



Agenda Abstract

Department: Planning

Authorizing Signature: _____

Submitting Official: Jason Sullivan, Planning Director

Meeting Date:	August 20, 2012
Subject:	Request by Strata Solar for a text amendment to the Chatham County Zoning Ordinance, Section 7.2 Definitions, Section 10.13 Table of Permitted Uses, and Section 14.1 Off-street Parking Requirements to allow various provisions for solar energy.
Action Requested:	See Recommendations
Attachments: (List Individually)	<ol style="list-style-type: none">1. Application packet was provided prior to the May 21, 2012 public hearing.2. Email from Beth Trahos with written comments from the public hearing on May 21, 2012.3. Proposed amendments by Planning staff to Section 7 Definitions, Section 10.13 Table of Permitted Uses, and Section 17.5 Specific Conditions for Conditional Uses Listed in Residential Districts (Attachment A).

Introduction & Background:	<p>(Planning Board meeting information can be seen in bold) A legislative public hearing was held on this request May 21, 2012 and planning staff presented the request with no initial concerns addressed. At the conclusion of the hearing, Planning staff researched and reviewed various ordinances and a recommendation was forwarded to the Planning Board. No one spoke on the item, but written comments were provided by Beth Trahos, representing the applicant.</p> <p>Chatham County approved its first small scale solar farm in January 2012 on an existing parcel where a conditional use district and conditional use permit already existed. During the CUP revision process, interest for locating more solar farms of various sizes in the county was being discussed. Planning staff advised the solar</p>
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Agenda Abstract

	<p>company that research had begun, but was not yet complete and didn't know when the use might be added to the Zoning Ordinance. During discussions, planning staff and the applicant decided a request to amend the zoning ordinance would be in order to speed up the process.</p> <p>The Planning Board met at their regularly scheduled meeting on July 10, 2012. Lance Williams with Strata Solar and Beth Trahos, Attorney, were present to answer questions.</p>
Discussion & Analysis:	<p>The applicant provided language to amend various sections as indicated in the application materials. Planning staff reviewed several other jurisdictions' regulations and compiled an expanded set of guidelines and standards as seen in Attachment No. 3 with modifications recommended by the Planning Board. Staff also reviewed information compiled by the American Planning Association in a Planning Advisory Service report. Solar panels and solar farms are unique because they generate power, but have a limited impact. Once the panels are installed there is relatively little traffic other than for maintenance and no noise. However, there is a visual impact for solar farms that staff thinks should be considered. It is staff opinion that the ordinance needs clarification for solar farms. Currently, solar farms are considered "public utility facilities serving regional areas", which are only permitted in light and heavy industrial districts; however staff thinks they may be appropriate in residentially zoned areas under certain conditions. The proposed amendments provided by staff in Attachment A establish an acreage threshold for solar farms that are permitted by right and those requiring a conditional use permit. Since residentially zoned districts are intended primarily for residential purposes, it would be appropriate to require a conditional use permit for larger facilities to address any concerns that neighbors might have regarding those facilities. Staff would evaluate these standards after several of these facilities are installed to determine if the acreage threshold can be increased. It should also be noted that the Environmental Quality Director has determined that solar panels are not subject to impervious surface limits, so the acreage limits listed in Attachment A would allow for complete coverage with solar panels based on</p>



Agenda Abstract

	<p>research performed over the last 2 months.</p> <p>Planning staff did not address any parking requirements for a solar farm in the recommended text changes, Section 14.1. However, there are recommendations for Section 17 to add sub-section 17.6 General Standards for Solar Farms as outlined in attachment A.</p> <p>During Planning Board discussion, Beth Trahos asked if she could provide alternate recommendations regarding screening in both scenarios and modify the setbacks on the greater than two (2) acre sites.</p> <p>The original recommendation from staff was to require a Type B buffer as defined in Section 12 of the Zoning Ordinance. Ms. Trahos and Mr. Williams both stated that if 40 foot trees were required, they would potentially block the needed sunlight directly affecting the panels. This would cause parts of the site to be non-productive. They also stated a six (6) foot fence is installed around their faculties. During discussions, the Planning Board agreed that screening should be done, but thought there could be a modification that would not interfere with the panels and protect adjacent landowners as well. The revised wording as provided by Mr. Elza is shown in "Attachment A" below.</p> <p>The second modification was to request setbacks on the greater than two (2) acre sites be changed from a 100 foot minimum perimeter setback to a 50 foot perimeter setback provided at least a minimum 100 foot setback is maintained from a public roadway. Mr. Williams and Ms. Trahos agreed to the Planning Board recommendations.</p> <p>All content in "Attachment A" has been recommended by the Planning Board and staff.</p>
Budgetary Impact:	
Recommendation:	Planning staff and Planning Board, by unanimous vote (8), recommend approval of the amendments as outlined in "Attachment A".



