

ZONING REVIEW – Haddonfield Borough, NJ



PZD-1: Review zoning requirements and remove restrictions that intentionally or unintentionally prohibit PV development. Compile findings in a memo, and commit to reducing barriers to PV during next zoning review.

This SolSmart prerequisite requires communities to (a) conduct a review of zoning requirements, (b) identify restrictions that prohibit PV development, and (c) commit to addressing these barriers during the next community zoning review. To assist your community, the national solar experts at SolSmart have conducted an initial review of your community's code to assess possible obstacles (i.e. height restrictions, set-back requirements, etc.) and gaps. 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-1 and be one step closer to achieving SolSmart designation.

As there are no references to solar in the current code, the development of a solar ordinance may be advisable. Below are some considerations for the creation of such an ordinance. Solar may still be worth adding to the use tables for each district in the existing sections of the code, even solar's status as by-right is established in the solar ordinance.

Gaps in current code language

Element	Best Practice	Reviewer Comments	Example(s) from other codes
Intent/purpose	<ul style="list-style-type: none"> Many municipalities have inserted language explicitly encouraging solar in the section that lays out the intent and purpose of the solar ordinance. 	<ul style="list-style-type: none"> Purpose section includes a statement about using planning to allow for maximum use of renewable energy sources Section 135-3 Purpose. <ul style="list-style-type: none"> L. To promote the conservation of energy through the use of planning practices designed to reduce energy consumption and to provide for 	See P.7-8 of <u>DVRPC Renewable Energy Ordinance Framework</u>

			maximum utilization of renewable energy sources;	
Definitions	<ul style="list-style-type: none"> ● Include in the definition of a solar energy system: solar collectors or solar energy devices used for space heating, space cooling, electric generation, and water heating ● Define and distinguish between large-scale or primary use installations and secondary or accessory use installations 	<ul style="list-style-type: none"> ● No formal definitions of solar energy system or renewable energy systems ● Chapter 135, Article VI (Historic District) Section 135-51 (Design criteria) - J. Solar collector listed as mechanical equipment 	Massachusetts <u>model</u> solar ordinance	
Use-by-right	<ul style="list-style-type: none"> ● Allow small rooftop and ground mount solar installations in all major zoning districts as a use-by-right (allowed without special review) ● Many communities identify and allow for solar installations as accessory uses in every district 	<ul style="list-style-type: none"> ● Accessory use definition is broad: “A use of land or of a structure or portion thereof that is incidental and subordinate and customarily supportive of and to the principal use of the land or structure and located on the same lot with such principal use.” ● Given the Purpose statement regarding renewable energy, it seems unlikely that solar energy systems would not be allowed by right. 	Use Tables P. 3 Massachusetts <u>model</u> solar ordinance	
Encouraging solar-friendly design	<ul style="list-style-type: none"> ● Many municipalities encourage subdivisions to be laid out in an orientation that would maximize either active solar or passive solar benefits. ● Some possible ways to encourage solar include waiving permit fees, providing density bonuses, reducing minimum parking requirements, and mandating solar ready construction. 	<ul style="list-style-type: none"> ● No mention of solar-ready design guidelines or incentives 	See P. 12-13 of APA Essential Info Packet-30 (“Solar Orientation and Siting” and “Solar-Ready Homes”) See P. 2 of APA Solar Briefing Papers (“Creating Incentives”)	
Height	<ul style="list-style-type: none"> ● Provide rooftop solar an exemption from or allowance above building height restrictions ● Identify a maximum allowed ground mount solar height of 10’-15’ 	<ul style="list-style-type: none"> ● Section 135-99: Freestanding air-conditioning units or heat pumps or similar air-handling mechanical or electrical units which are affixed to the ground shall be considered accessory structures. <ul style="list-style-type: none"> ○ Could apply to solar ○ Accessory structures generally have 18’ height max 	P. 7 Massachusetts <u>model</u> solar ordinance	
Lot coverage	<ul style="list-style-type: none"> ● Exempt ground mount solar from lot coverage restrictions that apply to primary buildings 	<ul style="list-style-type: none"> ● N.J.S.A 40:55D-38.1 – Exempts solar panels from calculations of impervious surface or impervious cover 	P. 9 <u>Model Zoning for the Regulation of Solar Energy Systems</u>	
Accessory use maximum	<ul style="list-style-type: none"> ● Exempt solar from the maximum allowable number of accessory uses 	<ul style="list-style-type: none"> ● I see no maximum number of accessory uses 		

