Proposed Text Amendment-Report to City Council

Case No. T-2010-02

Meeting Date: June 28, 2010

Staff Contact: Eric S. Hawkins, AICP, Planner III

INFORMATION

Applicable Sections: Article 4: Use Regulations; Article 5: Density, Intensity, & Dimensional Standards; Article 6: Development & Design Standards; and Article 10: Definitions & Rules for Interpretation

Application Date: April 6, 2010

Applicant: Rock Hill Planning Commission

BACKGROUND

At their meeting on March 8, City Council considered an Electric Net Metering Policy as requested by the City Utilities Department. This policy would allow for an electric utility customer to install Customer-owned Renewable Generation (CRG) facilities and sell the excess energy back to the electric utility system and receive credit for the energy delivered. During the discussions about this program, Council recognized the need to establish design standards for solar and other alternative energy facilities and devices. While the existing standards of the zoning ordinance could be applied to these facilities & devices, the unique nature of this technology presents the need for specific standards. Also, the trend toward increasing interest in alternative energy sources warrants new standards for the various types of facilities and devices that have been uncommon or non-existent in our area in the past. The proposed amendments were sponsored by the Planning Commission at their April 6, 2010, meeting.

EXPLANATION OF AMENDMENTS

In developing the proposed regulations, staff reviewed ordinances from jurisdictions across the country and researched the various alternative energy systems that area available. Based on this review and our discussions with experts in the alternative energy field, we found that solar is the only type of alternative energy system that is feasible in our area that presents design issues that should be regulated by zoning. The wind resources in our area are not sufficient to make wind power a cost-effective energy source. Any proposals for wind turbines within the City would be regulated by the standard height limitations of the zoning ordinance. Installations of other types of alternative energy systems (i.e. geothermal) are not readily evident and can be treated the same as standard mechanical equipment from a zoning perspective. Also included is a provision to allow clerestories and skylights to exceed height limits.

The rationale behind the regulations is as follows:

- The preferred location for mounting solar panels is on the roof of a structure. When the panels cannot be mounted on a roof due to efficiency or aesthetic considerations, ground-mounting may be necessary. Ground-mounted solar panels or solar thermal collectors are permitted in all zoning districts as an accessory structure and standards for their location are established. The standards are intended to minimize views of these installations from public streets and residential properties.

- Solar panels are an increasingly common source of power for sign and site lighting. Provisions are included to allow solar panels up to 20 square feet in size to be used for this purpose.

- Solar installations are included in the list of roof penetrations and equipment that must be located on the rear elevations or otherwise configured so views of them are minimized from the street. Provisions are included to permit installations that are visible from the street when they are designed to match the shape, proportion, and slope of the roof. Pictures are included to confirm the intent of these standards.

- Definitions are included for "Solar Thermal Collector", "Solar Installation", and "Solar Panel".

Please note that some neighborhoods may have restrictive covenants that would preclude solar installations, even if the proposal is in compliance with the zoning ordinance. The City is required to inquire about the existence of restrictive covenants and is unable to approve a zoning permit for anything that is not allowed by the covenants.

PUBLIC NOTIFICATION

Staff hereby certifies that the required public notification actions have been completed as follows:

- May 2 & 16- Planning Commission public hearing advertisements published in *The Herald*.

PUBLIC HEARING

The Rock Hill Planning Commission held a public hearing on the proposed amendments at their June 1, 2010, meeting. No one from the public spoke on this item.

STAFF RECOMMENDATION

Staff recommends approval of the proposed amendments.

PLANNING COMMISSION RECOMMENDATION

Following the public hearing at their June meeting, the Planning Commission voted unanimously to recommend approval of the proposed amendments, subject to the addition of a height limit for clerestories and skylights. Staff has added a provision to Section 5-200(D)(1)(d) to limit clerestory and skylight height to 15% of building height or 10 feet, whichever is less.

ATTACHMENTS:

- Proposed Text Amendments

Draft Alternative Energy Regulations
Case T-2010-02

ARTICLE 4: USE REGULATIONS

4-400 ACCESSORY USES AND STRUCTURES

TABLE 4-400(B): TABLE OF PERMITTED ACCESSORY USES

P = PERMITTED **BLANK CELL = PROHIBITED**

ACCESSORY USE TYPE	RESIDENTIAL DISTRICTS									BUSINESS DISTRICTS											PLANNED DEVELOPMENT DISTRICTS					ADDT'L REQUIR E-MENTS
	SF-2	SF-3	SF-4	SF-5	SF-8	MF-8	MF-15	MHP	RH	OI	NO	DTWN	NC	LC	CC	GC	MUC	NMU	IG	IH	IB	PD-R	PD-C	PD-MEC	PD-TND	PD-PED	
Ground-mounted solar panels or solar thermal collectors	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	A	A	A	A	4-400(D) (18)

4-400(D) Accessory Uses and Structures Allowed

(18) Ground-Mounted Solar Installations

In instances where roof-mounting of solar panels or solar thermal collectors is not practicable due to efficiency or aesthetic considerations, ground-mounting may be necessary. Due to differences in scale between residential and commercial/institutional/industrial solar systems, separate standards apply as follows:

(a) *Residential*

1. Must be located to the rear of the principal structure and screened from view from public streets.
2. Must be as close to the ground as practicable and in no case higher than the principal structure.
3. The mounting framework must be neutral in color or screened from view from surrounding residential properties.

