

ZONING REVIEW – Bordentown City, 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

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"> No mention of solar. 	See P.7-8 of DVRPC Renewable Energy Ordinance Framework
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 	<ul style="list-style-type: none"> No definitions for solar. 	Massachusetts model solar ordinance

	<ul style="list-style-type: none"> Define and distinguish between large-scale or primary use installations and secondary or accessory use installations 		
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"> Does not appear that solar is prohibited as an accessory use in residential zones, but it would be more supportive to include it as one of the accessory uses explicitly permitted. The following districts only allow specific accessory uses which do not include solar: <ul style="list-style-type: none"> LC Local Commercial, HC Highway Commercial, CI Commercial Industrial <ul style="list-style-type: none"> Permitted as a primary use 	Use Tables P. 3 Massachusetts model 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"> I see no solar-friendly design guidelines. 	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"> Accessory structure height is 25', which is very permissive. 	P. 7 Massachusetts model solar ordinance
Lot coverage	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 Model Zoning for the Regulation of Solar Energy Systems
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 	<ul style="list-style-type: none"> 10' setbacks from rear and side yards is okay, but best practice is the same setback as fences. 	P. 7, 8 Model Zoning for the Regulation of Solar Energy Systems
Aesthetic requirements	<ul style="list-style-type: none"> Exempt solar from rooftop equipment screening requirements Allow PV installations to be seen from public roadways Limit screening or aesthetic requirements to historic districts 	<ul style="list-style-type: none"> I see screening requirements for only HVAC units and vents. I see no other limits on solar PV aesthetics. 	P.19 DVRPC Renewable Energy Ordinance Framework Historic districts

Rooftop fire safety access and setbacks	<ul style="list-style-type: none"> 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"> This should be covered in the 2015 I-codes that NJ has adopted. 	San Francisco Solar PV System Safety and Fire Ground Procedures LA PV Fire Safety
Glare	<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"> Section 300-23 states: "No use shall be permitted in any district which creates danger to life, limb or property or which emits any objectionable noise, smell, smoke, dust, gas, glare or effluent." This most likely will not pertain to solar, as NJ MLUL states that solar is an inherently beneficial use. 	FAA guidance PV at airports
Ground mount solar	<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"> Currently not addressed. 	P. 38 APA's Integrating Solar Energy Into Local Development Regulations
Preexisting non-conforming uses	<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"> My understanding is that solar can be installed on existing non-conforming use structures without a special permit. 	P. 20-21 Massachusetts model solar ordinance
Historic district guidance	<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 that support the development of solar energy systems and are sensitive to the historic preservation goals of the Commission. 	<ul style="list-style-type: none"> I do not see any guidance for historic districts related to solar. 	NREL's Implementing Solar PV Projects on Historic Buildings and in Historic Districts NC Clean Energy Technology Center: Installing Solar Panels on Historic Buildings
Solar access/solar rights	<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 	<ul style="list-style-type: none"> Solar access is required in planned low-residential developments <ul style="list-style-type: none"> Section 300-47 A20 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 	Wisconsin State Statute §66.0401. Perry, IA Subdivision Regulations

Regulate based on the area or impact	<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 	<p>than 10% of initial installation</p> <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 Planning and Zoning for Solar in North Carolina Example: Fort Collins, CO</p>
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John C Brodowski

[Name]

Deputy Mayor

[Title]

City of Bordentown

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NJ

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have read the review above and commit to discussing these gaps at the next community zoning review, scheduled for Spring 2020, with the goal of addressing them in the code.

Signature

[Handwritten Signature]

Date

7/26/19