Setbacks	<ul style="list-style-type: none"> Require a setback applicable to fences to ground mount solar, rather than a setback required of buildings, or allow solar an exemption from setback requirements Exempt solar from rooftop equipment screening requirements Allow PV installations to be seen from public roadways Limit screening or aesthetic requirements to historic districts Limit setback requirements from roof ridges to 3' and 1.5' from valleys and headwalls to allow access Do not restrict rooftop solar based on a percentage of rooftop coverage (These restrictions may be amendments to the International Fire Code or part of the development regulations instead of the zoning code) 	<ul style="list-style-type: none"> Setbacks are probably those applicable to accessory structures or buildings Section 135-88 Signs. L <ul style="list-style-type: none"> Does "year-round screening of any utility apparatus" include solar energy systems? Probably covered in the 2015 I-codes adopted by NJ. Waiting for clarification. 	<p>P. 7. 8 <u>Model Zoning for the Regulation of Solar Energy Systems</u></p> <p>P.19 <u>DVRPC Renewable Energy Ordinance Framework</u> <u>Historic districts</u></p> <p>San Francisco <u>Solar PV System Safety and Fire Ground Procedures</u> <u>LA PV Fire Safety</u></p>
Aesthetic requirements	<ul style="list-style-type: none"> Do not regulate glare from photovoltaic installations as PV modules use non-reflective glass and are designed to absorb rather than reflect sunlight. PV modules are generally less reflective than windows. Municipalities can defer to the Federal Aviation Administration to regulate potential glare from solar installations on or near airports 	<ul style="list-style-type: none"> I see no provisions regulating glare from solar PV. 	<p>FAA guidance <u>PV at airports</u></p>
Roof top fire safety access and setbacks	<ul style="list-style-type: none"> Allow for small ground mount installations as accessory uses and large, primary use installations through a conditional or special use permit 	<ul style="list-style-type: none"> Nothing preventing, but nothing explicitly stating. 	<p>P. 38 APA's <u>Integrating Solar Energy into Local Development Regulations</u></p>
Glare	<ul style="list-style-type: none"> Code should exempt rooftop solar or small ground-mounted solar from any special permits that may be required for alterations to a lot or structure that contains a preexisting non-conforming use. 	<ul style="list-style-type: none"> Section 135-18: usually need a variance for any structures built, unless there is already a habitable structure and the new structure conforms to yard, height, and lot coverage requirements. This seems like it would apply to solar energy systems. 	<p>P. 20-21 Massachusetts model solar ordinance</p>
Ground mount solar	<ul style="list-style-type: none"> Municipal code should clearly explain the review process for historic districts. Historic commissions and review boards are encouraged to write design guidelines 	<ul style="list-style-type: none"> Chapter 135, Article VI (Historic District) Section 135-51 (Design criteria) - J. Solar collector listed as mechanical equipment <ul style="list-style-type: none"> "shall be located so as to be 	<p>NREL's <u>Implementing Solar PV Projects on Historic Buildings and in Historic Districts</u></p>
Preexisting non-conforming uses			
Historic district guidance			

	<p>that support the development of solar energy systems and are sensitive to the historic preservation goals of the Commission.</p> <ul style="list-style-type: none"> Establish a mechanism to protect solar access and rights (e.g. solar easement for installations) Include active and passive solar provisions (such as orientation) in development and subdivision regulations 	<p>inconspicuous from any public right-of-way."</p> <ul style="list-style-type: none"> N.J.S.A 45:22A-48.2 – "Solar Rights Law" <ul style="list-style-type: none"> HOAs cannot prohibit solar Any HOA regulations may not increase cost of installation by more than 10% of initial installation 	<p>NC Clean Energy Technology Center: <u>Installing Solar Panels on Historic Buildings</u> <u>Wisconsin State Statute §66.0401.</u> <u>Perry, IA Subdivision Regulations</u></p>
<p>Solar access/solar rights</p>	<ul style="list-style-type: none"> Define and regulate solar installations based on the area (e.g. square feet) or impact of the installation rather than the capacity (kW) as efficiencies and technologies change over time Do not regulate based on the use of the energy generated (e.g. requiring that accessory use solar electricity generation be consumed exclusively on-site), as this is often irrelevant to the impact 	<ul style="list-style-type: none"> Best practice is generally to regulate based on area of impact. In other words, it would be more permissive to control the size of systems with height and setback requirements rather than how much energy they produce. This allows for more future improvement in panel efficiency, when more power can be produced with the same panel size. Additionally, to be eligible for net metering in NJ, the generating capacity of a system cannot exceed the customer's annual electric needs, so regulating by capacity is not necessary. 	<p>See p. 19 of <u>Planning and Zoning for Solar in North Carolina</u> Example: <u>Fort Collins, CO</u></p>
<p>Regulate based on the area or impact</p>			

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have read the review above and commit to discussing these gaps at the next community zoning review, scheduled for 8/20/2019, with the goal of addressing them in the code.

Signature 

Date July 11, 2019