

Title: Proposed Title 16 Amendments to Regulate Solar Energy Systems

Prepared for: Planning Board, Town of Kittery

Prepared by: Department of Planning and Development, Town of Kittery

Date: February 24, 2022

Draft Edition: 3.0

16.1 General Provisions

1 ***16.1.8.C Nonconformance***

2

3

b. Nonconforming structure repair and/or expansion.

4

i. The Code Enforcement Officer may approve the repair and/or expansion of a nonconforming structure provided the proposed expansion is not located in the base zone setback of the Shoreland Overlay Zone or at any location in the Resource Protection Overlay Zone and meets either of the following criteria:

5

6

7

8

9

10

a. A vertical expansion that follows the existing building footprint;

11

12

b. Will not result in setbacks less than those existing;

13

14

c. **Installation or replacement of solar energy systems.**

15

16.3 Definitions

1 **EXISTING DEFINITIONS AMENDED**

3 **HEIGHT OF BUILDING**

5 The vertical measurement from the average grade between the highest and lowest elevation of the
6 original ground level to the highest point of the roof beams in flat roofs; to the highest point on the
7 deck of mansard roofs; to a level midway between the level of the eaves and highest point of
8 pitched roofs or hip roofs; or to a level 2/3 of the distance from the level of the eaves to the highest
9 point of gambrel roofs. For this purpose, the level of the eaves is taken to mean the highest level
10 where the plane of the roof intersects the plane of the outside wall on a side containing the eaves.
11 This is not intended to include weather-vanes, **roof mounted or building integrated solar energy**
12 **systems** or residential antennas that protrude from a roof, but does include all towers, excepting
13 those utilized for amateur radio communications, and other structures. Building height restrictions
14 do not apply to roadside utility poles approved by the Town Council of less than 45 feet in height
15 above ground.

16 **HEIGHT OF STRUCTURE**

17 The vertical distance between the mean original grade at the downhill side of the structure and the
18 highest point of the structure, excluding chimneys, steeples, antennas, **roof mounted or building**
19 **integrated solar energy systems** and similar appurtenances which have no floor area.

20 **PUBLIC UTILITY FACILITY**

21 Buildings, structures, and facilities, including generating and switching stations, poles,
22 lines, pipes, pumping stations, repeaters, antennas, transmitters and receivers, valves, and
23 all buildings and structures relating to the furnishing of utility services, such as electric,
24 gas, telephone, water and sewer, to the public. **This definition excludes solar energy**
25 **system facilities.**

26 **DEFINITIONS TO BE ADDED**

28 **BENEFICIAL HABITAT**

29 **An area of land that provides native perennial vegetation and foraging habitat fitting**
30 **for game birds, songbirds, pollinators and other symbiotic species.**

31 **POLLINATOR**

32 **Bees, birds, bats, and other insects or wildlife that pollinate flowering plants, and**
33 **includes both wild and managed insects.**

Title: Proposed Title 16 Amendments to Regulate Solar Energy Systems
Prepared for: Planning Board, Town of Kittery
Prepared by: Department of Planning and Development, Town of Kittery
Date: February 22, 2022
Draft Edition: 3.0

16.3 Definitions

34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72

SOLAR ACCESS

Space open to the sun and clear of overhangs or shade so as to permit either or both the use of active and passive solar energy systems on individual properties.

SOLAR COLLECTOR

A solar photovoltaic cell, panel, or array or solar thermal collector device, that relies upon solar radiation as an energy source for the generation of electricity or transfer of stored heat.

SOLAR ENERGY

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

SOLAR ENERGY SYSTEM

A device or structural design feature, a substantial purpose of which is to provide daylight for interior lighting or provide for the collection, storage and distribution of solar energy for space heating or cooling, electricity generation, or water heating

SOLAR ENERGY SYSTEM, ACTIVE

A solar energy system whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

SOLAR ENERGY SYSTEM, BUILDING-INTEGRATED

Photovoltaic materials that are used to replace conventional building materials in parts of a building envelope

SOLAR ENERGY SYSTEM, DUAL-USE

The integration of agricultural production with a photovoltaic system that allows for solar energy production while maintaining agricultural activities in such a manner that primary agricultural undertakings including animal grazing, crop or vegetable production can continue simultaneously on that farmland.