(b) *Commercial/Institutional/Industrial*

1. Every effort must be made to completely screen the devices from view from public streets. In instances where complete screening is not possible, the devices must be screened and/or located as to have a minimal visual impact as seen from public streets.
2. Must be as close to the ground as practicable and in no case higher than the principal structure.
3. The mounting framework must be neutral in color or screened from view from public streets.

ARTICLE 5: DENSITY, INTENSITY, & DIMENSIONAL STANDARDS

5-200 MEASUREMENTS AND EXCEPTIONS

5-200(C) Required Yards

(2) Allowable Yard Encroachments

Every part of every required yard shall be open and unobstructed from the ground to the sky except as provided in Table 5-200(A), *Allowable Yard Encroachments*, or as otherwise permitted in this Ordinance.

TABLE 5-200(A): ALLOWABLE YARD ENCROACHMENTS

FEATURE	LIMITATION
Sills and Belt Courses	Shall not project over twelve (12) inches into a required yard
Movable awnings	Shall not project over three (3) feet into a required yard, provided that where the yard is less than five (5) feet in width, the projection shall not exceed one-half (½) of the width of the yard
Chimneys, Fireplaces, Bay Windows, or Pilasters	Shall not project more than two (2) feet into a required yard
Fire Escapes, Stairways, and Balconies(unenclosed)	Shall not project more than five (5) feet into a required yard, or more than three (3) feet into a required yard for a multiple family dwelling, hotel, or motel
Hoods, Canopies, Roof Overhangs, or Foundation Planters, or Marquees	Shall not project over three (3) feet into a required yard, and shall come no closer than one (1) foot to the lot line
Fences, Walls, and Hedges	Permitted in yards subject to the requirements of this section
Cornices, Eaves, and Gutters	Shall not project more than three (3) feet into a required yard, provided that where the yard is less than six (6) feet in width, the projection shall not exceed one-half (½) the width of the yard
Ground-mounted solar panels or solar thermal collectors	Installations that are six feet or less in height shall not project more than two (2) feet into a required yard, based on the required yards for accessory structures. Installations taller than six feet may not encroach into required yards unless approved as a variance by the Board of Zoning Appeals

5-200(D) Height

(1) Definition/Measurement

(d) *Exclusions from Height Limitations*

The height limitations included in Tables 5-100(A) and (B) do not apply to spires, belfries, cupolas, clerestories, sky lights, water tanks, ventilators, chimneys, elevator shaft enclosures, airport control towers, observation towers, or other appurtenances usually required to be placed above the roof level and, excepting airport control towers and observation towers, not intended for human occupancy; however, the heights of these structures or appurtenances shall not exceed twice the height allowed for the primary structure, or any height limitations prescribed by the Federal Aviation Administration. Clerestories and skylights may exceed height limitations with a maximum limit of fifteen percent (15%) of the building height or ten (10) feet, whichever is less. Parapets may exceed height limitations with a maximum limit of thirty (30%) of the building height, or 10 (ten) feet, whichever is less.

ARTICLE 6: DEVELOPMENT AND DESIGN STANDARDS

6-700 EXTERIOR LIGHTING STANDARDS

6-700(E) Design Standards for Exterior Lighting

(8) Solar-Powered Lighting

Solar panels up to a maximum of twenty (20) square feet may be used as a power source for lighting fixtures when mounted on the same pole as the fixture. Solar panels larger than twenty (20) square feet must meet the standards of either Section 6-800 for roof-mounted solar installations or Section 4-400 for ground-mounted solar installations.

6-700(K) Sign Lighting

Lighting fixtures illuminating signs shall comply with the standards of this section, and such fixtures shall be aimed and shielded so that direct illumination is focused exclusively on the sign face. Solar panels up to a maximum of twenty (20) square feet may be used as a power source for sign lighting and shall be located near the ground, in close proximity to the sign, and screened from view from the street to the maximum extent practicable. When necessary to achieve the required sun exposure, such panels may be mounted on a pole no greater than fifteen (15) feet in height. All mounting hardware shall be neutral in color to blend with the surroundings. In no case shall any part of the solar panel or mounting hardware be used for sign message area.

