



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"> No definitions for solar energy systems or alternative energy systems. 	See P.7-8 of <u>DVRPC Renewable Energy Ordinance Framework</u>
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 		Massachusetts <u>model solar ordinance</u>
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 	<ul style="list-style-type: none"> Solar energy systems are neither allowed nor disallowed as accessory uses. 	Use Tables P. 3 Massachusetts <u>model solar ordinance</u>

Encouraging solar-friendly design	every district	<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"> • There are currently no incentives or mandates encouraging or requiring solar-friendly design. <p>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")</p>
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"> • Max height for accessory structures is currently 14'. 	P. 7 Massachusetts model solar ordinance
Lot coverage	Exempt ground mount solar from lot coverage restrictions that apply to primary buildings		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 		
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"> • Fence setbacks are 1' for every 1' in height above 6'. • Accessory structure setbacks are generally 10' or less from the side and 10' or less from the rear, depending on the district. 	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"> • Screening required for outdoor electrical or other utility equipment. Screening to lessen visual impact shall consist of trees, shrubbery and other such living landscaping. This can be restrictive if solar PV is included in these regulations, and using trees could cause too much shade for the panels to perform efficiently. 	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"> • No restrictions on rooftop setbacks found. 	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 	<ul style="list-style-type: none"> • There are no provisions regulating glare from solar PV. 	FAA guidance PV at airports

	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		
Ground mount solar	• Allow for small ground mount installations as accessory uses and large, primary use installations through a conditional or special use permit	• Not explicitly allowed or disallowed	P. 38 APA's <u>Integrating Solar Energy into Local Development Regulations</u>
Preexisting non-conforming uses	• 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.	• Current ordinance states that preexisting non-conforming use structures may be altered as long as they conform to all height and setback requirements of the district. Special exceptions must be sought to alter non-conforming uses further.	P. 20-21 Massachusetts model solar ordinance
Historic district guidance	• 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.	• There is a Cluster Development Overlay which can protect historically significant structures, but no Historic District was found.	NREL's <u>Implementing Solar PV Projects on Historic Buildings and in Historic Districts</u> NC Clean Energy Technology Center: <u>Installing Solar Panels on Historic Buildings</u>
Solar access/solar rights	• 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	• Easements are defined and listed in the Subdivision and Land Development ordinance, but solar easements are not specifically mentioned. • No active or passive solar provisions found.	<u>Wisconsin State Statute §66.0401. Perry, IA Subdivision Regulations</u>
Regulate based on the area or impact	• 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		See p. 19 of <u>Planning and Zoning for Solar in North Carolina</u> Example: <u>Fort Collins, CO</u>

I, KYLE BROWN, as ASSOCIATE PLANNER of WHEELER, PA
 [Name] [Title] [Community/TWP] [State]
 have received the zoning review and read its findings.
 Signature [Signature] Date 9/17/2017