

Background on Solar Siting and Adverse Agricultural Impacts in Wisconsin

Introduction

Over the past few years, Wisconsin has experienced a significant rise in the establishment of large-scale solar energy generation facilities. These advancements have sparked various public reactions. While some applaud the transition to renewable energy sources, others express concerns regarding the impact and oversight in siting of these facilities on agricultural land.

Large-scale solar projects can offer rural areas numerous benefits, including tax advantages, job opportunities for local workers, new markets for contractors and diversified income for landowners. Farmers and landowners who may be experiencing financial challenges due to fluctuations in agricultural markets could utilize solar project land leases to provide a constant income source. Despite the benefits of renewable energy installations on farmland providing novel income streams to landowners, it can also potentially displace current or prospective farmer-renters. These farmer-renters would be unable to compete with the prices solar developers are offering, potentially impacting the viability of farms and other agribusinesses that remain in the community.

Energy consumption in the U.S. will increase in coming decades and meeting this demand will require conversion of farmland to accommodate solar energy generation facilities. Today, solar expansion is primarily being driven by market forces, with corporations and utilities recognizing the opportunities it presents. From an economic standpoint, the attributes of farmland tend to make it more favorable for solar siting as it is more often flat, dry, cleared, and near existing infrastructure, making it a cost-effective and efficient choice. Both energy utilities and wholesale merchants primarily lease property for solar generation facilities for terms of 20-30 years, rather than purchase land outright or invoke eminent domain or condemnation.

The long-term effects of solar siting on soil quality, food production capacity, and the preservation or restoration of the unique attributes of quality farmland remain somewhat unanswered. Further research is needed to fully understand these impacts and develop strategies that minimize any potential negative consequences while promoting agricultural sustainability and restoration of leased lands after the contractual obligations are met.

To ensure the sustainable deployment of solar energy in Wisconsin, it's crucial to minimize its impact on prime agricultural land while maximizing the benefits to rural communities. This can be achieved through careful planning and proactive measures. Additional requirements to assess a solar development's impact on agriculture could better direct development away from prime agricultural land and focus instead on non-agricultural areas such as brownfields, rooftops and degraded lands, or low-yield, underutilized or marginalized farmland. This approach would help protect valuable agricultural resources while still allowing for the expansion of solar energy.

Background Information

In Wisconsin, the Public Service Commission (PSC) regulates the construction of solar energy generation facilities. Under Wisconsin State Law, no person may construct an electric generation

facility without first obtaining approval from PSC. For the large projects (greater than 100 megawatts), a public utility must obtain a Certificate of Public Convenience and Necessity (CPCN) ([s. 196.491](#)). For smaller projects, a public utility must obtain a Certificate of Authority (CA) ([s. 196.49](#)).

The current [application requirements](#) detail the information necessary for a sufficient application. For projects requiring a CPCN, the PSC is responsible for assessing the facility's design and location to determine if they are in the public interest, consider factors such as alternative energy sources, alternative locations, individual hardships, engineering considerations, economic viability, safety, reliability, and environmental impacts. Additionally, the PSC must evaluate the proposed facility's potential adverse impacts on several factors, including agriculture.

The application requires a description of potential impacts to current agricultural practices in the project area, describe impacts to farming operations, certain agricultural systems, farmland loss, agricultural facilities, and any agricultural incentive program participation within the project area. Furthermore, the application requires a description of the process for potentially restoring land to agricultural use after decommissioning and any induced voltage issues.

In granting a CPCN, the PSC has the authority to impose conditions necessary to ensure compliance with state law requirements. These conditions can address specific concerns and ensure that the proposed facility meets the necessary standards, regulations, or commission requirements.

While solar generation facilities may be developed by public utilities, oftentimes they are constructed and operated by Independent Power Producers (IPPs), regularly referred to as merchant generators. These entities can sell their electricity output at the wholesale level, rather than directly to end-users. The sale of wholesale electricity can take place through participation in markets operated by organizations like the Midwest Independent System Operator (MISO), a long-term power purchase agreements with a utility, or often the entire facility itself is sold directly to a utility.

While all large solar energy generation facilities being required to obtain a CPCN prior to construction, wholesale merchants are exempt from certain review requirements. A wholesale merchant does not consider alternative sources of supply, economic and engineering factors, project's cost to ratepayers, or the facility's necessity to the public's energy needs, but they are not exempt from potential agricultural impact descriptions required in the application.

Although, due to the nature of the lease contracts and statutory conditions under current Wisconsin State Law ([s. 32.035](#)), the review requirements for a CPCN, for both public utilities and wholesale merchants, do not require the submission of a *full* Agricultural Impact Statement. If a solar energy generation facility were to exercise eminent domain or a project impacted 5 or more acres of land taken from a farm, then the Department of Agriculture, Trade and Consumer Protection (DATCP) would be required to prepare a full Agricultural Impact Statement (AIS) as a condition of the application. Conducting an AIS would provide a greater level of analysis on the impact to agriculture than the current application requirements, as well as provide recommendations from DATCP experts to the PSC and applicants to mitigate agricultural impacts of the project.

Wisconsin Farm Bureau Federation Policy

- Energy (4) 41: *We support research and incentives to develop alternate sources of energy, and electrical generation within the state.*
- Energy (4) 44: *We support allowing third party investors to develop alternate energy sources.*
- Energy (4) 46: *We support all alternative energy businesses to fund bonding, that would require the businesses to pay for cleanup of all equipment, waste and restoration of the land.*
- Energy (4) 54: *We support requiring wind and solar projects to make payments to cover municipal services.*
- Energy (5) 33: *We support legislation that will restrict state or federally licensed utility providers from requiring nondisclosure agreements between plaintiffs upon settlement or judgement of lawsuits.*
- Land Use (13) 10: *We support eminent domain laws that do not confiscate private property for private uses or private gain.*
- Land Use (13) 43: *We support municipalities devising land use plans that minimize the loss of productive agricultural land and that achieve a balance between local goals and individual landowners' financial needs. We support ordinances that create exclusive agricultural zones in which farming is designated as the priority use and other users remain in these zones without recourse to abate the practices which are common to farming.*
- Land Use (14) 33: *We reaffirm our belief in the rights of private property ownership, and in the ability of landowners to make wise land use decisions. We support legislation requiring any governmental entity to compensate property owners when its actions reduce property values.*

Discussion Questions

- Are the current processes for review and approval of solar energy generation facilities meeting the needs of the agricultural community?
- Should Wisconsin State Law require an Agricultural Impact Statement (AIS) in order to obtain a CPCN to construct a solar energy generation facility?
 - Are the contents currently required for an AIS sufficient to consider the true impact that a solar energy generation facility could have on the agricultural community?
 - Should the requirement to prepare an AIS be extended to be required for any energy generation project impacting a farming operation that needs a CPCN?
- Should siting of solar energy generation facilities be required to avoid high-quality farmland and soil-types, to the extent practicable?
- Should a public utility be required to address the review requirements the wholesale purchaser was exempted from when purchasing or acquiring a solar energy generation facility?