Agenda Abstract

ATTACHMENT A

Sections of the Chatham County Zoning Ordinance to be amended for the use of “solar” within the county.

Section 7.2 Definitions

Photovoltaic System – An active solar energy system that converts solar energy directly into electricity.

Solar Collector – A device, structure or a part of a device or structure (i.e. array, panel, etc.) installed for the sole purpose of the collection, inversion, storage, and distribution of solar energy. This device may be roof-mounted or ground-mounted as an accessory use (Refer to Section 17.6 for general standards).

Solar Energy – Radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

Solar Farm – A use where a series of solar collectors are placed in an area for the purpose of generating photovoltaic power for an area greater than the principle use on the site or as the principle use on the site for off-site energy consumption. The use of solar collectors for personal or business consumption that occurs on-site is not considered a solar farm.

Section 10.13 Table of Permitted Uses

	R5	R2	R1	O&I	B1	NC	CB	RB	IL	IH
Solar Farm <less than 2 acres follow Section 17.6	P	P	P	P					P	P
Solar Farm >greater than 2 acres follow Section 17.6	CU	CU	CU	CU					P	P



Section 17.6 Standards for Solar Energy Uses

This section is intended to provide the opportunity for solar energy to serve as a viable form of energy generation while protecting public health, safety, and general welfare. All regulations in the zoning ordinance shall apply unless expressly allowed or modified in the below standards.

- A. Solar collectors shall be permitted as an accessory use to existing structures or facilities in any zoning district under the following standards:
 - 1. Roof mounted solar systems shall not extend beyond the exterior perimeter of the building on which the system is mounted or built.
 - 2. Ground mounted solar systems shall meet the minimum zoning setbacks from property lines for the zoning district in which it is located.
 - 3. The maximum height for a ground mounted solar system under this standard is 15 feet as measured from the grade of the base of the collector to its highest point.
- B. Solar farms on **<less than two (2) acres** in size shall meet the following standards:
 - 1. Collectors and all their components shall not exceed 25 feet in height as measured from the grade of the base of the collector to its highest point.
 - 2. All structures and collectors shall meet a 50 foot minimum perimeter setback from all property lines.
 - 3. In cases where buffers do not exist, a modified version of the Type B buffer as described in Section 12 of the Zoning Ordinance, shall be appropriate to the location of the site, the adjacent land use, and the area topography.
- C. Solar farms on **>greater than two (2) acres** in size shall meet the following standards:
 - 1. A conditional use permit shall be applied for and approved before any activity may proceed on the proposed solar farm site and must comply with Section 17.1 Procedures for Conditional Use Permits.
 - 2. Collectors and all their components shall not exceed 25 feet in height as measured from the grade of the base of the collector to its highest point.
 - 3. All structures and collectors shall meet a 50 foot setback minimum perimeter setback from all property lines with a 100 foot minimum setback from any public roadway where applicable.
 - 4. In cases where buffers do not exist, a modified version of the Type B buffer as described in Section 12 of the Zoning Ordinance, shall be appropriate to the location of the site, the adjacent land use, and the area topography.



Agenda Abstract

D. *All solar farms shall comply with the following:*

- Shall comply with all Building and Electrical codes.
- Shall not create a visual safety hazard for passing motorist or aircraft.
- Shall be removed, at the owner's expense, within one hundred and eighty (180) days of determination by the Planning Department the facility is no longer being maintained in an operable state of good repair or no longer supplying solar power.