



STAFF REPORT

TO: Chairman Bogle and Planning Board members
FROM: Planning Staff
RE: Solar Moratorium and Related Text Amendments
DATE: October 19, 2020

**Read this Report first
and then use in tandem
with the proposed Solar
Moratorium DRAFT 1.1**

Commentary

As most of you are aware, the County has been in the midst of a solar moratorium for almost one (1) year. The first six (6) month duration from October 2019 until April 2020 involved significant work and meetings held by Committee B resulting in the ZTA 02-19 text recommended by the Planning Board, which was ultimately rejected by the Board of Commissioners prompting the current 6-month moratorium extension which was scheduled to expire October 6, 2020.

The COVID-19 pandemic has created havoc with all aspects of daily life and from the standpoint of Planning Staff; this is most notable in the lack of opportunities for meaningful civic engagement. Essentially, the pandemic has put all but the most basic land use approvals on hold for the past six (6) months. In fact, statutory changes related to COVID-19 have made virtual hearings for quasi-judicial cases difficult to administer as people that may have standing but not be able to “attend” can challenge the decision based on infringement of their due process. As such, Staff conversations with an applicant seeking a quasi-judicial hearing have explained this caveat in detail and each have opted to wait until in-person meetings occur. Given this scenario, it is likely a solar conditional use permit application would not have been considered by the Commission during this current 6-month moratorium.

Aware of the pending moratorium expiration, the Commission conducted a public hearing at its October 5, 2020 and extended the moratorium another six (6) months until April 5, 2021. Always anticipating that in-person meetings would have resumed at some point during the previous 6 months of pandemic, Staff has been busy preparing draft text amendments that address concerns from the Commission, the public and solar industry. Regardless when in-person meetings resume, we are prepared to move forward with consideration and discussion of proposed amendments related to this topic.

Suggested Review Process

Based on the complexity and amount of time required for discussion and review of these amendments, Staff suggests the entire Planning Board be tasked with this process. This will ensure that a quorum is always present for discussions and when it is time for a courtesy hearing, the majority of members should be familiar with the content of the amendments, eliminating confusion or further delays.

Approach

Staff has proposed to transition a group of land uses (junkyards, landfills, solar farms and zoos) from consideration as *Conditional Use* to *Conditional Districts* based on the relatively abbreviated process for quasi-judicial (evidentiary hearings) review as compared to a legislative process. Staff opinion is these uses deserve more public notice and opportunity for review and input when making a decision as to their appropriateness. As a reminder, quasi-judicial involves only the Board of Commissioners while legislative includes the Planning Board to provide a recommendation to the Commission, which make a final decision. While this approach may serve to eliminate some frustrations voiced by the public related to their inability to offer “expert testimony or substantial, competent and material evidence” in conditional use permit hearings, it may also benefit an applicant(s) when a mutually agreed upon condition may help their project gain approval.

Proposed Amendments

The accompanying pdf document contains Staff suggested amendments to the Rowan County Zoning Ordinance; *new text appears in bold italics*, recommended deletions are ~~strikethrough-text~~ and commentary is included in the sidebar providing rationale or reference for a suggested change.

A brief summary of the proposed amendments by section is included below; pages referenced are those at bottom of the pages in the accompanying pdf entitled, **Solar Moratorium DRAFT 1.0**.

- **Table of Contents**
 - **Page 1.** Proposed new Section 21-64 applicable to specific standards for solar energy systems, junk yards, landfills and zoos as conditional districts(CD)
- **Sec. 21-4. Definitions**
 - **Page 26 and 27.** New definition for *Solar Energy System* establishes four types of systems based upon its size or use. The types include small scale, on-site, roof mounted and utility scale
 - **Page 30.** *System Area* is a term and concept developed in the previous text amendment process that remains
- **Sec. 21-34. Economic development districts established for I-85.**
 - **Pages 49, 51, 53 and 54.** The current allowance for a solar energy system having a panel area of 6,000 sq ft or less in each of the four 85-ED zoning districts is proposed to be removed and replaced with an allowance for either *On-Site* or *Roof Mounted* Solar Energy System. The use of solar in 85-ED seemed more plausible if it were associated with or located on a developed (as supplemental or primary power) as opposed vacant parcel.
- **Sec. 21-53. Permitted uses with special requirements and rural home occupations (RHO).**
 - **Page 59.** Subsection (2). Replaced the current term ‘Ground mounted’ with proposed term *Small Scale*. Expanded the exemption for maximum building size applicable to *On-Site* and *Roof Mounted* solar energy systems eligible as an SR or an RHO.
 - Question – Should *Small Scale* systems (currently known as Ground mounted) continue to be allowed as a primary use on a lot, i.e. without being associated with a residence or other structure?
- **Sec. 21-56. Specific Requirements for uses listed as SR in Section 21-113 (Table of Uses).**
 - **Pages 64 and 65.** Subsection (6)c contains the current and proposed specific requirements for *Small Scale*, *On-Site* and *Roof Mounted* systems permitted in a zoning district provided the use is an SR and can comply with the specific standards. Refer to page 107 for district applicability.

