To: Gray Town Council
From: Kathy Tombarelli, Town Planner
RE: Proposed changes to Town of Gray Zoning Map & Zoning Ordinance
Changes to: Index, 402.2.2, 402.3.1, 402.4.1 & 2, 402.5.3 & 4, 7 402.8

AMENDMENTS TO TOWN OF GRAY CODE, CHAPTER 402, ZONING, REGARDING COMMERCIAL SOLAR ENERGY SYSTEMS
(Additions are underlined, changes are strikethrough)

CHAPTER 402 – ZONING ORDINANCE

Add to Index:
402.8.10 Commercial Solar Energy Systems Overlay District

ARTICLE II
Definitions

Add to 402.2.2 Definitions:

Commercial Solar Energy System: 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 to be primarily distributed off-site.

Solar Energy System, Ground-Mounted: A solar energy system that is structurally mounted to the ground and is not roof-mounted and is not attached to a building.

Solar Energy System, Medium-Scale: A solar energy system that occupies between 2,000 and 16,999 square feet of surface area; surface area shall be measured by the total surface area of the solar collector at maximum tilt that occupies a given space.

Solar Energy System, Large-Scale: A solar energy system that occupies 17,000 square feet or more of surface area; surface area shall be measured by the total surface area of the solar collector at maximum tilt that occupies a given space.

Solar Array: A group of solar panels.

Solar Panel: A contiguous group of photovoltaic cells that convert sunlight to electricity arranged in a plane and linked in such a way to operate as a single unit measuring less than twenty-five (25) square feet in area. Reflecting mirrors used for directing and focusing sunlight are specifically excluded from this definition.

Tilt: The angle of the solar panels and/or solar collector relative to horizontal of a solar energy system.
ARTICLE 3
Official Zoning Map

Add to 402.3.1 Commercial Solar Energy Overlay District to Town Zoning Map

ARTICLE 4
Zoning Districts

Add to 402.4.1 Zoning Districts Established Districts & Overlay Districts created by the Zoning Ordinance:

15. Commercial Solar Energy Systems Overlay District (CSESOD)

Add to 402.4.2 Zoning District Purposes

K. The purpose of the Commercial Solar Energy System Overlay District is to ensure that the Town of Gray provides the opportunity for businesses to generate electricity from solar energy. The objective is to encourage harnessing solar energy as a renewable, non-polluting, and sustainable resource to minimize fossil fuel emissions. The performance standards associated with this use are designed to balance the practical requirements of solar powered energy and minimize the adverse impacts on the quiet enjoyment of property.

Current K becomes new L

K.L. Purposes of the Resource Protection, Limited Residential and Stream Protection Districts. See the Shoreland Ordinance

ARTICLE 5
Zoning District Regulations

Add to 402.5.3 District Regulations -Table 402.5.3 Table of Permitted Uses and Conditional Permitted Uses:

1. Add Commercial Solar Energy Systems Overlay District Uses to Table (alphabetically #36)

2. Add CSESOD column to Use Table and Conditionally Allow (C) use in the new overlay district

<table>
<thead>
<tr>
<th>TABLE 402.5.3 TABLE OF PERMITTED USES AND CONDITIONAL PERMITTED USES</th>
</tr>
</thead>
<tbody>
<tr>
<td>RRA</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td>36.</td>
</tr>
</tbody>
</table>
Add to Table 402.5.4.A Districts Dimensional Requirements
Footnote “D” to WH-2 Maximum Impervious Surface

