

Planning Board Memorandum to the City Council

Subject: Zoning Text Amendments for Solar Energy Systems

PLANNING BOARD RECOMMENDATION

At its April 12th meeting the Planning Board voted 5-0 (District 2 vacant, Boudreau absent) to recommend to the City Council approval of the requested text amendments to Chapter 27 Zoning as contained in the draft dated 4-1-16 based on a determination that the proposed amendments are consistent with the City of South Portland's Comprehensive Plan and the Climate Action Plan, with edits to page 61, A4: Addition of Fire Chief to consider location of ground mounted systems relative to buildings, page 63: changing the clause to "to the extent practical," page 36: changing "M" to "J," and page 64: adding "the."

INTRODUCTION

The South Portland Planning Department is bringing forward a proposed set of amendments to the Zoning Ordinance, Chapter 27 of the South Portland Code of Ordinances, intended to enable solar energy systems of different types and sizes to be allowed in South Portland in various zones as accessory, permitted, and/or special exception uses. The amendments also contain standards by which solar energy systems would be regulated.

A legal advertisement providing notice of the public hearing appeared in the Portland Press Herald on March 29 and April 5, 2016, and was posted in City Hall on March 29, 2016. In addition, the proposed amendments and supporting materials were posted on the City's website, and notice of the hearing was provided to local newspapers and to the City Clerk for the City's Community Newsletter.

This submission was reviewed under Section 27-115 (g) Changes and Amendments in Chapter 27 Zoning and for consistency with the Comprehensive Plan and Climate Action Plan.

NEED FOR THE AMENDMENTS

Currently, solar energy systems are only allowed as accessory uses in South Portland and only up to 250 kW. Recently, however, there have been proposals for larger, stand-alone systems, including a potential 660 kW array that the City would install on a portion of its capped landfill. Such systems are not now permitted in any of the City's zoning districts. In addition, the Fire Department has indicated that there is a need for standards to address issues for fighting fires in buildings with rooftop solar systems. Lastly, solar systems are growing in popularity, and it seemed appropriate for the City to anticipate and preemptively mitigate potential areas of conflict.

AMENDMENTS FRAMEWORK

Although many pages are needed to lay out the requested amendments, the structure for the solar zoning proposal is relatively simple. It consists of:

- General definitions (pp. 1-2)
- Permitted and special exception use inclusions in the zoning districts (pp. 2-53)

- Site plan review applicability and submission requirements (pp. 53-54)
- Standards for solar energy systems (pp.54-65)

The **general definitions** set out the four proposed categories of solar energy systems: roof-mounted; small-, medium-, and large-scale ground-mounted. These are based on model ordinances from Massachusetts, Utah, and other states.

The next section, which is the largest, has the **Permitted and Special Exception Use provisions** for all of the zoning districts in the City, including the Shoreland Overlay zone, but not including those for a couple of conditional overlay zones that refer completely to the rules for the underlying zone. The information for this section is summarized in the use table and maps accompanying this memo. In them we see that roof-mounted and small-scale ground-mounted systems are proposed to be allowed in all districts as permitted uses. Medium-scale systems also would be allowed everywhere, but in the residential and mixed-use zones they would need Planning Board approval as special exceptions. Large-scale systems, on the other hand, would not be permitted at all in many districts and would only be allowed as permitted uses in a few.

The **site plan** section spells out that all medium- and large-scale systems would require site plan approval from the Planning Board, even those permitted by right and not as special exceptions. It contains the specific application submission materials that would be needed for applicable solar systems above and beyond those needed for site plan review in general.

The last section of the proposed solar amendments, Standards, can be subdivided into:

- Amending the existing accessory energy standards (pp. 54-55)
- Definitions specific to the solar standards (pp. 55-58)
- Applicability (pp. 58-59)
- Permitting (p. 59)
- Dimensional standards (p. 60)
- Rooftop and small-scale system standards (pp.61-62)
- Additional standards for medium- and large-scale systems (pp. 62-65)

The **amendments to the existing accessory energy standards** are needed because the new solar standards supersede the old ones. What's left are some standards for accessory wind energy systems. It's possible in the future that there will be a need for a set of wind energy amendments similar to the ones for solar, but as the more pressing need is for solar regulations the current proposal only deals with solar systems.

The **definitions** that come next are taken from a variety of model ordinances and are more specific to the standards provisions. It was felt that someone going through a permitted uses section of the Zoning Ordinance to see what is allowed in a particular zone would tend to look in the general definitions section at the front of the Zoning Ordinance to find the definition for an allowed solar use while a person looking through the standards section regarding solar

systems would find it more convenient and logical to look in the solar standards definitions section for the meaning of a particular standards-related term.