- **Page 64.** Subsection (6)c(1) has *Small Scale* systems assume the current requirements for panels less than 6,000 sq ft or ten percent (10%) of the lot size and are allowed as an SR in all zoning districts except the 85-ED zones.
 - **Page 65.** Subsection (6)c(2) contains the proposed requirements for *On-Site* systems. These provide or supplement power to an existing or proposed business and may be approved administratively provided the standards of Sec.21-60(4)b(1) found on pages 78-79 are met.
 - **Page 65.** Subsection (6)c(3) applies to *Roof Mounted* systems which are proposed to be allowed in any zoning district, provided the SR of not being located in the conical or horizontal surface of the airport is met.
- **Sec. 21-60. Conditional use requirements for specific uses.**
- **Page 74.** Subsection 2 is currently applicable to the Manufacturing trade group uses and specifies the surety bonding requirements for uses in this category. Given the discussions about decommissioning plans and documentation, could this be a suitable alternative until guidance is developed by NCDEQ?
 - **Page 78.** Subsection 4(a)7 contains the requirements for Land Clearing and Inert Debris (LCID) landfills. The size requirements in (i) and (ii) were exemptions to the specific conditional use standards, so they were relocated to Section 21-277(b)5 on page 132 which contains the ordinance’s “exceptions and modifications”.
 - **Pages 78 thru 80.** Subsection 4(b)1 and 2 replaces the current Ground mounted solar energy system over 6,000 sq ft requirements with standards for On-Site and Utility Scale.
 - **Page 78.** Subsection 4(b)1. On-Site systems are intended to provide or supplement power to a non-residential use and proposed as a conditional use in the RA district, but the standards for setbacks, location, fencing and documentation would be considered as an SR (administrative approval) if proposed for location in a CBI/ NB / INST / IND district.
 - **Page 79.** Subsection 4(b)1(i). Not allowing any type solar system in the conical or horizontal surface of the Mid-Carolina Regional Airport is a recurring standard.
 - **Page 79.** Subsection 4(b)1(ii). Security fencing may be any type construction provided its at least six (6) feet in height. Question- No screening is proposed, but could be a condition of approval as a CUP, but not as an SR if there is separation by more than 200’ from an existing structure and the proposed. Should this be a requirement?
 - **Page 79.** Subsection 4(b)1(iii). To substantiate the On-site system’s power is primarily for the business on-site, the applicant must provide documentation from a PE.
- On-Site standards
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 - **Page 79.** Subsection 4(b)1(iii). To substantiate the On-site system’s power is primarily for the business on-site, the applicant must provide documentation from a PE.
- Utility Scale standards
- **Page 79.** Utility Scale systems do not meet the definition of the small scale, on-site, or roof mounted systems but are generally the type system designed exclusively to provide electricity to the power grid. As such, requirements for these systems are more comprehensive due to scale and impacts. As proposed, these systems could only be considered as a conditional use in the IND district and would no longer be a CUP option in the RA, RR, CBI and NB districts.
 - **Page 79.** Subsection 4(b)2(i)a(1). System area setbacks from adjoining property lines are proposed to increase from the current fifty (50) feet to one hundred (100) feet.
 - **Page 79.** Subsection 4(b)2(i)a(2). The setbacks noted in item 1 may be reduced to twenty-five (25) feet along internal common tract lines, but must adhere to 100’ along roads.
 - **Page 79.** Subsection 4(b)2(i)b. All equipment other than panels must be setback three hundred (300) feet from an existing residence church or school on adjoining property.