<table>
<thead>
<tr>
<th>ZONING DISTRICT</th>
<th>Minimum Lot Area</th>
<th>Minimum Street Frontage</th>
<th>Minimum Area Per Dwelling Unit (Town Water)</th>
<th>Minimum Area Per Dwelling Unit (Private Well)</th>
<th>Maximum Impervious Surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>RRA</td>
<td>80,000 sq. ft.</td>
<td>200 ft.</td>
<td>40,000 sq. ft.</td>
<td>40,000 sq. ft.</td>
<td>N/A</td>
</tr>
<tr>
<td>LD</td>
<td>80,000 sq. ft.</td>
<td>200 ft.</td>
<td>N/A</td>
<td>80,000 sq. ft.</td>
<td>N/A</td>
</tr>
<tr>
<td>MD</td>
<td>40,000 sq. ft.</td>
<td>150 ft.</td>
<td>20,000 sq. ft.</td>
<td>40,000 sq. ft.</td>
<td>N/A</td>
</tr>
<tr>
<td>BD-1</td>
<td>80,000 sq. ft.</td>
<td>200 ft.</td>
<td>40,000 sq. ft.</td>
<td>40,000 sq. ft.</td>
<td>50 %</td>
</tr>
<tr>
<td>BD-2</td>
<td>80,000 sq. ft.</td>
<td>200 ft.</td>
<td>40,000 sq. ft.</td>
<td>40,000 sq. ft.</td>
<td>85 %</td>
</tr>
<tr>
<td>C</td>
<td>40,000 sq. ft.</td>
<td>200 ft.</td>
<td>20,000 sq. ft.</td>
<td>40,000 sq. ft.</td>
<td>65 %</td>
</tr>
<tr>
<td>VC</td>
<td>20,000 sq. ft.</td>
<td>40 ft.</td>
<td>10,000 sq. ft.</td>
<td>10,000 sq. ft.</td>
<td>75 %</td>
</tr>
<tr>
<td>VCP</td>
<td>20,000 sq. ft.</td>
<td>40 ft.</td>
<td>10,000 sq. ft.</td>
<td>10,000 sq. ft.</td>
<td>75 %</td>
</tr>
<tr>
<td>BT-1</td>
<td>40,000 sq. ft.</td>
<td>150 ft.</td>
<td>20,000 sq. ft.</td>
<td>40,000 sq. ft.</td>
<td>50 %</td>
</tr>
<tr>
<td>BT-2</td>
<td>40,000 sq. ft.</td>
<td>150 ft.</td>
<td>20,000 sq. ft.</td>
<td>40,000 sq. ft.</td>
<td>B 10 (30) %</td>
</tr>
<tr>
<td>WH-1</td>
<td>4 Acres</td>
<td>200 ft.</td>
<td>4 Acres</td>
<td>4 Acres</td>
<td>B 10 (30) %</td>
</tr>
<tr>
<td>WH-2</td>
<td>4 Acres</td>
<td>200 ft.</td>
<td>4 Acres</td>
<td>4 Acres</td>
<td>B,D 10 (30) %</td>
</tr>
</tbody>
</table>

A Lots in MD District not served by public water require 80,000 square feet of lot area.

B Impervious surface and lot coverage in BT-2, WH-1, & WH-2 Districts can be increased to 30% of lot with Planning Board approval subject to the requirements of Section 402.8.4 L for recharge protection.

C In accordance with Tables 402.5.4.A & B of the Zoning Ordinance, the Planning Board shall have the authority to reduce the minimum street frontage to fifty (50) percent of the required frontage but in no case less than sixty (60) feet of street frontage, whichever is greater, for lots in a Planning Board approved residential subdivision for one or more lots having street frontage only on a cul-de-sac. In such instances, street frontage shall be measured along the outside radius of the cul-de-sac. Lots which have any street frontage not on a cul-de-sac radius as well as lots in a commercial subdivision shall not be eligible for reduced street frontage.