The **Applicability and Permitting** sections establish that the proposed new solar provisions apply to all systems built after 4/1/16 and that they need building permits in all cases and Planning Board approval in some cases. In addition, for the purposes of solar energy systems, the City's zoning districts are classified into residential, mixed-use, and non-residential commercial/industrial zones in a way that is slightly different than that used in the overall organization of the Zoning Ordinance (as seen in the Zoning Ordinance's table of contents).

The **Dimensional Standards** are an important part of the proposal. The first consideration is height. The proposal is that, in residential districts, solar panels on roofs would not be allowed to extend higher than the maximum allowed building height. Therefore, homes near their height limit would not be allowed to have solar panels that tilted away from the roof angle. In the other zones, however, roof-mounted solar panels would not count toward building height. This is the same as how chimneys, HVAC systems, antennas, and other equipment are treated. So a building with a flat roof in a mixed-use or non-residential commercial/industrial district would be allowed to have tilted solar panels even if the building was already at its height limit.

For ground-mounted systems, the height limit in residential and mixed-use districts depends on how far the system is located away from the edges of the property. The maximum height is 12 feet but it can be 20 feet if the system is located at least 30 feet from any property line. In the non-residential commercial/industrial zones the height is pegged at the maximum building height for the zone (which generally is much higher than a ground-mounted system would be).

In terms of setbacks, ground-mounted systems must adhere to the setbacks for principal buildings. The model ordinances recommend using the accessory building setbacks, which are less, but based on comments from Planning Board subcommittee members Boudreau and Misiuk and on subsequent comments from the Board as a whole, the setbacks for principal buildings was chosen as being more appropriate.

In addition, the proposed amendments prohibit ground-mounted systems in residential districts from being located a) in front yards unless they are located 100 feet from the property line, and b) in side yards unless sited more than 50 feet from the property line. In all but a few cases, therefore, ground-mounted systems in residential zones would only be allowed in back yards and would have to meet rear yard setbacks (e.g., 20 feet in the Residential A zone).

The last dimensional standard in the amendments is lot coverage. Ground-mounted systems often can be installed without much soil disturbance or paving, so the proposal is that only the paved or otherwise impervious areas of such systems would count toward the lot coverage limitations of a zoning district.

The last sections, **standards for roof-mounted and small-scale ground-mounted systems**, and **additional standards for medium- and large-scale systems**, include a somewhat lengthy list of fire safety requirements, electrical code requirements, and so on that increase as

the size of the system gets larger. The largest systems require a guarantee to ensure that there are funds to be able to remove a system that for one reason or another is abandoned.

REVIEW AND COMMENTS PRIOR TO THE PLANNING BOARD HEARING

The proposed amendments reflect many revisions that were made based on feedback from others. Versions of the proposal were reviewed and commented upon twice by the City's Corporation Counsel, Sally Daggett, Esq., and the draft was reviewed by both Deputy Planning Director & Code Enforcement Officer Patricia Doucette and Community Planner Steve Puleo. The City's Sustainability Coordinator, Julie Rosenbach, and the Energy & Recycling Committee support the proposal. Significant assistance was provided by Planning Board members Linda Boudreau and Isaac Misiuk as well as by the other Board members at a March 8th presentation. Robert McKeagney provided comments as a member of the Conservation Commission. Comments were also provided from Fortunat Mueller, an owner of ReVision Energy, which is one of the State's principal solar installers.

DISCUSSION AT THE PLANNING BOARD HEARING

There were no comments from the public at the hearing (see the excerpt of the Planning Board minutes accompanying this memo). Discussion by the Planning Board members included:

- Distance of ground-mounted systems from buildings (Sec. 27-1590(a), p. 61). Rather than establish another setback the Board decided to include proximity to buildings as another factor—(a)(4)—for the Fire Department to look at when reviewing ground-mounted solar system applications.
- Wording of the anti-glare provision (Sec. 27-1591(d), p. 63). The second sentence read, "However, solar panel placement should be prioritized to minimize or negate any solar glare onto nearby properties or roadways, without unduly impacting the functionality or efficiency of the solar system." The Board decided to change the last clause to "to the extent practical."
- The kind of application someone would need for a small-scale system (building permit with information related to the required standards).
- Typo corrections on pages 36 and 64.

COMPREHENSIVE AND CLIMATE ACTION PLANS

Given that the proposed ordinance amendments will facilitate the adoption of distributed solar energy generation in South Portland, they can be said to be fully consistent with the goals of both the Comprehensive Plan and the Climate Action Plan to reduce greenhouse gas emissions and to meet other energy and environmental objectives.

Attachments

1. Proposed Solar Energy Ordinance Zoning Text Amendments
2. Use Table: Proposed Permitting For Solar Energy Systems
3. Zoning Districts Maps
4. McKeagney Comments
5. Excerpt from the 4-12-16 Planning Board Minutes