



CASE # JA20-0007
EXECUTIVE SUMMARY
UDC TEXT AMENDMENT -
RENEWABLE ENERGY OVERLAY DISTRICT
STAFF CONTACT: CHARLIE NICHOLS

OWNER/APPLICANT INFORMATION

APPLICANT: Linn County Planning and Development Department
MAILING ADDRESS: 935 2nd St SW
Cedar Rapids, IA 52404

REQUEST

Linn County Planning and Development staff is proposing several text amendments to the Unified Development Code (UDC), to enable the creation of a Renewable Energy overlay zoning district. The changes impact the following ordinance sections: Article IV, Sections 107-69, 107-70; Article VI, Section 107-117; Article VII, Sections 107-131, 107-147 and new section 107-149.

OUTSTANDING ISSUES AND STANDARDS FOR APPROVAL

Currently, utility scale solar installations and wind farms are permitted with a Conditional Use Permit, on approval by the Board of Adjustment. Staff believes the approval authority for these types of projects, which often encompass hundreds of acres and involve multiple interest groups, is more appropriately placed in the purview of the Board of Supervisors who serve as elected representatives of county residents. The Renewable Energy Overlay district fulfills the following purposes: encourages and supports the development of alternative and renewable energy resources; encourages development that conforms to the goals, objectives, and strategies in the county's comprehensive plan; and advances targets adopted by the Linn County Board of Supervisors as part of their Resolution Declaring a Climate Crisis and Committing to Accelerated Efforts to Limit the Global Average Temperature Increase.

STAFF RECOMMENDATION

Staff recommends approval of the proposed Unified Development Code text amendments.

STAFF REPORT
CHAPTER 107 UNIFIED DEVELOPMENT CODE (UDC)
TEXT AMENDMENT

Planning and Zoning Commission Meeting: **NOVEMBER 16, 2020**
Board of Supervisors Public Hearing & First Consideration: **NOVEMBER 30, 2020**
Board of Supervisors Second Consideration: **DECEMBER 2, 2020**
Board of Supervisors Third Consideration: **DECEMBER 9, 2020**

CASE: JA20-0007
REQUEST: Chapter 107 Unified Development Code
Text Amendments - Renewable Energy
Overlay District

PETITIONER: Planning and Development
STAFF: Charlie Nichols
CONTACT:

Overview:

Staff is proposing several text amendments to the Unified Development Code (UDC), which would enable the creation of a Renewable Energy overlay zoning district. Currently, utility scale solar installations and wind farms are permitted through the Conditional Use Permit process and approved by the Board of Adjustment. Staff believes that approval authority for these types of projects, which often encompass hundreds of acres and involve multiple interest groups, is more appropriately placed in the hands of the Board of Supervisors, who serve as elected representatives of county residents. The Renewable Energy overlay district fulfills the following purposes:

- (1) Encourages and supports the development and use of alternative and renewable energy resources.
- (2) Encourages development that conforms to the goals, objectives, and strategies in the county's comprehensive plan.
- (3) Advances the following seven targets adopted by the Linn County Board of Supervisors as part of their Resolution Declaring a Climate Crisis and Committing to Accelerated Efforts to Limit the Global Average Temperature Increase:
 - a. Decrease countywide CO2 emissions by 45% from the first recorded year's levels by 2030 and achieve net zero CO2 emissions by 2050.
 - b. Decrease countywide methane and black carbon emissions by 35% from the first recorded year's levels by 2050.
 - c. Increase renewables to account for 100% of electricity generation in Linn County by 2050.
 - d. Decrease coal-generated electricity in Linn County to 0% by 2050.
 - e. Decrease industry CO2 emissions in Linn County by 90% from the first recorded year's levels by 2050.
 - f. Increase the Linn County transport sector's share of low-emission final energy to 65% by 2050.
 - g. Commit to carbon dioxide removal efforts that allow the county to achieve net zero CO2 emissions in 2050.

The proposed UDC text amendments do not change the existing requirements for utility scale solar installation and wind farm uses with two exceptions:

1. A new section on "avoidance and mitigation of damages to public infrastructure" requiring the applicant to survey road conditions in the project area. For wind farms, a guarantee of financial

security will also be required to repair any damages resulting from the construction, operation or maintenance of wind towers.