SOLAR ENERGY SYSTEM, EQUIPMENT

Electrical material, hardware, inverters, conduit, storage devices, or other electrical and photovoltaic apparatuses associated with the production of electricity.

SOLAR ENERGY SYSTEM, GLARE

Title: Proposed Title 16 Amendments to Regulate Solar Energy Systems
Prepared for: Planning Board, Town of Kittery
Prepared by: Department of Planning and Development, Town of Kittery
Date: February 22, 2022
Draft Edition: 3.0

16.3 Definitions

73 The effect by reflections of light with intensity sufficient as determined in a
74 commercially reasonable manner to cause annoyance, discomfort, or loss in visual
75 performance and visibility in any material respects.

76

SOLAR ENERGY SYSTEM, GROUND-MOUNTED

77 An active solar energy system that is structurally mounted to the ground and is not
78 roof-mounted nor a component of a building; may be of any size (small-, medium-or
79 large-scale).

80

SOLAR ENERGY SYSTEM, LARGE SCALE

81 An Active Solar Energy System whose physical size based on total airspace projected
82 over the ground is greater than 5,000 square feet.

83

SOLAR ENERGY SYSTEM, MEDIUM-SCALE

84 An Active Solar Energy System whose physical size based on total airspace projected
85 over the ground is greater than 1,000 square feet but less than or equal to 5,000 square
86 feet.

87

SOLAR ENERGY SYSTEM, ROOF-MOUNTED

88 An Active Solar Energy System that is mounted on the roof of a building or structure.

89

SOLAR ENERGY SYSTEM, SMALL-SCALE

90 An Active Solar Energy System whose physical size based on total airspace projected
91 over the ground is equal to or less than 1,000 square feet

92

VEGETATION, NATIVE

93 Vegetation that is native to Maine and does not include invasive species.

94

VEGETATION, NATURALIZED

95 Vegetation that is not native to Maine, but is now considered to be well established
96 and part of Maine flora. Naturalized vegetation does not include invasive species.

97

VEGETATION MANAGEMENT PLAN

98 Either or both a written document and site plan that includes short-and long-term
99 site management practices that will provide and maintain native and naturalized
100 vegetation, and in the instances of a dual-use application, the reestablishment of prime
101 agricultural land in the instance fertile land becomes discontinued from agricultural
102 production to accommodate the solar energy system.

103

Title: Proposed Title 16 Amendments to Regulate Solar Energy Systems
Prepared for: Planning Board, Town of Kittery
Prepared by: Department of Planning and Development, Town of Kittery
Date: February 24, 2022
Draft Edition: 3.0

16.4 Land Use Zone Regulation (Table is for facilitation purposes only)

BASE ZONING DISTRICTS																		
LAND USE	R-RL	R-S	R-KPV	R-U	R-V	R-RC	CON	B-L	B-L1	C-1	C-2	C-3	IND	MU	MU-BI	MU-KF	MU-N	
Accessory Uses & Buildings																		
Solar Energy System, Building Integrated	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Solar Energy System, Large-Scale (under 20,000-sf.)	P	P	SE	SE	SE	SE	SE	P	P	P	P	P	P	P	SE	SE	P	
Solar Energy System, Large-Scale (above 20,000-sf.)	SE	SE	-	-	-	-	-	-	-	SE	-	SE	P	SE	-	-	SE	
Solar Energy System, Medium-Scale	P	P	SE	SE	SE	SE	SE	P	P	P	P	P	P	P	SE	SE	P	
Solar Energy System, Small-Scale	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Solar Energy System, Roof-Mounted	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	

Title: Proposed Title 16 Amendments to Regulate Solar Energy Systems
Prepared for: Planning Board, Town of Kittery
Prepared by: Department of Planning and Development, Town of Kittery
Date: February 24, 2022
Draft Edition: 3.0

