

ZONING REVIEW – Kennett Square Borough, PA



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.

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"> 23-3 - Purpose: b-1 <ul style="list-style-type: none"> To provide, promote, protect and facilitate one or more of the following: The public health, safety, morals, general welfare... the provisions of adequate sun, light and air... This could be seen as encouraging solar, but including that support more explicitly within an additional solar ordinance would be more encouraging. 	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 	<ul style="list-style-type: none"> ● 23-7 - Definitions. <ul style="list-style-type: none"> ○ "Solar access" means the capability of receiving direct sunlight between 9:00 a.m. and 3:00 p.m. (solar time) on any area of a lot not within required yard areas. ● Should consider adding definitions of solar energy systems. 	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 every district 	<ul style="list-style-type: none"> ● 23-30 - Accessory uses. <ul style="list-style-type: none"> ○ "In General. An Accessory use on the same lot and customarily incidental to a permitted principal use is permitted by right." ○ However, solar is not explicitly mentioned. 	Use Tables P. 3 Massachusetts <u>model solar ordinance</u>
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-friendly design in Zoning or SALDO 	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"> ● 23-7 - Definitions. <ul style="list-style-type: none"> ○ No accessory structure shall exceed fifteen feet in height, ○ Also in 23-30; c2Bi ● 15' falls within the best practices for ground mount solar 	P. 7 Massachusetts <u>model solar ordinance</u>

Lot coverage	Exempt ground mount solar from lot coverage restrictions that apply to primary buildings	<ul style="list-style-type: none"> • No language on whether ground mount solar applies to impervious surface or lot coverage • 23-48 c <ul style="list-style-type: none"> ○ "Impervious cover" means the percent of the lot area covered by surfaces that have a runoff coefficient of 0.8 or higher. In case of uncertainty, the borough engineer shall have the authority to determine the runoff coefficient of a type of material. • Guidance from Model Zoning for Massachusetts: <ul style="list-style-type: none"> ○ " it is recommended that solar energy systems with grass or another pervious surface under them be exempted from lot coverage or impervious surface calculations. ○ If the area is to be paved or otherwise rendered impervious then this land area should in fact count toward any coverage or impervious surface limit. ○ It is also important to note that this recommended exemption is not intended to apply to municipal stormwater regulations, as the panels could have the effect of altering the volume, velocity, and discharge pattern of stormwater runoff. " 	P. 9 <u>Model Zoning for the Regulation of Solar Energy Systems</u>
Accessory use maximum	• Exempt solar from the maximum allowable number of accessory uses	<ul style="list-style-type: none"> • 23-30 c2Biv <ul style="list-style-type: none"> ○ "No more than two accessory structures, including a private detached garage, shall be located in any district, on one lot unless on a lot that is fifteen thousand square feet or larger in size. Lots of between fifteen thousand and twenty-nine thousand square feet may have no more than three accessory structures; larger lots may have one additional structure for each additional fifteen thousand square feet of lot size." ○ Would be most permissive to exclude ground mount solar from the number of allowable accessory uses. ○ Rooftop systems are not affected by this restriction, but it would be good to state that explicitly in the ordinance. 	

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"> 23-30 c2B <ul style="list-style-type: none"> Unattached accessory structures may be erected in rear yard if <ul style="list-style-type: none"> Height of no more than 15 ft, no less than 3 ft from side and rear lot lines. 3 ft from rear yard is permissive. 	<p>P. 7, 8 <u>Model Zoning for the Regulation of Solar Energy Systems</u></p>
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"> 23-9 Application of district regulations. <ul style="list-style-type: none"> Landscaped planting and buffer areas. Along a side or rear property line which is adjacent to a residential or institutional district, the owner shall place and maintain a planting area fifteen feet in width, containing hedges, evergreens, shrubbery or suitable vegetation of sufficient planted density to produce a total visual screening consistent with the topography. Wherever possible, the owner shall make every effort to retain existing natural screening such as vegetation and topography. "Natural evergreen plant screening shall be required around all yard-mounted satellite earth stations to the maximum extent possible without obstructing the sight line of the station." <ul style="list-style-type: none"> This language for satellite earth stations would also be okay for ground mount solar if the Borough is uncomfortable not requiring screening. 	<p>P. 19 <u>DVRPC Renewable Energy Ordinance Framework</u> <u>Historic districts</u></p>
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 is covered in the 2015 IFC adopted by Pennsylvania. 	<p>San Francisco <u>Solar PV System Safety and Fire Ground Procedures</u> <u>LA PV Fire Safety</u></p>

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"> 23-56 - Light, glare and heat control. <ul style="list-style-type: none"> (a) All uses shall minimize the production of light, heat or glare that is perceptible beyond any property line of the lot which the light, heat or glare is produced. This seems to mostly be geared toward lighting. However, this could be restrictive. I would add a line about how property owners "should" locate the panels in such a way as to be most effective with the least amount of visual impact, rather than "shall" minimize glare. <ul style="list-style-type: none"> Are glare studies for solar installations generally provided? 	<p>FAA guidance <u>PV at airports</u></p>
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"> Ground mount installations not explicitly stated as an allowed use, but the definition for allowed accessory uses is pretty broad. In practice, ground mounted installations are considered accessory structures. 	<p>P. 38 AP's Integrating Solar Energy into Local Development Regulations</p>
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"> I don't see anything restricting accessory uses for preexisting non-conforming use lots. 	<p>P. 20-21 Massachusetts model solar ordinance</p>
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"> No mention of solar. Consider adding considerations for solar PV in any historic district guidance. 	<p>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></p>

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"> These easements would currently be done possibly through deed restrictions. No orientation or other solar rights laws. 	<u>Wisconsin State Statute §66.0401.</u> <u>Perry, IA Subdivision Regulations</u>
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 	<ul style="list-style-type: none"> In general, this can be done with height and setback regulations. It is also handled by the states in some situations. <ul style="list-style-type: none"> The Pennsylvania Utility Commission (PUC) limits system sizes eligible for net metering based on use: <ul style="list-style-type: none"> 50 kW capacity limit for residential 1 MW capacity limit for non-residential 3 MW capacity for microgrid and emergency systems 	See p. 19 of <u>Planning and Zoning for Solar in North Carolina</u> Example: <u>Fort Collins, CO</u>

I, Joseph Scalise [Name], Borough Manager [Title], Borough of Kennett Sq [Community], PA [State] have read the review above and commit to discussing these gaps at the next community zoning review, scheduled for TBD, with the goal of addressing them in the code.

Signature [Signature] Date 7/22/19