2. Native grasses and wildflowers are now required for ground cover and buffer areas for utility scale solar installations. Previously, these were recommended.

Following the proposed UDC amendments, rezonings to a Renewable Energy overlay zoning district will need to follow all current rezoning standards with the exception of Land Evaluation and Site Assessment and Minimum Levels of Service requirements.

Proposed UDC Amendments: This part of the report details the actual text amendment language; language that is added to the section will be displayed as underlined text and deleted language will be represented as ~~strikethrough~~ text.

ARTICLE IV. - DEVELOPMENT REVIEW PROCESSES AND REQUIREMENTS

Amend Sec. 107-69. - Standards for review, (1) and (5) as follows:

- (1) *Adequate public facilities/minimum levels of service.* The county comprehensive plan requires that proposed development be allowed only if it can be served by adequate public facilities and services prior to its occupancy and use or that the relevant service provider has, or will have, the capacity to ensure the provision of adequate facilities and services in accordance with a development agreement, meeting adopted level of service standards. The requirements in this section shall be met prior to approval of a development application.
 - a. *Scope.* The requirements of this section shall be met prior to the approval of an application for a rezoning, major subdivision, minor subdivision, or cluster subdivision. Other permits and approvals required by this chapter are not subject to the requirements of this section. Additionally, applications for rezoning to a renewable energy overlay zoning district are not subject to the requirements of this section.
- (5) *Additional standards for review.* Additional standards for review shall include, but not be limited to, the following:
 - a. The proposed development is not detrimental to existing agricultural uses;
 - b. The proposed development will be served by adequate public facilities and services as set forth in a development agreement (if applicable);
 - c. The proposed development will not degrade significant environmental, ecological or natural resources;
 - d. The proposed development achieves densities and uses in agricultural areas, critical natural resource areas, rural residential development areas and urban service areas as designated in the comprehensive plan; and
 - e. The proposed development is consistent with the goals, objectives and strategies of the comprehensive plan.

Sec. 107-70. - Land evaluation and site assessment.

- (1) A LESA analysis shall be required for all development proposals where a rezoning or subdivision of land is proposed. Exceptions to this shall include:
 - a. Residential parcel split;
 - b. Minor boundary change;
 - c. Rezoning of land to correct a situation that would otherwise result in a parcel with more than one zoning district classification;
 - d. Rezoning to a zoning district of equal or lesser intensity. The pyramid diagram (see figures below) illustrates the hierarchy of districts;
 - e. Land preservation parcel split;
 - f. A minor subdivision which is proposed for the benefit of locating a public utility installation including, but not limited to the following uses found in Table 107-147-1 of this article; which, at the location selected, shall meet all applicable site and use standards: Public safety facility, sewage treatment plant, utility substation, utility scale solar or wind installations (or similar alternative and renewable energy technologies), communications tower, and water distribution facility (water tower);
 - g. Bisected lots as described in section 107-49(2)f;
 - h. A minor subdivision that does not create any additional buildable lots;
 - i. Rezoning to the renewable energy overlay district.

ARTICLE VI. - SPECIFIC DEVELOPMENT STANDARDS

Sec. 107-117. - Standards for transportation and utility uses.

- (e) *Utilities, wind farms.* Wind farms shall meet the following standards:
 - (1) *Major site plan and ~~CUP~~ rezoning required.* A major site plan shall be submitted and reviewed prior to the approval of a wind farm. ~~A~~The area proposed for the wind farm use shall require a conditional use permit rezoning to the Renewable Energy overlay zoning district.
 - (2) *Additional information.* In addition to all submittal requirements of a major site plan, the application for a wind farm shall include the following information, supplied by the wind farm owner, operator, or contractor installing the structures: Plans and specifications from a registered professional engineer experienced in the design and/or analysis of wind towers. The plans and specifications shall include:
 - a. Number and location of towers;
 - b. Tower heights, and height from base to the highest point of the rotor;
 - c. Types of tower structure;
 - d. Types of materials;
 - e. Specification for materials used for structural elements of the towers;
 - f. Name of tower manufacturer;
 - g. Soils investigation (where required for footing design).