16.4 Land Use Zone Regulation (Table is for facilitation purposes only)

Shoreland Overlay Zone (OZ-250-SL)																		
LAND USE	R-RL	R-S	R-KPV	R-U	R-V	R-RC	CON	B-L	B-L1	C-1	C-2	C-3	IND	MU	MU-BI	MU-KF	MU-N	
Accessory Uses & Buildings																		
Solar Energy System, Building Integrated	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Solar Energy System, Large-Scale (under 20,000-sf.)	P	P	SE	SE	SE	SE	SE	P	P	P	P	P	P	P	SE	SE	P	
Solar Energy System, Large-Scale (above 20,000-sf.)	SE	SE	-	-	-	-	-	-	-	SE	-	SE	P	SE	-	-	SE	
Solar Energy System, Medium-Scale	P	P	SE	SE	SE	SE	SE	P	P	P	P	P	P	P	SE	SE	P	
Solar Energy System, Small-Scale	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
Solar Energy System, Roof-Mounted	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	

Title: Proposed Title 16 Amendments to Regulate Solar Energy Systems
Prepared for: Planning Board, Town of Kittery
Prepared by: Department of Planning and Development, Town of Kittery
Date: February 24, 2022
Draft Edition: 3.0

16.4 Land Use Zone Regulation (Table is for facilitation purposes only)

Resource Protection Overlay Zone (OZ-RP)																		
LAND USE	R-RL	R-S	R-KPV	R-U	R-V	R-RC	CON	B-L	B-L1	C-1	C-2	C-3	IND	MU	MU-BI	MU-KF	MU-N	
Accessory Uses & Buildings																		
Solar Energy System, Building Integrated	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
Solar Energy System, Large-Scale (under 20,000-sf.)	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Solar Energy System, Large-Scale (above 20,000-sf.)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Solar Energy System, Medium-Scale	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Solar Energy System, Small-Scale	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE	SE
Solar Energy System, Roof-Mounted	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

16.5 General Performance Standards

1 §16.5.34 Solar Energy System, Ground-Mounted

2 A. Purpose:

- 3 (1) Pursuant to the land use and coastal community resilience goals of the Town
4 of Kittery’s Comprehensive Plan, it is deemed to be in the public interest to
5 promote, integrate and regulate sustainable, renewable, non-polluting energy
6 systems that foster the generation, usage and distribution of clean energy;
7 offset demand from the regional power system, and eliminate fossil fuel
8 dependency and emissions.
- 9 (2) The purpose of this section is to encourage the development of ground-
10 mounted solar energy systems while protecting the health, safety and welfare
11 of the public. The standards herein shall include, but not limited to the site
12 location, development, construction, operation, monitoring, modification and
13 removal of such installations that address public safety, minimize impacts on
14 scenic, natural and historic resources, protect residential neighborhoods and
15 properties, and secure as applicable adequate financial assurance for the
16 eventual decommissioning of installations.

17 B. Applicability and Standards

18 (1) Applicability:

- 19 (a). Notwithstanding the provision of 1 M.R.S.A section 302 or any other
20 law to the contrary, the requirements under §16.5.34 shall apply to all
21 ground-mounted solar energy systems modified or installed after the
22 date of its enactment.
- 23 (b). All solar energy systems shall be designed, erected, and installed in
24 accordance with all applicable local, state and federal codes,
25 regulations and standards.
- 26 (c). Any upgrade, modification or structural change that materially alters
27 the size, placement or output of an existing solar energy system shall
28 comply with the provisions of §16.7.13.C

29 (2) General Standards:

- 30 (a). Small-, medium- and large-scale (under 20,000-sf.) solar energy
31 systems shall comply with the following:

32 [1] Emergency services: The applicant shall provide, at the

16.5 General Performance Standards

33 minimum, a copy of the project summary, electrical schematic, and
34 site plan to the Code Enforcement Officer and Fire Chief. Upon
35 request, the applicant shall cooperate with the Fire Department in
36 developing an emergency response plan. All means of shutting
37 down the system shall be clearly marked.

