

Maine Land Use Planning Commission

Department of Agriculture, Conservation and Forestry



BASIS STATEMENT AND SUMMARY OF COMMENTS FOR AMENDMENTS TO CHAPTER 2: DEFINITIONS, AND CHAPTER 10: LAND USE DISTRICTS AND STANDARDS REGARDING SOLAR RULEMAKING – PHASE I, DEFINITIONS AND USE LISTINGS

December 14, 2022

STATUTORY AUTHORITY

12 M.R.S. §§ 685-A(3); 685-A(7-A); and 685-C(5)

FACTUAL AND POLICY BASIS FOR THE RULE AMENDMENT:

The primary objective of this rulemaking was to revise the Commission's rules regarding solar energy generation facilities. These amendments help improve efficiency and clarity in siting, evaluating, and permitting solar energy generation facilities. Key changes in this rulemaking include the creation of defined size classes for solar energy generation facilities in Chapter 2, and specifying which Land Use Subdistricts will allow solar energy generation facilities in Chapter 10. Revisions also clarify existing definitions and standards related to solar energy development qualifying as accessory structures.

Over the course of 2021 and early 2022, Commission staff conducted research and outreach on solar development in Maine. Efforts included review of certain municipal ordinances and current regulatory approaches in Maine, analysis of LUPC permitting records, discussions with regional staff and Maine DEP staff, and outreach to conservation organizations and the solar development industry. Staff have also followed the outcomes of statewide stakeholder processes and legislative changes.

PUBLIC NOTICE OF RULEMAKING

At a meeting held on September 14, 2022, staff presented the draft rule revisions to the Commission and requested to post the revisions to public comment. The Commission voted to post the revisions to public comment, with a 30 day comment period and a 7 day rebuttal period.

Notice of the rulemaking was provided in the Secretary of State's consolidated rulemaking notice on September 28, 2022. The Secretary of State's notice appeared in the Bangor Daily News, Kennebec Journal, Portland Press Herald, Lewiston Sun-Journal, and the Central Maine Morning Sentinel. E-mail notice was also provided to

approximately 2,637 individuals. These included the Commission’s mailing lists of persons wishing to be contacted regarding proposed rulemaking, and solar energy development. The notice of the rulemaking and the proposed revisions were also posted on the Commission’s web site.

The record remained open until October 31, 2022 to allow interested persons to file written statements with the Commission, and for an additional 7 days until November 7, 2022 to allow interested persons to file written rebuttal comments.

COMMENTS AND RESPONSES:

1. **Topic:** Several commenters expressed general support for the rule revisions.

Commenter(s): E. Townsend, Appalachian Mountain Club
J. Kelly, Prentiss & Carlisle
E. Donoghue, Maine Audubon
R. Wood, The Nature Conservancy
F. Todd

Response: The Commission appreciates the feedback from commenters on this rulemaking.

Action(s): No action.

2. **Topic:** One commenter shared their personal experience adding solar incrementally over time at their home, which is off-grid. They noted that their system would be considered either accessory solar or small-scale solar, seemed to fit under the proposed definitions, and could potentially be permitted almost anywhere in the Commission’s service area provided the site was suitable. If a backup generator was needed, the Commission would want to consider potential impacts on remoteness, or find a way to muffle its sound.

Commenter(s): F. Todd

Response: Proposals for solar facilities larger than 750 sf would require a permit and the Commission would evaluate potential impacts on remoteness and consider the effect a backup generator would have on the area. Backup generators are currently allowed in the M-GN and are commonly associated with residential or commercial uses in the Commission’s service area. Solar facilities smaller than 750 sf do not require a permit but must meet the activity standards for accessory structures in Section 10.27,P. This section incorporates by reference the general permitting standards in Section 10.24, as well as specific standards for noise and lighting in Section 10.27,P,4. Potential impacts to remoteness from back-up generator noise would be addressed under one or both of these sections.

Action(s): No action.

3. **Topic:** One commenter noted that while smaller solar arrays are more likely to be used on-site, solar arrays of various sizes can be built for both on-site and off-site use. For example, a small-scale solar facility could be shared between two or more businesses or residents, in which case one customer may be located off-site; conversely, a grid-scale solar facility could be used entirely on-site, for example by a mill seeking to diversify its energy mix. The definitions could be adjusted to allow for these and other on-site and off-site use cases.