- (3) *Site and structure requirements.*
 - a. *Location relative to property lines and adjoining residences.* All structures in a wind farm, including guy wire anchors shall meet the most restrictive of the following provisions:
 1. *Setback.* All structures in a wind farm, including guy wire anchors, shall be setback at least 100 feet from the property lines.
 2. *Separation distances.* All structures in a wind farm shall be separated from a residential structure on adjoining property by at least 1,000 feet.
 3. ~~*Fall-zone*~~*Tower setback, freestanding towers.* Freestanding towers shall be located on the lot so that the distance from the base of the tower to any adjoining property line is a minimum of 100 percent of the proposed tower height.
 4. ~~*Fall-zone*~~*Tower setback, guyed towers.* Guy supported towers shall be located so that the distance from the base of the tower to any adjoining property line is a minimum of 70 percent of the effective tower height from its base.
 5. *Multiple towers.* Multiple towers shall be spaced apart by at least 100 percent of the tower height.
- (4) *Compliance with FAA regulations.* Wind towers must comply with applicable Federal Aviation Administration regulations.
- (5) *Noise.* ~~As part of the conditional use permit, additional controls may be established to control noise of the wind turbines, including establishment of appropriate setback from residential or commercial land uses.~~ Sound produced by any wind energy devices under normal operating conditions, as measured at the property line shall not produce sound at a level that would constitute a nuisance. Industry standards support that wind energy noise should not exceed 50dba at any adjacent residential structure.
- (6) *Lighting.* No permanent lighting is allowed on towers except as required by the FCC or the FAA.
- (7) *Interference.* Any signal interference complaints associated with wind farm towers or related equipment shall be addressed in accordance with FCC rules and procedures.
- (8) *Other permits and approvals.* All necessary permits and approvals from the state utilities board and the Federal Energy Regulatory Commission shall be obtained.
- (9) *Avoidance and mitigation of damages to public infrastructure.*
 - a. *Roads.* Applicants shall identify all roads to be used for the purpose of transporting wind tower components, substation parts, cement, and/or equipment for construction, operation or maintenance of the wind towers and obtain applicable weight and size permits from the impacted road authority prior to construction.
 - b. *Existing Road Conditions.* Applicant shall conduct a preconstruction survey, in coordination with the impacted local road authority to determine existing road conditions. The survey shall include photographs and a written agreement to document the condition of the public facility. The applicant is responsible for on-going road maintenance and dust control measures identified by the Linn County Engineer during all phases of construction.
 - c. *Drainage System.* The applicant shall be responsible for immediate repair of damage to public drainage systems stemming from construction, operation or maintenance of the wind towers.

d. Required Financial Security. The applicant shall be responsible for restoring or paying damages as agreed to by the applicable road authority sufficient to restore the roads and bridges to preconstruction conditions. Financial assurance mechanism(s) in the form of a performance bond and/or other security approved by the Linn County Attorney's Office shall be submitted covering 130 percent the costs of all required improvements. This requirement may be waived or modified by the Board of Supervisors by recommendation from the Linn County Engineer.

