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Land Use Issues for Solar Development

Laurel Passera

Land characteristics needed for solar

- 5-7 acres per MW
  - Most commercial, industrial and residential sites are not large enough
- Proximity to utility point of interconnection
  - Ideally within 300ft of a three-phased line that can accommodate additional capacity
- Quality roads
- Nearby electric load
- Non-wetland, non-sensitive land
- Less than 5% slope

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Agricultural land

It is also important to understand what is meant by agricultural land. It can refer to:

- Land designated or zoned as agricultural,
- Land with the potential for agriculture based on certainty qualities (e.g., high quality soil), or
- Land that is actually in an agricultural use (i.e., being farmed).

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Prime soils

- Prime soil designation does not mean the property is being used for agriculture, just that it has characteristics that are conducive to farming (e.g. slope, fertility, permeability, flood zones, etc)
- Prime soil designations are often based on federal and state surveys, some of which are not updated for years or decades.
- They are not site-specific - each property will be a patchwork of soils

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Benefits to landowner

- Solar leases can run $800 to $1,200 an acre, whereas farmers typically lease crop or pasture land from anywhere from $25 to $175 per acre
- Allowing a landowner to carve off some less-productive land and lease it to a solar developer can provide some financial security so that they do not have to sell the property to a residential developer, entailing a permanent loss of the land.

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Decommissioning

- The Agricultural Impact Mitigation Agreement (AIMA) requires solar developers to have a decommissioning plan and put down an upfront bond to ensure that it is achievable.

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Drainage tiles

- Solar developers working in IL understand how important drainage tiles are to IL farmers so they work to mitigate damage.

- The AIMA also requires developers to repair any drainage tiles that are damaged in the course of solar development.

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Other important factors to consider

- Many solar projects are incorporating pollinator-friendly plantings that improve the pollination of neighboring crops
  - Soybeans yields, for example, have been reported to increase by up to 18% when utilizing pollinators
- Illinois farmland covers nearly 27 million acres -- about 75 percent of the state's total land area. The land needed to implement the first phase of FEJA for community solar is about 1169 acres, or 0.004% of the agricultural land in IL.

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Thanks!

Laurel Passera

laurelp@communitysolaraccess.org