Commenter(s): R. Wood, The Nature Conservancy

Response: The Commission agrees with the commenter that more flexibility is needed to allow for solar development of any scale to support either on-site or off-site uses. While the size and location of a solar energy generation facility can result in impacts to existing uses or resources, how electricity generated by such a facility is used does not.

Action(s): Additions are shown in underline. Deletions are shown with ~~strikeout~~. The following revisions were made to Chapter 2, Definition #221:

221. Solar Energy Generation Facility:

- a. **Accessory Solar Energy Generation Facility.** A freestanding or standalone solar energy system that is intended to convert solar energy into electric or thermal energy for on-site or off-site use, and which has a project area of 750 square feet or less; excluding rooftop installations over existing footprint.
- b. **Small-scale Solar Energy Generation Facility.** A solar energy system that is intended to convert solar energy into electric or thermal energy for ~~an established~~ on-site use or off-site use, and which has a project area of more than 750 square feet but not more than one acre.
- c. **Mid-scale Solar Energy Generation Facility.** A solar energy system that generates electricity for on-site use or ~~commercial sale for~~ off-site use, and which has a project area of more than one acre but not more than ten acres.
- d. **Large-scale Solar Energy Generation Facility.** A solar energy system that generates electricity for on-site use or off-site use, and which has a project area of more than ten acres.

4. **Topic:** One person commented that the definition of “grid-scale” solar energy has varied over time and between contexts. Most recently in Maine, the Legislature, Public Utilities Commission, and some state agencies have generally defined solar facilities that are 5 MW or smaller (less than ~25-35 acres) as “distributed generation” solar facilities, while solar facilities larger than 5 MW (larger than ~25-35 acres) have been considered “grid-scale” facilities. Switching the term “grid-scale” to “large-scale” in the LUPC Ch. 2 definitions may reduce misinterpretation by interested parties.

Commenter(s): R. Wood, The Nature Conservancy

Response: The Commission agrees with the commenter that changing the term “Grid-scale” to “Large-scale” would reduce potential misinterpretation of the term.

Action(s): Additions are shown in underline. Deletions are shown with ~~strikeout~~. The following revisions were made to Chapter 2, Definition #221:

221. Solar Energy Generation Facility:

“...

- d. **Large-scale Solar Energy Generation Facility.** A solar energy system that generates electricity for on-site use, or for commercial sale for off-site use, and has a project area of more than ten acres.”

The following revisions were made to Chapter 10, Sections 10.21,A,3,c,(16), and d,(1); and 10.21,K,1, 3,c,(17), and d,(1):

c. Uses Requiring a Permit

The following uses, and related accessory structures, may be allowed within D-CI subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S. §685-B, subject to the applicable requirements set forth in Sub-Chapter III and, where within 500 feet of Management Class 2 lakes or within 250 feet of Management Class 4 lakes, subject to the applicable requirements of Section 10.25,A,2 and 3:

...

- (16) Solar energy generation facility: Facilities of the following size classes not located on soils recognized by the U.S. Department of Agriculture as prime farmland soils:
 - (a) Small-scale;
 - (b) Mid-scale; and
 - (c) ~~Grid~~Large-scale;

d. Special Exceptions

The following uses, and related accessory structures, may be allowed within D-CI subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S. §685-A(10), the criteria of Sections 10.24,B,3 and 9, and the applicable requirements set forth in Sub-Chapter III:

- (1) Solar energy generation facility: Facilities of the following size classes located on soils recognized by the U.S. Department of Agriculture as prime farmland soils:
 - (a) Small-scale;
 - (b) Mid-scale; and
 - (c) ~~Grid~~Large-scale.

5. Topic: Two commenters recommended clarifying the definition of “project area” by including “generator-lead line” in the list of project elements that constitute the project area. Especially for larger projects, a generator lead line—used to connect the solar array to the grid—can have a significant footprint.