(h) *Utilities, utility scale solar installations.*

- (1) *Purpose.* To encourage utility scale photovoltaic solar installations. Concentrating solar power (CSP) systems shall be prohibited.
- (2) *Major site plan and ~~conditional use permit~~ rezoning required.* A major site plan shall be submitted and reviewed prior to the approval of a utility scale solar installation. ~~A~~The area to be used for the utility scale solar installation shall require a ~~conditional use permit~~ rezoning to the Renewable Energy overlay zoning district.
- (3) *Additional information.* In addition to all submittal requirements of a major site plan and ~~conditional use permit~~ rezoning application, the application for a utility scale solar installation shall include the following information on the site plan or in narrative form, supplied by the utility scale solar installation owner, operator or contractor installing the structures:
 - a. Number, location and spacing of solar panels/arrays.
 - b. Planned location of underground or overhead electric lines.
 - c. Project development timeline which indicates how the applicant will inform adjacent property owners and interested stakeholders in the community.
 - d. Pre-construction survey of nearby roads that may be impacted by construction of the facility.
 - e. Interconnection agreement.
 - f. Operation and maintenance plan.
 - g. Decommissioning plan.
- (4) *Site and structure requirements.*
 - a. *Setback.* Setbacks for all structures (including solar arrays) must adhere to the minimum principal setback standards for the zoning district where the project is located; greater setbacks may be recommended absent a solar access easement agreement.
 - b. *Screening.* A landscape buffer may be required to be installed and maintained during the life of the operation. Determination of screening requirements will be made by the board of ~~adjustment~~ supervisors as part of the review and approval process and will be based on adjacent or nearby surrounding land uses and topography.
 - c. *Utility connections.* Reasonable efforts shall be made to place all utility connections from the solar installation underground, depending on appropriate soil conditions, shape and topography of the site, distance to the connection, or other conditions or requirements.
 - d. *Grading plan.* A grading plan shall be submitted and shall include all proposed changes to the landscape of the site (e.g., clearing, grading, topographic changes, tree removal, etc.).

- e. *Glare minimization.* All solar panels must be constructed to minimize glare or reflection onto adjacent properties and adjacent roadways and must not interfere with traffic, including air traffic, or create a safety hazard.
- f. *Compliance with local, state and federal regulations.* Utility scale solar installations shall comply with applicable local, state and federal regulations.
- g. *Appurtenant structures.* All appurtenant structures shall be subject to bulk and height regulations of structures in the underlying zoning district.
- h. *Floodplain considerations.* Utility scale solar installations are considered to be maximum damage potential structures and facilities for purposes of the floodplain district regulations.
- i. *Signage.* No signs other than appropriate warning signs, or standard manufacturer's, operator's or installer's identification signage, shall be displayed.
- j. *Fencing/security.* A security fence must be installed along all exterior sides of the utility scale solar installation and be equipped with a minimum of one gate and locking mechanism on the primary access side. Security fences, gates and warning signs must be maintained in good condition until the utility scale solar installation is dismantled and removed from the site.

(5) *Avoidance and mitigation of damages to public infrastructure.*

- a. *Roads.* Applicants shall identify all roads to be used for the purpose of transporting solar components, substation parts, cement, and/or equipment for construction, operation or maintenance of the solar installation and obtain applicable weight and size permits from the impacted road authority prior to construction.
- b. *Existing Road Conditions.* Applicant shall conduct a preconstruction survey, in coordination with the impacted local road authority to determine existing road conditions. The survey shall include photographs and a written agreement to document the condition of the public facility. The applicant is responsible for on-going road maintenance and dust control measures identified by the Linn County Engineer during all phases of construction.
- c. *Drainage System.* The applicant shall be responsible for immediate repair of damage to public drainage systems stemming from construction, operation or maintenance of the solar installation.

(65) *Operation and maintenance plan.* The applicant shall submit a plan for the operation and maintenance of the solar installation, which shall include measures for maintaining safe access to the installation, stormwater and erosion controls, as well as general procedures for operation and maintenance of the installation.

- a. *Soil erosion and sediment control considerations.* The applicant agrees to conduct all roadwork and other site development work in compliance with a national pollutant discharge elimination system (NPDES) permit as required by the state department of natural resources and comply with requirements as detailed by local jurisdictional authorities during the plan submittal. If subject to NPDES requirements, the applicant must submit the permit for review and comment, and an erosion and sediment control plan before beginning construction. The plan must include both general "best management practices" for temporary erosion and sediment control both during and after construction

and permanent drainage and erosion control measures to prevent damage to local roads or adjacent areas and to prevent sediment-laden run-off into waterways.