D For the purposes of issuing a permit for a project to install a commercial medium or large-scale ground-mounted solar energy installation, calculations relating to the impervious surface shall include only the foundation or base supporting the solar panel arrays.
Add to Table 402.5.4.B Building Construction Spatial Standards

Footnote “F” in RRA and WH-2 for calculation of lot coverage
Footnote “G” in RRA for maximum Lot Coverage (WH-2 see footnote B in previous table)

<table>
<thead>
<tr>
<th>ZONING DISTRICT</th>
<th>Maximum Lot Coverage</th>
<th>Minimum Lot Line Setback Front</th>
<th>Minimum Lot Line Setback Side</th>
<th>Minimum Lot Line Setback Rear</th>
<th>Maximum Building Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>RRA</td>
<td>F, G 10 (30) %</td>
<td>50 ft.</td>
<td>B 25 (15) ft.</td>
<td>50 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>LD</td>
<td>20 %</td>
<td>50 ft.</td>
<td>B 25 (15) ft.</td>
<td>50 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>MD</td>
<td>15 %</td>
<td>50 ft.</td>
<td>B 20 (15) ft.</td>
<td>20 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>BD-1</td>
<td>50 %</td>
<td>50 ft.</td>
<td>B 25 (15) ft.</td>
<td>50 ft.</td>
<td>C 35 (53) ft.</td>
</tr>
<tr>
<td>C</td>
<td>50 %</td>
<td>10 ft.</td>
<td>15 ft.</td>
<td>20 ft.</td>
<td>C 35 (53) ft.</td>
</tr>
<tr>
<td>VC</td>
<td>75 %</td>
<td>10 ft.</td>
<td>0 ft.</td>
<td>10 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>VCP</td>
<td>75 %</td>
<td>0 ft.</td>
<td>0 ft.</td>
<td>0 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>BT-1</td>
<td>50 %</td>
<td>25 ft.</td>
<td>D 15 (10) ft.</td>
<td>20 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>BT-2</td>
<td>10 (30) %</td>
<td>25 ft.</td>
<td>D 15 (10) ft.</td>
<td>20 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>WH-1</td>
<td>10 (30) %</td>
<td>50 ft.</td>
<td>B 25 (15) ft.</td>
<td>50 ft.</td>
<td>35 ft.</td>
</tr>
<tr>
<td>WH-2</td>
<td>E 10 (30) %</td>
<td>50 ft.</td>
<td>B 25 (15) ft.</td>
<td>50 ft.</td>
<td>35 ft.</td>
</tr>
</tbody>
</table>

A Height requirements do not apply to flagpoles, chimneys, transmission towers, steeples, windmills or similar structures usually erected at a greater height than the principal building; however, such accessory structures or appurtenances require a lot line setback distance of no less than its height.
B Side setback for non-conforming lots of record in RRA, LD, MD, BD-1, WH-1, & WH-2 Districts is 15 feet.
C Maximum building height in BD-1, BD-2, and C is 53 feet if public water is available and at least two sides of the building are accessible by fire apparatus.
D Side setback in BT Districts is 10 feet if not abutting a residential property.
E For any lot in a BD-2 District, the setback for any property line(s) that abuts another district, including BD-1, shall meet the minimum setback(s) for either the abutting district or BD-1, whichever is less restrictive.
F For commercial medium and large-scale ground-mounted solar energy system installations, lot coverage shall be measured by the total surface area of the solar panel/array at maximum tilt (see figure 402.8.10.D.1)
G Lot coverage in RRA can be increased to 30% only for lots in the Commercial Solar Energy Overlay District and only for commercial medium and large-scale ground mounted solar energy system installations. Planning Board approval subject to the requirements of Section 402.8.4 L for recharge protection is required.
Add the following section:

402.8.10 Commercial Solar Energy Systems Overlay District

A. Applicability

1. Notwithstanding the provisions of 1 M.R.S. § 302 or any other law to the contrary, the requirements of this Article shall apply to all solar energy systems modified or installed after February 21, 2020.

2. Medium & large-scale ground-mounted solar energy systems are permitted in the Commercial Solar Energy Systems Overlay District per Article 4-Zoning Districts, Article 5-Zoning District Regulations and Article 8-Standards Only Applicable in Specific Districts. Such solar energy systems shall obtain a building permit through the Code Enforcement Department following Planning Board site plan approval.

