

ZONING REVIEW –Miami Lakes, FL



PZD-1a: Review zoning requirements and identify restrictions that intentionally or unintentionally prohibit solar PV development. Compile findings in a memo. (Required)

To assist your community, the national solar experts at SolSmart have conducted a review of your community's zoning code to assess possible barriers (i.e. height restrictions, set-back requirements, etc.) and gaps related to solar PV development. Below, please find the outcome of their review. By reading the narrative, reviewing the example code language provided, and signing the statement at the bottom of the page, your community will satisfy PZD-1a and be one step closer to achieving SolSmart designation.

Key Findings

Sec. 13-311(6) Design and Architectural Standards:

All buildings and associated landscaping should, to the greatest extent possible, be oriented and placed to minimize direct daily sunlight on walls and windows during the May—October period, and maximize solar exposure of the roof area year-round.

Sec. 13-1504 (3)

Central air conditioning or mechanical equipment located on the roof shall also be substantially screened from view at eye level (five feet six inches above grade) from adjoining properties. Roof-mounted solar powered water heaters, if possible, shall be installed so that they are not visible at eye level (five feet six inches above grade) from the front or side streets.

Sec. 13-869. - Accessory buildings and accessory structures.

“The maximum height of accessory buildings and accessory structures shall be one story, but in no case shall exceed 20 feet”.

Sec. 13-871. - Lot coverage and maximum impervious area.

The maximum lot coverage of all buildings shall be 70 percent. The maximum impervious area on a site shall be 85 percent.

Sec. 13-869. - Accessory buildings and accessory structures.

Accessory buildings and accessory structures shall not be permitted in the front or street side setbacks, and shall be at least five feet from rear and interior side property lines.

Potential barriers in current code language

Section(s)	Element	Reviewer Comments	Example(s) from other codes	Priority level
	Ex. Setbacks, Height Restrictions, Definition, etc.			

Potential gaps in current code language

Element	Reviewer Comments	Example(s) from other codes	Priority level
Definition	<p>The zoning code provides no definition for solar energy systems except solar water heater is mentioned under mechanical equipment. Some municipalities define different types of solar energy, so they can be treated differently, and so that requirements and applicability are clear. These include:</p> <ul style="list-style-type: none"> • Rooftop solar and ground mounted solar • Large, medium and small-scale systems • Solar photovoltaic and solar hot water 	<p>More permissive option: “Solar Energy System: An energy system that consists of one or more solar collection devices, solar energy related ‘balance of system’ equipment, and other associated infrastructure with the primary intention of generating electricity, storing electricity, or otherwise converting solar energy to a different form of energy. Solar energy systems may generate energy in excess of the energy requirements of a property if it is to be sold back to a public utility in accordance with the law.” Renewable Energy Ordinance Framework DVRPC) (Section 2, p.9)</p> <p>Less permissive option: “Solar Energy System: An energy system which converts solar energy to usable thermal, mechanical, chemical, or electrical energy to meet all or a significant part of a structure’s energy requirements.” (Renewable Energy Ordinance Framework, DVRPC) (Section 2, p.9)</p>	High (The definition forms the basis of understanding the solar ordinance.)
Accessory Use and Structures	Solar energy systems are not listed as a by right accessory use all in all districts in the list of general provisions applicable to all zones	Option A: Use tables listing different solar energy types as an accessory use in a major zoning districts with respective regulations.	High (Including solar energy systems in the list of permitted accessory uses and

		<p>Model Zoning for the Regulation of Solar Energy Systems (p. 6, 7) Refer to Appendix A below</p> <p>Option B: “Solar Energy Systems as described in this Article are permitted in all zoning districts as an accessory use to a permitted principal use subject to the standards for accessory uses in the applicable zoning district and the specific criteria set forth in this article.” (Renewable Energy Ordinance Framework, DVRPC) (Section 3, p. 10)</p>	structures in all major districts may reduce system costs, expedite installations, and increase development locally.)
Height	Consider providing an allowance for or exempting solar energy systems from maximum building height in all districts.	<p>Most permissive option: “For a roof-mounted system installed on a flat roof, the highest point of the system shall be permitted to exceed the district’s height limit of up to fifteen (10) feet above the rooftop to which it is attached.” (Renewable Energy Ordinance Framework, DVRPC)</p> <p>Less permissive option: Municipalities can be more restrictive than this, though it is not recommended that they limit to less than six (6) feet above the rooftop surface.” (Renewable Energy Ordinance Framework, DVRPC)</p>	High (Where there is not an allowance or exemption, and where buildings are constructed to a zoning district’s max height, those buildings may be prevented from retrofitting solar.
Lot Coverage	<p>The code does not have any allowances for ground mounted solar systems to be counted towards the pervious requirement.</p> <p>Sec. 13-871. - Lot coverage and maximum impervious area.</p> <p>The maximum impervious area on a site shall be 85 percent.</p>	<p>Most permissive option: “For purposes of determining compliance with building coverage standards of the applicable zoning district, the total horizontal projection area of all ground-mounted and freestanding solar collectors, including solar photovoltaic cells, panels, arrays, inverters, shall be considered pervious coverage so long as pervious conditions are maintained underneath the solar photovoltaic cells, panels, and arrays” (Renewable Energy Ordinance Framework, DVRPC) (Section 4, p.14)</p>	Medium (Counting solar energy systems against lot coverage could limit the implementation of freestanding solar energy systems, especially if the lot in question is near the maximum lot coverage allowed under the code.)

