



Emerging Agrivoltaic Regulatory Systems: A Review of Solar Grazing

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State-Level Solar Siting Regulations Impacting Agrivoltaics

New Jersey

- 2021 Dual-Use Solar Pilot Program allows for the construction, installation, and operation of dual-use solar energy projects on unpreserved farmland, while maintaining the affected land in active agricultural or horticultural use.

California

- California Solar Rights Act protects against unreasonable solar siting standards enacted at the local level.
- CA Government Code § 65850.5
- CA Health and Safety Code § 17959.1

Illinois

- IL Public Act 102-1123 (2023): Establishes standardized siting and zoning requirements (counties may not be more stringent) and prohibits bans on solar energy development.

Efforts To Protect Farmland

North Carolina

- Corrituck County board banned solar energy development in 2017 after pushback from residents who found the solar arrays unsightly and feared the damage the arrays could cause in severe weather.

Connecticut

- Passed a law requiring the Department of Energy and Environmental Protection to consider a solar project's impacts to forestland and prime farmland when conducting a cost-benefit analysis.

Oregon

- Oregon Land Conservation and Development Commission approved a rule banning solar development on class 1 and 2 soils, limiting development to 12 acres on class 3 and 4 soils, or 20 acres if the solar array includes agricultural uses.

Agrivoltaic Regulatory Challenges

Zoning

- Agrivoltaics have an agricultural use and function but are subject to the additional permitting and regulatory processes of solar projects.
- Existing zoning policies inconsistently define solar energy systems and their requirements, creating regulatory confusion.
- Local regulations can be unduly burdensome in siting and permitting requirements.

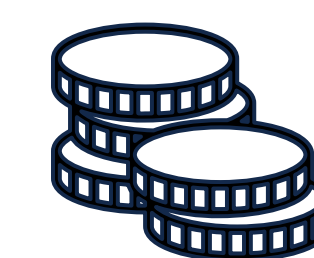


One Solution:

- Illinois Public Act 102-1123 Establishes standardized siting and zoning requirements (counties may not be more stringent) and prohibits bans on solar energy development.

Taxation

- Developing solar on farmland can require rezoning land from agricultural use to another use, which increases tax and other financial burdens on the landowner.
- State laws on taxation of agrivoltaics are uncertain, creating confusion and hesitancy among developers.



One Solution:

- Colorado SB 23-092 amends the definition of a "solar energy facility" to explicitly include agrivoltaics.

Liability

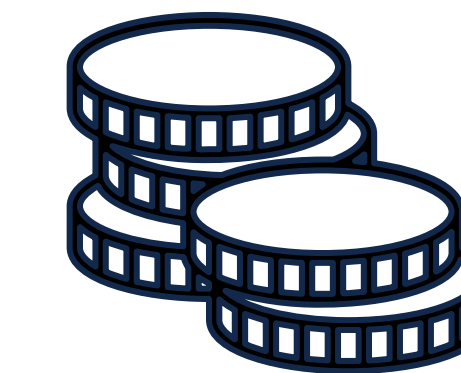
- Solar sites are valuable assets; thus, developers are incentivized to carefully review potential contracts to bring a third party onsite.
- The contract review process, and the liability insurance required, particularly for solar graziers, can become cost prohibitive.



One Solution:

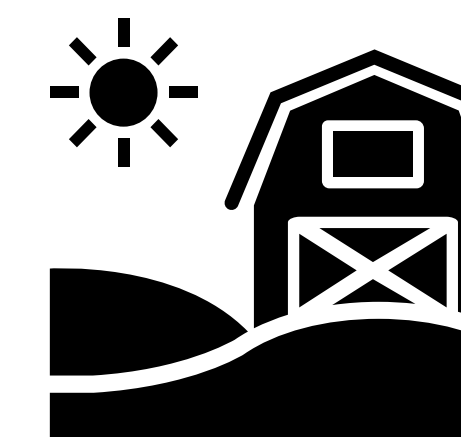
- Dissemination of legal resources and information about regulations to farmers and solar developers to improve agrivoltaics contracts and reduce costs.

Benefits of Solar Grazing



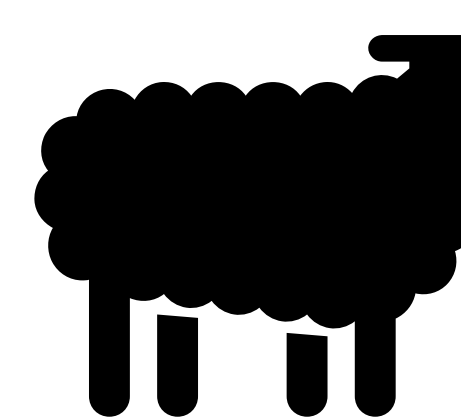
Solar operators reduce maintenance costs; Graziers receive financial diversification.

- Graziers can earn an additional \$250-\$500 per acre of land they solar graze.
- Solar operators can cut O&M costs by 50% or more by using solar grazing for vegetation management.



Graziers receive additional pastureland for their herd to graze.

- Solar grazing took place on 1000 acres of land in NY in 2020, expanding the land available to graziers.
- Using solar grazing on all NY solar sites could provide over 17,000 acres of additional land for grazing.



Solar operators can improve their public image by bringing livestock onto the land.

- The additional benefits of solar grazing may improve community acceptance of solar energy.
- A survey found that 81.8% of respondents would be more likely to support solar development in their community if it featured agrivoltaics.