3. All solar energy systems shall be designed, erected, and installed in accordance with all applicable federal, state and local codes, regulations and standards.

4. Any modification, upgrade, or structural change that materially alters the size, placement or output of an existing solar energy system shall comply with this section and 402.10.17.F

B. Dimensional Requirements

1. Height

All components of ground-mounted solar energy system installations shall not exceed fifteen (15) feet in height when oriented at maximum tilt.

C. Setback for Ground-Mounted Solar Energy Systems

1. Notwithstanding any contrary provisions of Table 402.5.4.B, setbacks for ground-mounted solar panels and arrays less than 15 feet in height shall be: twenty-five (25) feet from any lot line. Setbacks for all other structures associated with the use shall be those established by Table 402.5.4.B for the underlying zoning district.
D. Lot Coverage-Calculating Medium or Large-Scale Solar Energy System Installation Surface Area and Maximum Disturbed Area

1. Lot coverage and surface area square footage for medium or large-scale ground-mounted solar energy systems shall be calculated by measuring the total area of the solar array/collector at maximum tilt to the vertical that occupies a given space or mounting surface as depicted in Figure 402.8.10.D.1 below:

![Figure 402.8.10.D.1]

2. The developed area for medium and large-scale ground-mounted solar energy system installations shall be at least ten (10) acres and shall not exceed twenty (20) acres.

E. Impervious Surface – Calculating Impervious Surfaces for Medium or Large-Scale Solar Energy System Installations.

1. Calculations relating to the impervious surface shall include only the foundation or base supporting the solar panel arrays of the solar energy installation as established in footnote D in Table 402.5.4.A in this ordinance.

F. Standards for Medium and Large-Scale Ground-Mounted Solar Energy Systems.

1. All solar energy system installations shall be installed in compliance with the photovoltaic standards of the latest edition of the National Fire Protection Association Fire Prevention Code (NFPA) and National Electric Code (NEC), and International Building Code (IBC).

2. Prior to operation, electrical connections must be inspected and approved by the Code Enforcement Officer or his/her designee, or the State electrical inspector as applicable. The applicant shall be responsible for Town-incurred costs to hire qualified professionals for a third-party inspection for any and all components deemed necessary by the Town CEO.
3. Any connection to the public utility grid must be inspected and approved by the appropriate public utility unless waived by the public utility.

4. A solar energy system shall be maintained as necessary to ensure that it is operating safely and as designed and approved until decommissioned.

5. Utility Connections - Reasonable efforts, as determined by the Planning Board with input from qualified professionals at the applicant’s expense, shall be made to place all utility lines from the solar energy system underground. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

6. Safety - The applicant for Site Plan Review of the solar energy system shall provide a copy of the site plan review application to the Fire Chief or his/her designee, and the Fire Chief shall provide written comment on the fire safety of the proposed system to the Planning Board.

7. Visual Impact - Reasonable efforts, as determined by the Planning Board, shall be made to minimize visual impacts by preserving natural vegetation, screening of abutting properties, and protecting scenic resources.

8. Glare - Solar panel placement shall be prioritized to minimize or negate any solar glare onto nearby properties, public gathering places or roadways, without unduly impacting the functionality or efficiency of the solar energy system.

9. Natural Resources – Reasonable efforts, as determined by the Planning Board, shall be made to protect wetlands, watersheds, working agricultural lands, surface waters, slopes greater than twenty percent (20%) as well as High Value Undeveloped Habitat Blocks, High Value Plant and Animal Habitats and Focus Areas of Ecological Significance as mapped by the Maine Department of Inland Fisheries and Wildlife’s Beginning with Habitat Program.

10. Operations and Maintenance Plan - The Site Plan applicant shall provide (and maintain upon Site Plan approval) an operations and maintenance plan, which shall include measures for maintaining safe access to the installation as well as other general procedures for operational maintenance of the installation.