38 [2] Fencing: Where fencing is used, fences shall be
39 constructed to the dimensional standards of a Solid Lock Game
40 Fence that consists of 8-inch x 12-inch openings at the fence's base
41 with progressively small openings at the top. An alternative fence
42 may be use that is elevated at a minimum of 5-inches from the
43 ground with the purpose of allowing the passage of small
44 terrestrial animals. Additionally, at least one (1) corner of the
45 fence's perimeter shall have the placement of five-inch or larger
46 diameter wooded escape poles as an alternative means for wildlife
47 escape.

48 [3] Glare: Solar panels are designed specifically to absorb
49 only sun light and are by their very nature less reflective than other
50 varnished or glass exterior housing pieces. Nevertheless, all solar
51 panels shall contain an anti-reflective coating and a copy of the
52 solar panel's design specification shall be provided, which shall
53 include at the minimum data on the amount of glare intended to
54 project from the solar panels. Moreover, the applicant shall submit
55 information on the methods used to determine the best location of
56 the solar panels for the purpose of averting the encroachment of
57 solar glare onto abutting properties or roadways to the maximum
58 extent practicable.

59 [4] Land clearing, soil erosion, and habitat impacts:
60 Clearing of natural vegetation shall be limited to what is necessary
61 for the construction, operation and maintenance of ground-
62 mounted solar energy systems or as otherwise prescribed by
63 applicable laws, regulations, and Title 16. Ground-mounted
64 facilities shall minimize mowing to the extent practicable. Removal
65 of mature trees shall be avoided to the extent possible. Native,
66 pollinator-friendly seed mixtures shall be used to the extent
67 possible. Herbicide and pesticide use is prohibited, unless

16.5 General Performance Standards

68 demonstrated by the applicant as unequivocally necessary to
69 manage vegetation growth. No prime agricultural soil or
70 significant volume of topsoil shall be removed from the site to
71 install the ground-mounted system or its appurtenant
72 infrastructure.

73 [5] Laws, Ordinances, and Regulations: The construction
74 and operation of ground mounted solar energy systems in
75 conjunction with their appurtenant structures shall adhere to all
76 applicable local, state, and federal regulations and requirements,
77 including but not limited to safety, construction, electrical, and
78 communication requirements.

79 [6] Natural Resources and Wildlife: No large-scale solar
80 energy system shall be located within areas identified as
81 “Significant Wildlife Habitats” under Maine’s Natural Resources
82 Protection Act nor within critical habitat areas as designated by
83 Maine Department of Inland Fisheries and Wildlife.

84 [7] Safety: If storage batteries are located on site as part of
85 the solar energy system, they shall adhere to the requirements of
86 any applicable fire prevention and building code provision when
87 in use and, when no longer used, shall be disposed of in accordance
88 with applicable federal, state and local laws and regulations.

89 [8] Utility connections: All on-site utility lines, excluding the
90 main service connection at the utility right-of-way shall be
91 underground within the facility unless demonstrated by the
92 applicant to be physically impracticable.

93 (b). Large-scale solar energy systems (above 20,000-sf.) shall comply with
94 the following:

95 [1] Emergency services: The applicant proposing a large-
96 scale ground-mounted solar energy system larger shall provide, at
97 a minimal, a copy of the project summary, electrical schematic,
98 and site plan to the Code Enforcement Officer and Fire Chief.
99 Upon request, the applicant shall cooperate with the Fire
100 Department in developing an emergency response plan. All means
101 of shutting down the system shall be clearly marked. The applicant

16.5 General Performance Standards

102 shall provide to the Code Enforcement Officer the name and
103 contact information of a responsible person for public inquires
104 throughout the life of the installation.

105 [2] Financial surety: The deposit, executions, or filing with
106 the Town Clerk of cash, bond, or other form of security reasonably
107 acceptable to the Town of Kittery, shall be in an amount sufficient
108 to ensure the good faith performance of the terms and conditions
109 of the permit issued pursuant hereto and to provide for the
110 removal and restorations of the site subsequent to removal. The
111 amount of the bond or security shall be 125 % of the cost of
112 removal of the large-scale solar energy system and restoration of
113 the property with an escalator of [2] % annually for the life of the
114 solar energy system. The decommissioning amount shall be
115 reduced by the amount of the estimated salvage value of the solar
116 energy system. In the event of default upon performance of such
117 conditions, after proper notice and expiration of any cure periods,
118 the cash deposit, bond, or security shall be forfeited to the Town of
119 Kittery, which shall be entitled to maintain an action thereon. The
120 cash deposit, bond, or security shall remain in full force and effect
121 until restoration of the property as set forth in the
122 decommissioning plan is completed. In the event of default or
123 abandonment of the solar energy system, the system shall be
124 decommissioned as set forth in §16.5.34.B(2)(d) herein.