- **Page 79.** Subsection 4(b)2(ii). Propose to eliminate this type system from being considered within the conical or horizontal surface of the Mid-Carolina Airport. However, if located in the approach surface, the current requirement for providing an approved Obstruction Evaluation / Airport Airspace Analysis by FAA (Form 7460-1) remains.
- **Page 79.** Subsection 4(b)2(iii). The maximum system area size is proposed to be fifty (50) acres. This is a land use policy question as to whether these systems should be considered as an industrial use. Specifically, is it appropriate for these systems to locate on existing industrially zoned properties or have tracts in rural areas be rezoned as IND to accommodate? This topic will be discussed in detail during updates to the land use plans.
- **Page 79.** Subsection 4(b)2(iv). Propose to utilize the Type B Buffering and Screening requirements for these type systems which includes an eighty (80') buffer, row of large maturing trees not less than ten (10) feet tall at time of planting and spaced not more than six (6) feet apart; six (6) foot tall opaque fence; and a lawn of low growing evergreen shrubs or rock mulch in the balance of the buffer.
- **Page 79.** Subsection 4(b)2(v). Solar panels used in the system shall have an anti-reflective coating and provide manufacturers specifications.
- **Page 80.** Subsection 4(b)2(vi). Supplementary materials the applicant is required to provide include:
 - (a). Any material or studies produced or received as part of its application to the NC Utilities Commission.
 - (b). Evidence the electric utility is aware of the intent for interconnection to their system.
 - (c). Copy of an approved system application from the NC Utilities Commission.
- **Page 80.** Subsection 4(b)2(vii). Required plans the applicant must provide include:
 - (a). Decommissioning Plan. This has been a concern of not only the general public but also the Commission. The General Assembly has tasked the Environmental Management Commission with developing rules by January of 2022 but it's not apparent if the rules will be mandatory, suggestions or retroactive. A template from the previous text amendments still may be useful as a model or another option may be to use the surety bonding requirements highlighted on page 74 applicable to Manufacturing trade group uses (Sec. 21-60(2)6) and broadcast towers on page 92 (Section 21-60(12)g).
 - (b). Maintenance Plan. This requirement will specify when and how the applicant or operator will maintain the system and grounds.
 - (c). Emergency Access Plan. This will specify how access to the site will be provided in the event of an emergency for fire personnel.
- **Page 81.** Subsection 5(b). Motor vehicle parts (outdoor) used in the RA district (SIC 5015).
 - Propose to remove junkyards as a conditional use in the RA district and transition to a Conditional District in RA. The standards of this subsection were relocated to Section 21-64(c) on page 101.
- **Page 84.** Subsection 7(c). Zoological garden (SIC 8422)
 - Zoos are currently conditional uses in the RA, CBI and INST districts and as proposed these standards are only applicable to Zoos located in the CBI district. This would also transition Zoos in RA to a conditional district and eliminate in the INST district.
- **Page 92.** Subsection 12(g) is an excerpt from the specific requirements for Broadcast Towers which specifies the surety bonding requirements for this use. Given the discussions about decommissioning plans and documentation, could this be a suitable alternative until guidance is developed by NCDEQ?

▪ **Section 21-61. Conditional Districts.**

Pages 95-97. Conditional district zoning was incorporated into the ordinance in 2016 as a replacement to the parallel conditional use rezoning process. Conditional district zoning is a legislative process that allows an applicant to propose a specific use(s) within a base zoning district and offer or agree to conditions that make the project complimentary to surrounding uses, consistent with land use plans or conditions in the vicinity. The section text is included for general reference.

- **Page 96 line 11.** Subsection (b) includes reference that CD (conditional district) zoning is included in the Table of Uses; refer to Sec. 21-113 on pages 107-109.

▪ **Section 21-62. Effect of approval for conditional districts.**

Pages 97 thru 99. Included for general reference regarding process for minor changes to a CD.

▪ **Section 21-64. Conditional district standards for specific uses.**

Pages 99 thru 101. This is a new section in the RCZO that includes specific standards for Utility Scale Solar Energy Systems; Dumps, Landfills and similar uses; Junkyards; and Zoos. In general, these uses are currently conditional uses (CUP) in the RA district, but are now been proposed as uses in a conditional district (CD) in the RA. This effectively transitions consideration of these uses from quasi-judicial to legislative, which by process would involve a courtesy hearing by the Planning Board.

