ZONING REVIEW – Naperville, IL

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.

Potential barriers in current code language

Section(s)	Element	Reviewer Comments	Example(s) from other codes	Priority level
	Ex. Setbacks, Height Restrictions, Definition, etc.			
6-15-5.2.1	**Height**	The zoning ordinance does not permit building-mounted solar energy systems to exceed the maximum building height. It is a best practice to either exempt solar energy systems from height limits or permit solar energy systems to exceed the maximum building height in all applicable districts. For buildings that are already built to the maximum height limit – especially buildings with flat roofs - this may limit their ability to install solar. This is particularly critical on flat buildings, because solar installations on these structures are typically done at an angle to maximize system efficiency (generally at the same angle as the	**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 (15) feet above the rooftop to which it is attached." (Renewable Energy Ordinance Framework, DVRPC) **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)	**Medium** (Allowing the solar energy system to exceed the district's maximum height limit is critical, especially to allow for solar energy systems to be installed where buildings may have already met the maximum building height. It is also important for system efficiency, as discussed in the column to the left.)

		latitude at which the system is installed). Therefore, additional height is often necessary.		
6-15-5.2.2	**Height**	The zoning ordinance limits ground-mounted systems to six (6) feet in height. Panels are roughly six feet in height, so the current ordinance language could limit the size of systems particularly those with two rows of panels. Ground-mounted systems also have racking structures that are a few feet off the ground, therefore, additional height is needed. The best practice is to allow approximately fifteen (15) feet in height for ground-mounted systems.	**More permissive option:** Ground or pole-mounted solar energy systems shall not exceed 20 feet in height when oriented at maximum tilt (Grow Solar Illinois Toolkit) **Less permissive option:** Current language in 6-15-5.2.2	**Medium** (Allowing the solar energy system to exceed the district's maximum height limit is critical, especially to allow for solar energy systems to be installed where buildings may have already met the maximum building height. It is also important for system efficiency, as discussed in the column to the left.)
6-15-5.1.2.1	**Conditional use: Ground-mounted**	The zoning ordinance requires ground-mounted solar energy systems to obtain a conditional use permit. It is a best practice to permit ground-mounted solar energy systems in residential districts in rear and side yards as by-right accessory uses.	**More permissive option:** See excerpt below from the Massachusetts Model Code. **Less permissive option:** Current language in 6-15-5.1.2.1	**Low** (Allowing solar as by-right accessory use will significantly reduce installation times and costs, which should encourage further development of solar energy.)

More permissive option (Massachusetts Model Solar Ordinance)

Example 2 (Uses listed):

1.0 Residential District Uses

1.1 Uses Permitted

1.1.1 Roof-Mounted Solar Energy Systems
1.1.2 Small-Scale Ground-Mounted Solar Energy Systems

1.2 Uses Allowed through Site Plan Review

1.2.1 Medium-Scale Ground-Mounted Solar Energy Systems
1.2.2 Large-Scale Ground-Mounted Solar Energy Systems in the R3 District

1.3 Uses Allowed via Special Permit

1.3.1 Large-Scale Ground-Mounted Solar Energy Systems in the R1 District

2.0 Non-Residential District Uses

2.1 Uses Permitted

2.1.1 Roof-Mounted Solar Energy Systems
2.1.2 Small-Scale Ground-Mounted Solar Energy Systems
2.1.3 Medium-Scale Ground-Mounted Solar Energy Systems

2.2 Uses Allowed through Site Plan Review

2.2.1 Large-Scale Ground-Mounted Solar Energy Systems

Potential gaps in current code language

Element	Reviewer Comments	Example(s) from other codes	Priority level
Ex. Setbacks, Height Restrictions, Definition, etc.			
Encroachment	Sec. 6-2-3: allows other elements, such as eaves, sills, and cornices to encroach into the required setback. It is a best practice to allow ground-mounted energy systems a modest encroachment into the setback.	**More permissive option:** (1) Small- and medium-scale ground-mounted solar energy systems accessory to principal use may be located no closer than [1/2 of the setback that would otherwise apply] from the front, side or rear lot line. All ground-mounted solar energy	**Low** (The City may want to consider reducing the setback requirements for solar energy systems and/or allow them to

		systems in residential districts shall be installed either in the side yard or rear yard to the extent practicable (Massachusetts Dept. of Energy Resources, Model Zoning for the Regulation of Solar Energy Systems) **Less permissive option:** (2) Small- and medium-scale ground-mounted solar energy systems accessory to a principal use may be located no closer than [twenty (20) feet] from the front, side or rear lot line. All ground-mounted solar energy systems in residential districts shall be installed either in the side yard or rear yard to the extent practicable. (Massachusetts Dept. of Energy Resources, Model Zoning for the Regulation of Solar Energy Systems)	encroach reasonably into the setback so that they can receive adequate sunlight to make them efficient.)

Additional notes

Consider applying for PZD-4 if the city hasn't already.

I, _____ [Name] , as _____ [Title] of _____ [Community] , _____ [State] , have received the zoning review and read its findings.

Signature _____ Date _____