125 [3] Fencing: Where fencing is used, fences shall be
126 constructed to the dimensional standards of a Solid Lock Game
127 Fence that consists of 8-inch x 12-inch openings at the fence's base
128 with progressively small openings at the top. Alternatively, the
129 Planning Board may modify this standard by permitting a
130 different type of fence that is elevated at a minimum of 5-inches
131 from the ground with the purpose of allowing the passage of small
132 terrestrial animals. Additionally, at least four (4) corners of the
133 fence's perimeter shall have the placement of five-inch or larger
134 diameter wooded escape poles as an alternative means for wildlife
135 escape.

136 [4] Glare: Solar panels are designed specifically to absorb

16.5 General Performance Standards

137 only sun light and are by their very nature less reflective than other
138 varnished or glass exterior housing pieces. Nevertheless, all solar
139 panels shall contain an anti-reflective coating and a copy of the
140 solar panel's design specification shall be provided, which shall
141 include at the minimum data on the amount of glare intended to
142 project from the solar panels. Moreover, the applicant shall submit
143 information on methods used to determine the best location of the
144 solar panels for the purpose of averting the encroachment of solar
145 glare onto abutting properties or roadways to the maximum extent
146 practicable.

147 [5] Land clearing and erosion control: Clearing of natural
148 vegetation shall be limited to what is necessary for the
149 construction, operation and maintenance of ground-mounted solar
150 energy systems or as otherwise prescribed by applicable laws,
151 regulations, and standards within Title 16. Herbicide and pesticide
152 use is prohibited, unless demonstrated unequivocally as necessary
153 to manage vegetation growth. No prime agricultural soil or
154 significant volume of topsoil shall be removed from the site to
155 install the ground-mounted system or its appurtenant
156 infrastructure. Removal of mature trees is discourage and the
157 imposition of mitigation measures or restrictions on tree clearing
158 may be prescribed by the Planning Board in order to prevent
159 habitat fragmentation of existing forested landscapes and to
160 protect hydrological regimes and other essential ecosystem
161 functions. In the instance a site's vegetation is disturbed or must
162 be remove to provide for solar access during the construction of
163 the project, a vegetation management plan is required,
164 demonstrating the creation of a beneficial habitat by using native
165 or noninvasive vegetation in all disturbed areas of the site not used
166 to achieve operational efficacy of the solar energy system.
167 Nevertheless, the Planning Board may approve an alternative
168 vegetation plan that uses native or noninvasive vegetation, but does
169 not necessarily establish a beneficial habitat.

170 [6] Laws, Ordinances, and Regulations: The construction
171 and operation of ground mounted solar energy systems in
172 conjunction with their appurtenant structures shall adhere to all

16.5 General Performance Standards

173 applicable local, state, and federal regulations and requirements,
174 including but not limited to safety, construction, electrical, and
175 communication requirements.

176 [7] Natural Resources and Wildlife: No large-scale solar
177 energy system shall be located within areas identified as
178 “Significant Wildlife Habitats” under Maine’s Natural Resources
179 Protection Act nor within critical habitat areas as designated by
180 Maine Department of Inland Fisheries and Wildlife. Moreover, no

181 [8] Operation and Maintenance Plan: A large-scale ground
182 mounted application shall include a plan for the operation and
183 maintenance of the proposed large-scale ground-mounted solar
184 energy system, which shall include, but not limited to measures for
185 maintaining safe access to the installation, stormwater controls,
186 general procedures for operational maintenance of the installation
187 and a vegetation management plan.