Commenter(s): R.Wood, The Nature Conservancy
E. Donoghue, Maine Audubon

Response: The Commission agrees with the commenters that adding “generator-lead line” as an example would further clarify what the Commission means by “electrical and communications infrastructure,” which was intended to capture a number of different potential project components including all collection lines or lines providing a connection between the project and the grid.

Action(s): Additions are shown in underline. Deletions are shown with ~~strikeout~~. The following revisions were made to Chapter 2, Definition #221:

221. Solar Energy Generation Facility:

“...

Project area includes, but is not limited to, all land area containing new access roads, internal roads, the solar energy generation system (e.g., panels, inverter, battery storage),

electrical and communications infrastructure including generator lead lines, structures, parking, security fencing, and vegetation clearing including shade management areas.

- 6. **Topic:** Two commenters recommended allowing “Mid-scale” solar facilities in the Recreation Facility Development Subdistrict (D-RF) with a permit, in addition to “Small-scale” facilities. A solar array larger than one acre may be needed to meet the energy needs of a moderate intensity recreation facility, for which the D-RF subdistrict is intended. Generally, a solar array between 1 and 10 acres in size can be a compatible use with such a facility.

Commenter(s): R.Wood, The Nature Conservancy
E. Donoghue, Maine Audubon

Response: The Commission agrees with the commenters that allowing for solar facilities up to 10 acres in size in the D-RF with a permit is consistent with the purpose of the subdistrict: “to allow for development of moderate-intensity recreation facilities in locations that would not be suitable for other types of commercial development.” Section 10.21,L,1. Allowing Mid-scale solar with a permit would be compatible with other uses allowed in the subdistrict and provides a way for recreational lodging facilities to meet energy needs on-site and without relying on fossil-fuels (e.g., use of a generator to power the facility).

Action(s): Additions are shown in underline. Deletions are shown with ~~strikeout~~. The following revisions were made to: Chapter 10, Section 10.21,L,3,C; and Section 10.21,L,3,d:

3. Land Uses

c. Uses Requiring a Permit

The following uses, and related accessory structures, may be allowed within D-RF subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S. § 685-B, subject to the applicable requirements set forth in Sub-Chapter III and, where within 500 feet of Management Class 2 lakes or within 250 feet of Management Class 4 lakes, subject to the applicable requirements of Section 10.25,A,2:

...

- (13) Solar energy generation facility: Facilities of the following size class not located on soils recognized by the U.S. Department of Agriculture as prime farmland soils:
 - (a) Small-scale; and
 - (b) Mid-scale;

d. Special Exceptions

...

The following uses, and related accessory structures, may be allowed within D-RF subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S. §685-A(10), the criteria of Sections 10.24,B,3 and 9, and the applicable requirements set forth in Sub-Chapter III:

- (8) Solar energy generation facility: Facilities of the following size class located on soils recognized by the U.S. Department of Agriculture as prime farmland soils:

- (a) Small-scale; and
- (b) Mid-scale.

7. Topic: There were two comments about permitting solar development in the General Management Subdistrict (M-GN).

- a. One commenter urged the Commission to "...use caution in permitting small- and mid-scale facilities in Management Subdistricts. Maine's vast, intact forest is one of our greatest assets. It can play a role in mitigating and adapting to climate change and addressing the loss of biodiversity. The LUPC should strive to avoid its fragmentation."
- b. Another commenter encouraged the Commission to "...revise the proposed rules to include grid-scale solar generation facilities as an allowable use with a permit in the M-GN subdistrict. The permitting process would still allow the LUPC to carefully manage grid-scale solar generation facilities and would merely remove rezoning from the development process. Grid-scale solar generation facilities are limited by proximity to transmission lines and substations, further reducing the number of appropriate sites."

Commenter(s): E. Townsend, Appalachian Mountain Club
J. Kelly, Prentiss & Carlisle

Response: The proposed rule revisions would allow Accessory, Small-scale, and Mid-scale solar energy facilities in the M-GN subdistrict up to 10 acres in size. Solar facilities with a project area larger than 10 acres are allowed with a permit in the Resource Dependent Development Subdistrict (D-RD). An applicant for a project meeting the definition of "Large-scale" would first have to complete the rezoning process and satisfy the relevant rezoning criteria. Rezoning for solar development is based on consistency with the general rezoning criteria in Section 10.08 and additional locational criteria in Section 10.21,K,2,a,(4) addressing topics such as service provision, legal right of access, and proximity to the proposed point of interconnection with the electricity grid.