- b. *Stormwater management considerations.* For the purposes of pollutant removal, stormwater rate and runoff management, flood reduction and associated impacts, the applicant shall provide a detailed analysis of pre- and post-development stormwater runoff rates for review by local jurisdictional authorities. Such review may incorporate stormwater management criteria as set forth in the Cedar Rapids Metropolitan Area Engineering Design Standards Manual for detention of specified rainfall events, and infiltration components consistent with practices as detailed in the state stormwater management manual.
- c. *Ground cover and buffer areas.* Ground around and under solar arrays and in project site buffer areas shall be planted and maintained in perennial vegetated ground cover, and meet the following standards:
 1. Large-scale removal of mature trees on the site is discouraged.
 2. Top soils shall not be removed during development, unless part of a remediation effort.
 3. ~~2.~~ Soils shall be planted and maintained in perennial vegetation for the full operational life of the project to prevent erosion, manage runoff and build soil. Seeds should include a mix of grasses and wildflowers, ideally native to the region of the project site that will result in a short stature prairie with a diversity of forbs or flowering plants that bloom throughout the growing season. Blooming shrubs may be used in buffer areas as appropriate for visual screening. Non-native or naturalized species may be selectively planted for maintenance purposes as part of an approved site plan.
 4. ~~3.~~ Seed mixes and maintenance practices should be consistent with recommendations made by qualified natural resource professionals such as those from the department of natural resources, county soil and water conservation service, or natural resource conservation service.
 5. ~~4.~~ Plant material must not have been treated with systemic insecticides, particularly neonicotinoids.
 6. Other practices, such as small-scale farming or grazing, may be allowed in the project area as part of the conditions of approval for the project.
- d. *Cleaning chemicals and solvents.* During operation of the proposed installation, all chemicals or solvents used to clean photovoltaic panels should be low in volatile organic compounds and the operator should use recyclable or biodegradable products to the extent possible. Any on-site storage of chemicals or solvents shall be referenced.
- e. *Maintenance, repair or replacement of facility.* Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures. Site access shall be maintained to a level acceptable to emergency response officials. Any retrofit, replacement or refurbishment of equipment shall adhere to all applicable local, state and federal requirements.

~~(7)~~ *Decommissioning and site reclamation plan.*

- a. The application must include a decommissioning plan that describes the anticipated life of the utility scale solar installation; the anticipated manner in which the project will be

decommissioned, including plans to recycle components; the anticipated site restoration actions; the estimated decommissioning costs in current dollars; and the method for ensuring that funds will be available for decommissioning and restoration.

- b. The applicant shall provide the basis for estimates of net costs for decommissioning the site (decommissioning costs less salvage value). The cost basis shall include a mechanism for calculating adjusted costs over the life of the project.
- c. Restoration or reclamation activities shall include, but not be limited to, the following:
 1. Restoration of the pre-construction surface grade and soil profile after removal of structures, equipment, graveled areas and access roads.
 2. Re-vegetation of restored soil areas with crops, native seed mixes, native tree species, plant species suitable to the area, consistent with the county's weed control plan.
 3. For any part of the energy project on leased property, the plan may incorporate agreements with the landowner regarding leaving access roads, fences, gates or repurposed buildings in place or regarding restoration of agricultural crops or forest resource land. Any use of remaining structures must be in conformance with the regulations in effect at that time.
- d. Following a continuous one-year period in which no electricity is generated, or if substantial action on the project is discontinued for a period of one year, the permit holder will have one year to complete decommissioning of the utility scale solar installation. Decommissioning shall be completed in accordance with the approved decommissioning plan. The land owner or tenant must notify the county when the project is discontinued.

ARTICLE VII. - ZONING CLASSIFICATIONS, DENSITY, DIMENSIONAL STANDARDS AND ALLOWED USES

Sec. 107-131. - Districts and district boundaries.

- (a) *Reclassification.* The zoning districts established under the prior zoning ordinance shall be reclassified as shown in the reclassification list associated with the official zoning map.
- (b) *Establishment of districts and overlay zones.* In order to carry out the purpose and intent of this chapter, the unincorporated territory of the county is hereby divided into the following zoning districts and overlay zones:
 - (1) AG Agricultural District.
 - (2) RR2 Rural Residential Two-Acre District.
 - (3) RR3 Rural Residential Three-Acre District.
 - (4) RR1 Rural Residential One-Acre District.
 - (5) VR and VM Rural Village Districts.
 - (6) USR Urban Services Residential District.
 - (7) USR-MF Urban Services Residential, Multi-Family District.
 - (8) HC Highway Commercial District.
 - (9) GC General Commercial District.