188 [9] Safety: The solar energy system owner or project
189 proponent shall provide a copy of the site plan review application
190 to the Fire Chief for review and comment. The Fire Chief shall base
191 any recommendations of the application upon review of the fire
192 safety of the proposed system. The solar energy systems shall be
193 maintained in good working order and in accordance with
194 industry standards. Site access shall be maintained, including snow
195 removal at a level acceptable to the Fire Department. If storage
196 batteries are located as part of the solar energy system, they shall
197 meet the requirements of any applicable fire prevention and
198 building code when in use and, when no longer used, shall be
199 disposed of in accordance with applicable federal, state and local
200 laws or regulations.

201 [10] Signage: A sign shall be placed on a large-scale solar
202 energy system to identify the owner and provide a 24-hour
203 emergency contact phone number.

204 [11] Utility connections: All on-site utility lines, excluding the
205 main service connection at the utility right-of-way, shall be
206 underground within the facility unless demonstrated by the
207 applicant to be physically impracticable or as prescribed by the

16.5 General Performance Standards

208 public utility provider.
209 [12] Use type: Large-scale ground-mounted solar energy
210 systems greater than 20,000-sf. shall not be considered as an
211 accessory use.

212 [13] Visual Impact: Reasonable effort, as determined by the
213 Planning Board, shall be made to minimize undue visual impacts
214 by preserving native vegetation, screening abutting properties, or
215 other appropriate measures, including adherence to height
216 standards and setback requirements. To demonstrate compliance
217 with this standard, an analysis of the potential visual impacts from
218 the project including solar panels, roads and fencing along with
219 measures used to avoid, minimize, or mitigate inappropriate visual
220 effects is required. Furthermore, all appurtenant structures,
221 including but not limited to equipment, shelters, storage facilities,
222 transformers, and substations, shall be architecturally compatible
223 with each other.

224 (c). Additional standards for solar energy systems:

225 [1] In addition to the standards under §16.5.34.B(2) the
226 following standards shall be followed:

227 [a] In the instance a solar energy system is proposed
228 to be located on agricultural land, a solar energy system
229 shall be designed with the objective of prioritizing
230 primary agricultural activity and constructed in a
231 manner that avoids, to the extent practicable, the
232 discontinuance of agricultural land identified by the
233 Natural Resources Conservation Services as “Prime
234 Farmland” or “Farmland of Statewide Importance”, or
235 otherwise cause productive farmland to be removed from
236 production.

237 [b] In the instant the applicant satisfactorily
238 demonstrates that prime agricultural land is incapable of
239 being preserved, a vegetation management plan shall be
240 provided to the Planning Board for approval.

241 (d). Change of ownership, decommissioning, and abandonment of large-scale

16.5 General Performance Standards

- 242 **solar energy systems:**
- 243 [1] **Ownership change: If the owner or operator of the solar**
244 **energy system changes or the owner of the property changes, the**
245 **approved site plan shall remain in effect, provided that the**
246 **successor owner or operator assumes in writing all of the**
247 **obligations of the site plan approval. A new owner or operator of**
248 **the solar energy system shall notify the Code Enforcement Officer**
249 **of such change in ownership or operator within 30 days of the**
250 **ownership change.**
- 251 [2] **Decommissioning: Solar energy systems that have**
252 **reached the end of their useful life or are abandoned shall be**
253 **removed. The owner or operator shall physically remove the**
254 **installation no more than 180 days after the date of discontinued**
255 **operations. The owner or operator shall notify the Code**
256 **Enforcement Officer by certified mail of the propose date of**
257 **discontinued operations and plans for removal. Notification of**
258 **discontinuance shall be no less than 180-days prior to the**
259 **anticipated date of discontinuance. Decommissioning shall consist**
260 **of the following:**
- 261 [a] **Physical removal of all solar energy systems,**
262 **structures, equipment, security barriers, and**
263 **transmission lines from the site.**
- 264 [b] **Disposal of all solid and hazardous waste in**
265 **accordance with local, state and federal waste disposal**
266 **regulations.**
- 267 [c] **Stabilization or re-vegetation for the site as**
268 **necessary to minimize erosion and restore disturbed**
269 **habitat in accordance with the site’s vegetation**
270 **management plan.**
- 271 [3] **Absent notice of proposed date of decommissioning or**
272 **written notice of extenuating circumstances, a large-scale ground-**
273 **mounted solar energy system shall be considered abandoned when**
274 **it fails to operate for more than one (1) year without having first**
275 **obtained the written consent of the Code Enforcement Officer.**