Based on its experience permitting solar projects, and on research completed as part of the basis for this rule revision, the Commission believes projects larger than 10 acres have more potential for impacts to character, other nearby uses, and wildlife habitat or the environment in general. These potential impacts for large projects are better assessed during the rezoning process, which is a broader review than is applied during the permitting process. Solar facilities under 10 acres in size have less impact on natural resources or the character of an area, and the standards applied during the Commission's permitting process adequately address any potential land use conflicts or environmental impacts. Additionally, the Commission plans further rulemaking on this topic and will consider specific land use standards designed to minimize the impact of solar development at any scale.

Action(s): No action.

8. Topic: Prime Farmland Soils. There were a number of comments about Prime Farmland Soils:

- a. One commenter expressed concern about causing productive farmland to be taken out of production, including land leased for agricultural uses. The Commission should ensure that solar development does not displace agricultural production or impede the ability of farmers to access the land base they need for their operations now and in the future.
- b. One commenter urged the Commission to require avoidance of land classified by NRCS as prime farmland soils or soils of statewide importance. These agricultural soils are most conducive to productive farming and only 14% of the soils in Maine are classified in these categories. We should

protect these soil classifications as valuable natural resources that can help to ensure a robust local and regional food system and food security in our state.

- c. One commenter recommended the Commission guide on-farm solar development to previously-developed, disturbed, degraded, or marginally productive portions of the farm property. Siting solar development on marginal lands on a farm property or on lands with high levels of PFAS contamination could be effective ways of providing economic support to farms without losing important agricultural land to solar development.
- d. One commenter said that throughout the proposed rules, Special Exemptions are listed for solar energy generating facilities located on soils recognized by the U.S. Department of Agriculture as prime farmland soils, and suggested establishing standards or guidance by which to determine whether a proposal qualifies for a Special Exemption. Absent such guidance, the Special Exemption criteria are too vague to make meaningful distinctions – how will staff determine what projects on prime farmland soils will be approved and which will be denied?

Commenter(s): T. Carter, Maine Farmland Trust;
E. Townsend, Appalachian Mountain Club

Response: The Commission recognizes that prime farmland soils are an important and limited resource in the unorganized and deorganized areas of Maine (referred to below as the UT), and that agriculture is an important and traditional part of the economy in rural Maine. The Commission’s statutory charge from the legislature includes encouraging agricultural uses, but also balancing reasonable regulatory protections for natural resources against the rights of residents and property owners to develop their property.

The Commission’s current regulatory approach¹ requires that solar development of a significant size (above 750 sf) get a permit by special exception when located on prime farmland soils, a federal designation by the Natural Resource Conservation Service (NRCS), which does not include Soils of Statewide Importance. This system does not prohibit solar development on prime farmland soils, but rather requires that a project meet additional criteria. The special exception criteria require that “upon decommissioning of the facility all structures and materials associated with the development will be removed, and affected prime farmland soils will be replaced or restored to a state such that they could be utilized for active agricultural production.” (Chapter 10, Section 10.24,B,10) This standard allows farmers and other property owners to pursue solar development on their property, which can sometimes be an important supplemental revenue stream, but ensures that when a project or a portion of a project is located on prime farmland soils, there is a plan in place for restoring or replacing the resource once the solar project has reached the end of its life.

The current rulemaking was not intended to change the special exception criteria, and more research is needed before revising the rules to expand or otherwise change existing protections for prime farmland soils. For example, should the standard require avoidance, or should soils of statewide importance also be specifically addressed in the rule (and if so, how)? The Commission intends to complete additional rulemaking on this topic in the future and at that time would consider specific standards for solar development, including rules addressing site design on working farmland and prime farmland soils.

Action(s): No action taken at this time.

¹ Regarding prime farmland soils, this approach would remain the same following adoption of this rulemaking.