		<p>Less permissive option: “For purposes of determining compliance with building coverage standards of the applicable zoning district, the total horizontal projection area of all ground-mounted and freestanding solar collectors, including solar photovoltaic cells, panels, arrays, inverters and solar hot air or water collector devices, shall be considered ___% impervious coverage. For example, if the total horizontal projection of a solar energy system is 100 square feet, XX square feet shall count towards the impervious coverage standard. For a tracking array or other moveable system, the horizontal Medium (Counting solar energy systems against lot coverage could limit the implementation of freestanding solar energy systems, especially if the lot in question is near the maximum lot coverage allowed under the code.) projection area shall be calculated at a 33-degree tilt angle” (Renewable Energy Ordinance Framework, DVRPC) (Section 4, p.14</p>	
<p>Setbacks</p>	<p>Miami Lakes may want to include dimensional requirements for ground mounted systems such as setbacks from the property line. Sec. 13-869. -Accessory buildings and accessory structures. Accessory buildings and accessory structures shall not be permitted in the front or street side setbacks, and shall be at least five feet from rear and interior side property lines.</p>	<p>More permissive: “The location of the Ground-Mounted System shall meet all applicable accessory-use setback requirements of the district in which it is located.” (Renewable Energy Ordinance Framework, DVRPC) (Section 4, p.13)</p> <p>Less permissive option: “All Ground-Mounted Systems shall be set back a distance of X feet from any property line in a residential zoning district or in conformance with the area and bulk standards for accessory</p>	<p>Low (Municipalities that treat ground-mounted systems as accessory use structures (this is how they may be permitted) can use accessory use regulations for setback (and also height) of ground-mounted systems.)</p>

structures in commercial districts as provided herein.” [\(Renewable Energy Ordinance Framework, DVRPC\)](#) (Section 4, p.13)

Appendix A

Example 1 (Use Tables):

	Residential-1 (R1)	Residential-2 (R2)	Residential-3 (R3)	Commercial (C)	Industrial (I)	Public (P)
PRINCIPAL USE						
Medium-Scale Ground-Mounted Solar Energy System	SPR	SPR	SPR	Y	Y	Y
Large-Scale Ground-Mounted Solar Energy System	SP	N	SPR	SPR	SPR	SPR

Y = Allowed N = Prohibited
SP = Special Permit SPR = Site Plan Review

	Residential-1 (R1)	Residential-2 (R2)	Residential-3 (R3)	Commercial (C)	Industrial (I)	Public (P)
ACCESSORY USE						
Roof-Mounted Solar Energy System	Y	Y	Y	Y	Y	Y
Small-Scale Ground-Mounted Solar Energy System	Y	Y	Y	Y	Y	Y
Medium-Scale Ground-Mounted Solar Energy System	SPR	SPR	SPR	Y	Y	Y

Y = Allowed N = Prohibited
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Resources

- Model Zoning for the Regulation of Solar Energy Systems, Massachusetts Dept. of Energy Resources, 2014.
- Renewable Energy Ordinance Framework, DVRPC, 2016
- https://www.dvrpc.org/EnergyClimate/ModelOrdinance/Solar/pdf/2016_DVRPC_Solar_REOF_Reformatted_Final.pdf
- Solar Friendly Zoning Toolbox, Solar Simplified:
<http://solarsimplified.org/permitting/solar-zoning-toolbox/solarzoningordinance>

I, _____, as _____ of _____, _____, _____, have received the zoning review and read its findings.

Signature _____

Date _____