11. Signage- Signs in the Commercial Solar Energy Systems Overlay District shall comply with all applicable standards in this section and Chapter 406 Sign Ordinance except that the Planning Board shall have the authority to allow one freestanding sign per frontage up to 60 square feet per sign identifying the nature of the project. A minimum of one sign shall be required to identify the owner and provide a 24-hour emergency contact phone number in a location approved by the Planning Board with input from Public Safety.
12. Emergency Services - The owner or operator of a solar energy system shall provide a copy of the project summary, electrical schematic, and Site Plan to the Fire Chief. Upon request, the owner or operator shall cooperate with the Fire Department in developing an emergency response plan. All means of shutting down the system shall be clearly marked on the plan. The owner or operator shall identify a responsible person to the Code Enforcement Officer and the Fire Chief for public inquiries throughout the life of the installation and shall promptly notify the Town when such contact information changes.

13. Installation Conditions - The owner or operator of a solar energy system shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, vegetation control, and the integrity of security measures including Knox box and keys. Site access shall be maintained to a level acceptable to the Fire Chief. The owner or operator shall be responsible for the cost of maintaining any private access road or driveway to the site and to the system.

14. Performance Guarantee – The solar energy system Site Plan applicant shall demonstrate compliance with the performance guarantee requirements of 402.8.10 and 402.10.17.

15. In the event of a change of ownership and/or operator of the Commercial Solar Energy System, the new owner/operator is required to obtain approval of the Staff Review Committee or appropriate entity before commencing operations to ensure they are apprised of the applicable standards under which the use is permitted.


1. Any medium or large-scale solar energy system that has reached the end of its useful life or has been abandoned shall be removed. The owner or operator shall physically remove the installation no more than one hundred and eighty (180) days after the date of the discontinued operations. The owner or operator shall notify the Code Enforcement Officer by certified mail, return receipt requested, of the proposed date of the discontinued operations and plans for removal.

2. Decommissioning shall consist of:

   a. Physical removal of all solar energy systems, structures, equipment, security barriers and transmission lines from the site.

   b. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations; and

   c. Stabilization or re-vegetation of the site as necessary to minimize erosion. The Code Enforcement Officer shall have the authority to allow the owner or operator to leave landscaping or designated below-grade foundations in order to minimize erosion and disruption to vegetation provided compliance to all applicable codes and ordinances.

1. Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, a medium or large-scale solar energy system shall be considered abandoned if it fails to generate electricity for more than one (1) year without first obtaining the written consent of the Code Enforcement Officer. Determination of abandonment shall be made by the Code Enforcement Officer.

2. At the time of approval, the applicant for a medium or large-scale ground-mounted solar energy system shall submit to the Town a performance guarantee to be approved by the Town, in the amount of 150% of the estimated demolition cost of the system, such cost to be determined by the Town Planner or duly designated person with input as needed from the Town Engineer, at the applicant's expense. The performance guarantee must be kept in effect throughout the lifetime of the system; any proposed replacements must be reviewed and approved by the Town. The owner may apply to the Town Planner for the release of the guarantee at such time that it or its assigns remove the system and associated abandoned structures, and such completed removal is found to be satisfactory by the Code Enforcement Officer, in consultation with the Town Planner.

3. If the owner or operator of the medium or large-scale solar energy system fails to remove the installation in accordance with the requirements of this section within one hundred and eighty (180) days of the abandonment of the proposed date of decommissioning, the Town shall use reasonable effort to notify the party that the Town intends to use the performance guarantee and any and all legal or available means necessary to cause an abandoned, hazardous, or decommissioned solar energy system to be removed.

I. Site Plan Review Authority

1. Any application to install a medium or large-scale ground-mounted solar energy systems shall be subject to review by the Planning Board under the Conditional Use, Site Plan, and Subdivision regulations as applicable.