16.5 General Performance Standards

276 [4] If the owner or operator of the solar energy system fails
277 to remove the installation within 180 days of abandonment or the
278 proposed date of decommissioning, the Town of Kittery retains the
279 right to use all available means to cause an abandoned, hazardous,
280 or decommissioned large-scale ground-mounted solar energy
281 system to be removed.

282 C. Dimensional Standards:

283 (1) Small- and medium-scale solar energy systems shall comply with the following
284 dimensional standards:

285 (a). Setbacks: Notwithstanding any other provision in this title to the contrary, the
286 setbacks for ground-mounted solar energy systems shall be as follows:

287 [1] Minimal front yard:

288 [a] Residential Zones:

289 i. For residential zoning districts, no part of the ground-mounted solar
290 energy system may be placed closer to the front property line (and
291 side property line in a case of a corner lot) than the principal
292 structure to the street

293 ii. Notwithstanding 16.5.34.C(1)(a)[1][a][i], the Planning Board may
294 permit a ground-mounted solar energy system to be closer to the front
295 property line than the principle building under the following
296 conditions:

297 [A]. There is no other suitable location on the property for the
298 ground-mounted solar energy system.

299 [B]. The front setback is maintained.

300 iii. In the instance no building nor distinct principal building is
301 present on the lot or multiple lots, the ground mounted solar
302 energy system shall adhere to the base zone setback and
303 buffered from the road.

304 [b] Commercial, Business and Mixed-Use Zones:

305 i. Whatever the front yard setback for the zoning district, but no
306 less than 10 ft.

16.5 General Performance Standards

- 307 **[2] Minimum rear yard and side yard:**
- 308 i. **Whatever the back yard setback for the zoning district, but no less**
- 309 **than 10 ft.**
- 310 **(b). Lot coverage: Solar energy systems that have vegetation or pervious materials**
- 311 **underneath are exempt from lot coverage standards.**
- 312 **(c). Height: No taller than 10-ft. in height or a height equal to ½ the distance to the**
- 313 **nearest lot line, to a maximum of 20-ft.**
- 314 **[1] Additional setbacks may be required to mitigate visual and functional**
- 315 **impacts.**
- 316 **(2) Large-scale solar energy systems shall comply with the following dimensional**
- 317 **standards:**
- 318 **(a). Setbacks: Notwithstanding any other provision in this title to the contrary, the**
- 319 **setbacks for ground-mounted solar energy systems shall be as follows:**
- 320 **[1] Minimal front yard:**
- 321 **[a] For residential zoning districts, no part of the ground-mounted**
- 322 **solar energy system may be placed closer to the front property line (and**
- 323 **side property line in a case of a corner lot) than the principal structure**
- 324 **to the street.**
- 325 **i. Notwithstanding 16.5.34.C(2)(a)[1][a], the Planning Board may**
- 326 **permit a ground-mounted solar energy system to be closer to the front**
- 327 **property line than the principle building under the following**
- 328 **conditions:**
- 329 **[A]. There is no other suitable location on the property for the**
- 330 **ground-mounted solar energy system.**
- 331 **[B]. The front setback is maintained.**
- 332 **[b] In the instance no building nor distinct principal building is**
- 333 **present on the lot or multiple lots, the ground mounted solar energy**
- 334 **system shall be setback at least 100-ft and buffered from the road.**
- 335 **[c] Commercial, Business and Mixed-Use Zones:**
- 336 b. **No part of the ground-mounted solar energy system may be placed**
- 337 **closer to the front property line (and side property line in a case of**

16.5 General Performance Standards

338 a corner lot) than the principal structure to the street. In the
339 instance no building nor distinct principal building is present on the
340 lot or multiple lots, the ground mounted solar energy system shall
341 be setback at least 75-ft and buffered from the road.