- **Page 99.** Subsection (a) includes the standards for Utility Scale Solar Energy Systems. Since these systems are not defined as small scale, on-site, or roof mounted, they would be all other systems that provide power to the electric grid.
 - **Page 99 and 100.** Subsection (a)1(i) and (ii) establish 100' setbacks for the system area, but allows for a reduction to 25' if the system is on multiple adjoining properties. System area is defined as the fenced perimeter of the solar energy system. Setbacks for all equipment are 300' from a residence, church or school on an adjoining property.
 - **Page 100.** Subsection (a)2 prohibits these systems within the conical and horizontal surfaces surrounding the Airport. The horizontal surface extends 10,000 feet from the center of each end of the runway and limits the height of any structure within its area to no more than 150' above the elevation of the end of the runway. The conical surface is adjacent to the horizontal surface and extends a distance of 4,000 feet and upward at a 20:1 slope.
 - **Page 100.** Subsection (a)3 uses the existing screening, buffering and fencing standard contained in Section 21-215 to be applied surrounding the perimeter of the system area prior to operation. These standards include an 80' buffer; row of trees (40%) which are not less than 10' tall at time of planting and spaced not more than 6' apart; opaque 6' tall fence; and remainder of buffer covered w/ mulch, shrubs, etc. As proposed, these items are to be in place prior to operation but Staff questions whether there should be an option to modify planting times based on season?
 - **Page 100.** Subsection (a)4 specifies that all internal roads be constructed of gravel and when applicable, connection to a state maintained road shall be paved to the system area.
 - **Page 100.** Subsection (a)5 requires a decommissioning plan to be provided if the system does not produce power for 12 continuous months. A significant amount of discussion on such a plan and its contents and requirements occurred during the initial 6 month moratorium. The NC Legislature has required the Environmental Management Commission to study the issue and provide recommendations on decommissioning of these facilities by January 2022, but it is unclear at this point whether the rules would be mandatory, enforced by state or local governments and retroactive. Aside from having a formalized plan, another option could be to require a surety bond for removal as the County currently does for "Heavy Impact" uses and broadcast towers.

- **Pages 100 and 101.** Subsection (b) includes the standards previously contained in the specific conditional use section for dumps, landfills and similar uses. As noted previously, this effectively transitions these uses from a quasi-judicial to legislative process. Other than relocation, Staff proposes no changes to these standards.
- **Page 101.** Similar to subsection (b), subsection (c) relocates the specific conditional use standards for outdoor junkyards in the RA district to a conditional district (legislative) in the RA district. No additional amendments were proposed for this use, other than relocation to CD.
- **Page 101.** Subsection (d) has standards for Zoos relocated from the specific conditional use section to the specific standards in the conditional district section.

▪ **Section 21-113. Table of Uses (excerpts).**

Pages 107 thru 109. The highlighted text indicates the uses proposed for amendment. While the districts tend to dictate whether a particular use is allowed, the land use plans (and subsequent updates) should help to guide where new districts are located and in some cases, give guidance as to the appropriateness of a use in an area.

▪ **Section 21-213. Buffer requirements (excerpts).**

Page 120. The standards for trees and shrubs from item (d) have been included for general reference. These would be applicable for the large maturing trees and shrubs utilized in the screening of the system area.

▪ **Section 21-215. Required screening type.**

- **Page 121.** Staff notes that in subsection (1)b no screening is proposed for small scale (panels less than 6,000 sq ft) and on-site (panels or system providing or supplementing power to on-site business) if a distance of more than 200' separate the panels for a structure on an adjoining property. If the Board felt that screening is appropriate regardless of distance, Type A may be appropriate.
- **Page 121.** Each standard in subsection (2) would be applicable to utility scale solar energy system projects.

▪ **Section 21-216. Screening and buffering.**

- **Page 122 thru 124.** The group categories and screening matrix is provided as general reference.
- **Page 123 line 17.** If screening were applicable to on-site (separation of >200') Staff proposes to include it would be considered a Group 3 use and its standard for screening and buffering would be a Type A buffer and screening requirement.
- **Pages 123-124.** Group 4 uses are considered more intensive land uses and therefore have more stringent screening and buffering requirements. Staff proposes to include Utility Scale Solar in this group; **refer to line 11 on Page 124.** Regardless of separation distances, the Type B standard is proposed in a CD or CUP.

▪ **Section 21-217. Alternative buffers and screening.**

Page 124. Based on the ability to negotiate standards within a CD, this option may be allowed whereas a specific standard associated with a CUP could not be waived or altered.

▪ **Section 21-218. Existing vegetation.**

Page 124. Similar to Section 217, this standard could be modified or accepted in a CD, but not in a CUP unless the provisions in that specific section acknowledge use of this section as an option.

▪ **Section 21-219. Applicability of screening and buffering type.**

Page 124. Staff proposed text to clarify that Conditional Uses and Conditional Districts must comply with the buffer and screening standards.

▪ **Section 21-277. Exceptions and modifications.**

- **Page 132.** Staff proposes eliminate item (b)5 as roof mounted systems are allowed as an SR in all zoning districts, subject to conical and horizontal surface restrictions of the AZO.
- **Page 132.** A new item (b)5 is the relocation of a portion of the LCID standards from the conditional use section which noted LCIDs under .5 acres were exempt.