover, intended for 10-25% of the entire site to include flowering plants, have three blooming species present during all growing seasons, not graded any of their project site, and still only receive a score of 73 points, prohibiting construction of the project.

Linn County Corn Suitability Rating by Parcel



We believe this scorecard presents a flawed approach in reaching stated goals and runs contrary to the contents of the ordinance as a whole, increasing complexity and, in effect, preventing the development of utility-scale solar projects. Using CSR also ignores the reality that conventional agricultural practices used to raise corn in Iowa have significantly more detrimental outcomes for land, water, and air in Linn County than utility-scale solar projects. Most of the land in Linn County that is suitable for utility-scale solar development is classified as agricultural land and the scorecard inherently limits development and restricts economic opportunity by preventing participating landowners from making significant revenues from their land with little to no input costs (see Figure 2). Using CSR as a reductive punishment for the siting of utility-scale solar also prevents the exercise of private property rights of landowners who have voluntarily agreed to use their land for the purpose of hosting utility-scale solar projects. In all, we believe using CSR as a reductive, punitive standard presents a flawed approach to approving projects. Instead, we believe encouraging installation of native vegetation through a robust vegetation management plan is a more cost-effective approach and achieves better outcomes for soil and water protection. We encourage the commission to remove CSR as an evaluation criterion in the project approval process.

Linn County Land Classification by Parcel



The Exceptional Good Neighbor Practices serve as an alternative ordinance requirement that increases compliance costs and complexity.

The ordinance sets the setback distance at 300 feet, but the scorecard awards additional points for further distances from non-participating dwellings. These distances of 500, 750, 1,000, and 1,250 feet are unlikely to be attained given the limited amount of suitable land that is proximate to necessary energy infrastructure, including transmission lines and substations. The area of suitable land continues to shrink when added to other scorecard and ordinance requirements, such as not siting near ditches and significant visual screening requirements for every dwelling within 1,000 feet of the property line. Further, this increases the complexity of compliance for developers who have to navigate the actual ordinance and these additional setbacks in the scorecard. We encourage the commission to not use additional setback requirements in the scorecard that decrease land availability for solar projects and represent a conflicting requirement that differs from setbacks found in the ordinance.

Agrivoltaics should be encouraged, but real supply chain constraints should not deter project approval.

Agrivoltaics offers an innovative opportunity to stack economic benefits and amplify the benefits of utility-scale solar installations. However, there remain significant bottlenecks in the supply chains necessary for these burgeoning practices. For example, the availability of native seeds from regional distributors and the availability of livestock (sheep) for grazing may be unfeasible given local supply. Allowing for beekeeping and agricultural production on-site would also require additional contractual agreements that are not defined in either the scorecard or the ordinance, leaving the developer unsure of what may qualify as an agrivoltaics practice and ultimately raise compliance costs. We encourage the commission to reject the use of agrivoltaics practices as an evaluation criterion in the scorecard or the ordinance. Instead, we suggest a voluntary effort to engage with developers to establish clear goals and associated agrivoltaics practices to increase project acceptance in the community.

Draft Ordinance Language Comments

Sound requirements further inhibit solar development.

The ordinance states a project should not register a noise level above 55 dBA between 7 a.m. and 10 p.m. and no more than 50 dBA between 10 p.m. and 7 a.m. Both sound measurements are to be measured at the property line of any adjacent property containing a residential structure or one that is zoned as residential. This requirement ensures that less land will be available for utility-scale solar development, and we encourage the commission to consider altering the language to require sound measurements from the nearest point of a non-participating dwelling instead of the adjacent property line. Utility-scale solar projects are not generally loud projects and setback distances in the ordinance make this point of measurement more applicable for protecting the interests of non-participating landowners and residents.

Panel height requirements considerably increase total project costs and deter development.

Most utility-scale solar panels are constructed with a distance of 16 to 24 inches between the lowest tilted edge and the ground. This design ensures stability and cost-efficiency and is concurrent with the latest industry standards. Requiring panels to be constructed with a minimum height of 32 inches presents major barriers for developers intending to install cost-effective projects. The additional steel requirements and the additional time and labor needed to properly maintain panels of that height present serious questions of compliance becoming cost prohibitive. Higher panels directly result in more time spent reaching inverters, wiring, and panel surfaces during regular maintenance operations. We encourage the commission to reject this minimum panel height in the final ordinance as it will significantly increase

project costs and deter projects from being built. If the goal is to raise panels to ensure proper native vegetation establishment, it is instead recommended that the commission requires developers to consult with native vegetation experts as part of their vegetation management plan to identify low-growing native plants that achieve similar ecosystem services.

Agricultural Impact Mitigation Plan and TCLP testing present unrealistic management expectations for developers and ensures utility-scale solar will not be developed in Linn County.

The agricultural impact mitigation plan presents several project requirements that both increase the complexity of the ordinance and significantly raise technical and material costs for developers. These requirements also necessitate the employment or contracting of third-party soil health and agricultural professionals, contracting soil health laboratories, and establishing complicated, technical schedules for soil testing and reporting. Each of these requirements significantly drives up project costs and does little to protect soil health. A robust vegetation management plan would be a more cost-effective way for developers to adopt best-practices and protect soil health.