- (10) I Industrial District.
- (11) CNR Critical Natural Resources District.
- (12) REC Seasonal Cabin and Recreation Areas Overlay District.
- (13) FP Floodplain Overlay District.
- (14) EU-1 Exclusive Use, Sanitary Landfill District.
- (15) MH Mobile Home District.
- (16) PUD Planned Unit Development Overlay District
- (17) RE Renewable Energy Overlay District

Sec. 107-147. - Use table.

(a) Use table. Table 107-147-1, below, establishes the permitted, conditional and accessory uses allowed in each zoning district within the county, except that uses allowed in the PUD Planned Unit Development Overlay district shall be established in an associated approved governing plan, and except that wind farms and utility scale solar installations shall only be allowed in an approved RE Renewable Energy Overlay District.

P=Permitted Use
C=Conditional Use
A=Accessory Use

Transportation and Utility Uses		STD	AG	RR 1/2/3	VR	VM	USR	USR- MF	HC	GC	I	CNR	MH
Utilities	SWECS, accessory	107-117(d)	A	A	A	A	A	A	A	A	A	A	
	Wind farm	107-117(e)	<u>CP</u>									<u>CP</u>	
	Consumer scale solar	107-117(g)	P/A	P/A	P/A	P/A	P/A	P/A	P/A	P/A	P/A	P/A	P/A
	Utility scale solar	107-117(h)	<u>CP</u>						<u>C</u>	<u>C</u>	<u>C</u>	<u>CP</u>	

Sec. 107-149. – Renewable Energy Overlay District.

(a) Purpose. The county has determined that establishing a renewable energy overlay district is appropriate in order to allow for the orderly development of utility scale solar and wind farm energy projects. This section establishes an overlay district that serves the following purposes:

- (1) To encourage and support the development and use of alternative and renewable energy resources.
 - (2) To encourage development that conforms to the goals, objectives, and strategies in the county's comprehensive plan, and/or any approved fringe area plan (formerly known as city/county strategic growth plan) that pertains to the area in which the development is proposed.
 - (3) To encourage sustainable and energy efficient development as outlined by the Linn County Board of Supervisors Resolution in support of the objectives of the Paris Agreement, which aims to strengthen the global response to the threat of climate change.
 - (4) To advance the seven targets identified by the Linn County Board of Supervisors in the Resolution Declaring a Climate Crisis and Committing to Accelerated Efforts to Limit the Global Average Temperature Increase.
- (b) Geographic location. The renewable energy overlay district shall be geographically located in those areas currently zoned AG (Agricultural) or CNR (Critical Natural Resources).
- (c) Permitted uses. Uses allowed in the renewable energy overlay district include wind farms and/or utility scale solar energy generating facilities.
- (d) Signage. Signage shall conform to the requirements in Section 107-94(j) for the underlying zoning district.
- (e) Additional requirements. Additional requirements within this chapter and other county ordinances apply to development in the renewable energy overlay district, including but not limited to, the general regulations in article V of this chapter. Other requirements apply to this overlay district, including:
- (1) Protection of critical natural resources. Rezoning proposals in CNR (Critical Natural Resources) zoning districts must meet the General Performance Standards outlined in article VII of this chapter, which are designed to protect delineated critical natural resources.
- (f) Setbacks. Setbacks within the renewable energy overlay district shall be subject to the minimum setbacks of the underlying zoning district. Setbacks may be reduced to zero when property used for a wind farm abuts another property used for a wind farm, and when property used for utility scale solar abuts another property used for utility scale solar.
- (g) Outlots and nonbuildable lots. Platted outlots or parcels that have been determined to be nonbuildable (not a legal lot of record) may be included in the overall site proposed to be used for a wind farm or utility scale solar energy installation.

Motion by Kuntz to recommend approval of case JA20-0007, subject to the conditions of the staff report. Second by Grenis.

Landa	<i>Aye</i>
Maxwell	<i>Aye</i>
Kuntz	<i>Aye</i>
Wagner	<i>Aye</i>
Grenis	<i>Aye</i>
DuBois	<i>Aye</i>
Eilers	<i>Aye</i>