6-800 DESIGN STANDARDS

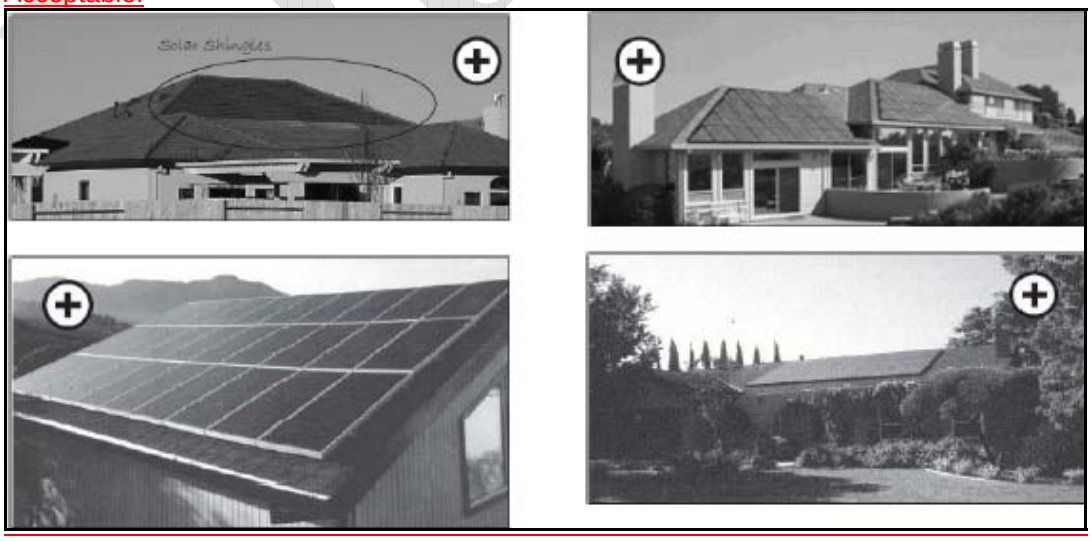
6-800(B) Residential Design Standards

(2) Standards for Single-Family Detached Development

(e) ***Roof Penetrations and Equipment***

All roof vents, pipes, antennas, satellite dishes, solar installations, and other roof penetrations and equipment (except chimneys), shall be located on the rear elevations or otherwise configured to the degree practicable to have a minimal visual impact as seen from the street. Solar installations that are visible from the street must be either composed of building-integrated components (such as solar shingles) that are not readily evident or be designed and mounted to match the shape, proportions, and slope of the roof. See below examples of acceptable and unacceptable visible residential solar installations.

Acceptable:



Unacceptable

6-800(C) Commercial and Institutional Design Standards

(9) Roofs

(c) ***Roof Penetrations and Equipment***

All roof-based mechanical equipment, as well as vents, pipes, antennas, satellite dishes, solar installations, and other roof penetrations (with the exception of chimneys) shall be located, to the degree practicable, on the rear elevations or screened with a parapet or screen wall having a three-dimensional cornice treatment. The cornice of a parapet wall shall include a perpendicular projection a minimum of four (4) inches from the parapet façade plane. This standard is intended to minimize visual impact as seen from:

1. A public street;
2. Public areas of adjacent sites;
3. Vacant land classified as SF-2, SF-3, SF-4, SF-5, SF-8; or
4. Lands containing single-family detached, attached, townhouse, or two- (2) to four- (4) family dwelling development.

Solar installations that are visible from the street must be either composed of building-integrated components (such as solar shingles) that are not readily evident or designed and mounted to match the shape, proportions, and slope of the roof or to serve as a feature of the building (such as awnings). See below examples of acceptable commercial solar installations.

Acceptable:

6-800(D) Industrial Design Standards

(6) Roofs

(c) ***Roof Penetrations and Equipment***

All roof-based mechanical equipment, as well as vents, pipes, antennas, satellite dishes, solar installations, and other roof penetrations (with the exception of chimneys) shall be located, to the degree practicable, on the rear elevations or screened with a parapet wall. As an alternative, "self-screening" mechanical units designed with a finished appearance that can be painted to match the building may be permitted where other screening is difficult or out of scale with the building. This standard is intented to minimize visual impact as seen from:

1. A public street;
2. Public areas of adjacent sites;
3. Vacant land classified as SF-2, SF-3, SF-4, SF-5, SF-8; or
4. Lands containing single-family detached, attached, townhouse, or two- (2) to four- (4) family dwelling development.

Solar installations that are visible from the street must be either composed of building-integrated components (such as solar shingles) that are not readily evident or designed and mounted to match the shape, proportions, and slope of the roof or to serve as a feature of the building (such as awnings).

ARTICLE 10: DEFINITIONS AND RULES FOR INTERPRETATION

10-200 DEFINITIONS

SOLAR THERMAL COLLECTOR

A device that collects heat from the sun and transfers the heat to another location for immediate heating or storage for use later. Solar thermal collectors are typically associated with solar water heating systems.

SOLAR INSTALLATION

A system such as a photovoltaic or solar thermal system that uses the sun's energy to produce electricity or heat.

SOLAR PANEL

A grouping of photovoltaic cells that produce electricity from sunlight.