Under current practices, the land that is most suitable for utility-scale solar development in Linn County, agricultural land, sits uncovered for over half the year and intensively farmed with large machinery and considerable amounts of fertilizer and pesticides. Requiring a complicated and costly soil testing and reporting regime is a novel concept for any land use in the county and represents an unfair barrier for solar developers who are already required under the ordinance to take significant action to protect soil health by establishing native vegetation on site. Requiring a third-party independent monitor on site during construction and mandating testing every 30 days during construction is also an unworkable and unfair barrier for solar development. The third-party independent monitor has unclear responsibilities and mandating this same soil testing regime on agricultural land would rightfully be seen as an affront to private property rights.

In addition to these cost-prohibitive and novel requirements for land use in Linn County, the mandate that all areas in agricultural production at the time of permit issuance be seeded with temporary cover prior to construction if it does not occur within two months fails to meet the goal of protecting soil health while also necessitating the need for outside expertise, machinery, and labor. If the project construction begins at 2 months and 1 day, the developer will have had to purchase and plant the cover only to rip up the ground before it has likely even sprouted. This would also create challenges for establishing native vegetation on the project site as required in the ordinance as any quick-growing cover would compete with the desired native species. The components of this plan will, undoubtedly, serve to eliminate utility-scale solar development in Linn County and we encourage the commission to remove it from the ordinance.

Additionally, we believe that Toxic Characteristic Leaching Procedure (TCLP) testing requirements are not an appropriate requirement for utility-scale solar development. The TCLP was designed to determine if a “waste” is hazardous and simulates the potential leaching from the waste material once it is placed in a landfill, not to characterize soil. Importantly, there is no scientific basis for requiring this testing and it presents an unfair, burdensome cost to developers. Toxic chemicals leaching from operational solar panels into the soil have never been scientifically proven and this represents another novel requirement for land use in Linn County. Any concerns about disposing of panels from utility-scale solar projects should address where developers store expired materials after they are decommissioned as there is no evidence

to suggest that toxic waste would leach from these materials at the project site. We encourage the commission to follow the science and remove this requirement from the draft ordinance.

Repowering requirements present questions of workability and regular maintenance.

As drafted, the requirements relating to repowering of the utility-scale solar project will require the developer to notify the county if they intend to repower 25% of the project's panels. The planning and zoning administrator would be afforded the opportunity to deny that request. This requirement reduces long-term certainty for developers and deters additional investments in utility-scale solar that may encourage developers to avoid building projects in Linn County in the first place. The requirements also fail to address maintenance scenarios that may occur as a result of extreme weather or regular upgrades to the facility. For example, if a hailstorm were to damage 26% of the projects panels and the site engineers determine they need to be replaced, the developer would need to notify the county and wait for the approval of the planning and zoning administrator before swiftly repairing the project to full capacity. There is no fundamental basis for including this requirement and the risk of abandoned infrastructure is already addressed by decommissioning requirements set forth in the ordinance. Further, the board of supervisors and the private landowner leasing their land would both have the authority to restrict extending the project's operation past agreed terms. We encourage the commission to remove these requirements from the ordinance.

Concluding Remarks

IEC shares Linn County's goal to protect land and water resources while also encouraging the development of solar. However, these requirements secure the opposite effect by considerably increasing time, labor, and material costs to achieve compliance with the proposed changes to the ordinance. Utility-scale solar energy is an economic boon to farmers and landowners and offers an opportunity to significantly improve status quo conditions of land and water when compared to conventional farming. It should again be recognized that the landowner has voluntarily agreed to use their land for this purpose and the county should consider the rights of private property owners in the language of this ordinance. We agree that project developers should have obligations to protect the interests of the county and the interests of both participating and non-participating landowners, but as written this ordinance and the accompanying scorecard will regulate utility-scale solar out of existence and prevent its development in Linn County. As a final consideration to highlight the considerable technical, material, labor, and transaction costs of complying with these draft requirements, we have outlined some of the many stakeholders that project developers would need to consult with to comply with county regulations:

- Electrical engineer
- Construction crew
- Legal team to enter lease agreements
- Local utility providers
- Transmission line owners
- Regional transmission organizations
- Vegetation management crew
- Native Seed retailers
- Forester or tree canopy expert
- Forestry products retailer

- Toxic Characteristic Leaching Procedure expert
- Wildlife habitat expert
- Native vegetation management and land use expert
- Agrivoltaics expert
- Drainage tile expert
- Floodplain expert
- Emergency management expert
- Board-licensed sound monitor
- Agricultural and soil science expert
- Soil science laboratory
- Linn County emergency managers and first responders
- Linn County public health agency
- Linn County Board of supervisors
- Linn County Planning and Zoning
- Participating property owners
- Nonparticipating property owners
- Iowa Utilities Board
- Local public hearing venue

IEC stands ready to assist Linn County in its efforts to balance the interests of all parties involved in utility-scale solar development and we hope that you will consider our recommendations fully. As you continue through this process, we encourage you to reach out to us to ask clarifying questions on our recommendations and/or to seek additional information. We recognize the work that has gone into this process, and we are eager to find a way to support your efforts to grow utility-scale solar in Linn County.

Sincerely,

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