342 **[2] Minimum rear and side yard: 50-ft.**

343 [3] Lot coverage: Solar energy systems that have vegetation or pervious
344 materials underneath are exempt from lot coverage standards.

345 [4] Height: Shall not exceed 20-ft. in height. The height of any solar panel
346 from the ground level shall not exceed 20-ft.

347 [5] Additional setbacks may be required to mitigate visual and functional
348 impacts.

349 §16.5.35 Solar Energy System, Roof-Mounted and Building-Integrated

350 A. Applicability

351 (1) Roof-mounted, building-mounted and building-integrated solar energy
352 systems and equipment are permitted by-right, unless they are deemed by the
353 Code Enforcement Officer, with input from the Fire Chief, to present one or
354 more unreasonable safety risks, including but not limited to, the following:

355 (a) Weight load;

356 (b) Wind resistance;

357 (c) Ingress or egress in the event of fire or other emergency; or

358 (d) Proximity of a ground-mounted system relative to buildings.

359 B. General requirements

360 (1) All solar energy systems installations shall be installed in compliance with the
361 photovoltaic systems standards of the latest addition of the National Fire
362 Protection Association (NFPA1) and of the National Electrical Code (NEPA
363 70), as adopted pursuant to §16.2.8.F(5)(c).

364 (2) Roof-mounted solar energy systems shall not extend more than 10-ft. above
365 the highest point of the roof.

366 C. Inspections

367 (1) Prior to operation, electrical connections must be inspected and approved by
368 the Code Enforcement Officer, or designee.

Title: Proposed Title 16 Amendments to Regulate Solar Energy Systems
Prepared for: Planning Board, Town of Kittery
Prepared by: Department of Planning and Development, Town of Kittery
Date: February 24, 2022
Draft Edition: 3.0

16.7 Site Plan Review

§16.7.3 Applicability

- C. Unless subject to a shoreland development plan review or Right of Way Plan per § 16.7.3A, the following do not require Planning Board approval:
1. Single and duplex family dwellings.
 2. Division of land into lots (i.e., two lots), which division is not otherwise subject to Planning Board review as a subdivision.
 3. Business use as provided in § 16.2.6.D.
 4. **Small-scale ground-mounted solar energy systems below or equal to one thousand (1,000) square feet in area.**

16.7.6. Classification of Projects

- (1) Minor Site Plans shall include the following
 - a. The cumulative construction or addition of fewer than five thousand (5,000) square feet of gross nonresidential floor area.
 - b. Any individual or cumulative construction or addition of five thousand (5,000) square feet or more of gross nonresidential floor area within an approved subdivision.
 - c. The establishment of a new nonresidential use even if no buildings or structures are proposed, that involves the Development of more than twenty-five thousand (25,000) square feet but less than one (1) acre of land.
 - d. **Projects that involve ground mounted solar energy systems greater than one thousand (1,000) square feet, but less than ~~or equal to~~ five thousand (5,000) square feet in area.**
- (2). Major Site Plans shall include projects involving:
 - a. The individual or cumulative construction or addition of five thousand (5,000) or more square feet of gross nonresidential floor area on a lot that is not part of an approved subdivision,
 - b. The individual or cumulative Development of one (1) acre or more land, unless the Development is part of a Site Plan application in an approved subdivision,
 - c. Any mixed-use project that contains residential and non-residential uses,
 - d. Projects that involve Wireless Communication System Facilities (WCSF),
 - e. Projects that require any waiver from performance standards.
 - f. Projects that also require subdivision or special exception approval, or
 - g. Other projects requiring review which are not classified as a minor development.

Title: Proposed Title 16 Amendments to Regulate Solar Energy Systems
Prepared for: Planning Board, Town of Kittery
Prepared by: Department of Planning and Development, Town of Kittery
Date: February 24, 2022
Draft Edition: 3.0

16.7 Site Plan Review

- h. Projects that involve ground-mounted solar energy systems equal to and above five thousand (5,000) square-feet in area.

Formatted: Highlight