Decommissioning Large Wind and Solar Utilities: Ohio’s New Law

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Ohio is experiencing significant growth in the development of utility-scale solar generation facilities. As of September 2021, there were 44 solar project applications submitted to the Ohio Power Siting Board (OPSB). Combined, the 44 utility-scale solar projects represent over 75,000 acres of development that would convert the land use from primarily agricultural to utility-scale electric generation. This solar energy development in Ohio comes on the heels of a surge in wind energy development over the last decade.

Important questions have been raised in response to Ohio’s growth of large scale solar and wind development. What will happen to facility infrastructure at the end of its life? Who is responsible for the infrastructure? What land restoration measures will be taken? Can the land return to its prior use? These questions recently made the topic of facility removal or “decommissioning” an issue of concern for the Ohio legislature. In newly enacted Senate Bill 52, the legislature amended existing laws to better address the process for decommissioning utility-scale wind and solar facilities. In this law bulletin, we discuss the importance of planning for the end of a wind or solar facility’s life span and explain the decommissioning provisions of Ohio’s new law.

Why is planning for project end-of-life so important and challenging?

Farmers across Ohio are being approached to lease large tracks of ground for solar development. While solar energy is a renewable emission free energy source, it is not without conflict. A typical solar lease agreements can range from 25 to 50 years. The long-term change in land use will significantly alter the landscape of the farm and will possibly affect future reuse of the farmland following project decommissioning.

Because there have not been any utility scale solar projects decommissioned in Ohio, there is strong debate regarding if the impacted lands can successfully be returned to productive agricultural use. For example, many farmers fear the equipment used to construct and remove the solar project will trigger long term impacts to the farm such as soil compaction and damage to drainage tile. As a result, it is essential that long term planning and best practices for project decommissioning and site
remediation are established to minimize future land use impacts and risk to the farm operations.

**What was the previous regulatory process for decommissioning?**

Created in 1972, the OPSB was established to guide the development of major energy infrastructure projects in Ohio based on public need, economic benefit, environmental implications, and land use considerations. Before constructing a major utility facility in Ohio, including solar facilities with a generation capacity of 50 MW or more and economically significant wind farms, developers must acquire a certificate of environmental compatibility and public need from the OPSB.

Prior to Ohio S.B. 52, OPSB rules for electric generation certificate applications only briefly addressed project decommissioning. The rule in Ohio Administrative Code § 4906-4-06 state that “the applicant shall describe the plan for decommissioning the proposed facility, including a discussion of any financial arrangements designed to assure the required financial resources.”

**If the OPSB had rules, why is S.B. 52 law necessary?**

While the OPSB rules addressed decommissioning and financial arrangements, there was little guidance on what represented a successful decommissioning plan or methods for ensuring adequate funds are available for project removal. As a result, there has been a wide range of decommissioning methods, standards, and cost estimates negotiated into landowner lease agreements.

For example, in some instances developers negotiated agreements committing them to post a performance bond for decommissioning use several years after the project was constructed, when the estimated decommissioning cost exceeded the estimated salvage value of the assets on site. Obviously, this method exposes landowners to additional risk in the early years of the project.

Another potential issue was related to how decommissioning costs were being estimated. In some cases, developers were assuming they would earn revenue from recycling the steel and solar modules during the decommissioning phase of the project. Some developers used the “net” decommissioning cost (decommissioning cost minus salvage revenue) to establish the amount required for the decommissioning performance bond. The challenge with assuming decommissioning revenues from recycling solar modules is that it’s an immature market. It is currently expensive to properly recycle solar modules and the value of the recycled commodities in a solar module is relatively low. As a result, most solar modules today will require a fee to have them recycled or more commonly disposed of in landfills.

**New decommissioning requirements under Ohio S.B. 52**

On June 28, 2021, the 134th Ohio General Assembly passed Senate Bill 52, later signed by Governor Mike DeWine with an effective date of October 11, 2021. The law contains substantial revisions to the siting approval process for utility-scale solar and wind projects in Ohio and contains three core components: 1) restricted area designations and referenda, 2) local involvement in project reviews, and 3) decommissioning plans and bonding requirements. Refer to our law bulletin on “Utility-Scale Wind and Solar Facility Siting: Ohio’s New Law” for a review of the first two components.

We address the new decommissioning provisions in this bulletin, which includes requiring project developers to submit a decommissioning and remediation plan, calculate project remediation costs, and post a performance bond to guarantee remediation of a facility site.
Developing a comprehensive decommissioning and remediation plan

At least 60 days prior to construction of a utility scale solar or wind facility, a developer (the OPSB certificate applicant) must submit a comprehensive decommissioning plan to the OPSB for review and approval. The decommissioning plan must be prepared by an engineer registered with the Ohio State Board of Registration for Professional Engineers and Surveyors. The OPSB may reject the engineer chosen by the applicant and to require the applicant to choose another qualified engineer.

The decommissioning plan must identify all responsible parties, provide a detailed schedule of decommissioning activities, and estimate the full costs of decommissioning the site. All decommissioning activities must be completed within 12 months of when the utility facility ceases operation. Local officials and landowners can access an electronic copy of the decommissioning plan by searching for the case number or project name on the OPSB web site.

Calculating project remediation cost

The law requires the developer (applicant) to estimate the full costs of decommissioning the utility scale solar or wind facility, including the proper disposal of all facility components and restoration of the land on which the facility is located to its pre-construction state. In addition, the law requires the decommissioning estimate to be based exclusively on the cost to remove facility components, properly dispose of materials, and remediate the site. The decommissioning cost estimate cannot incorporate the possibility of salvage value or revenues from recycling materials from the facility. Finally, the law requires the applicant to retain an engineer to recalculate the decommissioning cost estimate every five years.

Performance bond to guarantee successful site remediation

A common concern of farmland owners considering a solar lease agreement is what happens if the developer or project owner is not able to properly complete the required decommissioning and site remediation? The new law ensures that funds will be available for decommissioning and site remediation by requiring the developer (applicant) to post a performance bond prior to starting construction. The bond must name the OPSB as the bond obligee and must equal the estimate of the decommissioning costs established in the decommissioning plan that was submitted to the OPSB. The applicant is required to update the decommissioning costs every five years. If an updated decommissioning cost estimate increases, the performance bond must be increased proportionately. However, a performance bond amount will not decrease, even if future decommissioning cost estimates decrease.

The importance of negotiating termination in a solar lease agreement

The new requirements from S.B 52 and the OPSB regulatory process do a good job of standardizing the decommissioning process and establishing best practices to support successful project remediation. However, when negotiating lease agreements, it is still important for landowners to think long-term about the site management and remediation to minimize land use impacts. Strategies to reduce harm to soil from construction and maintenance of the facility could include selecting vegetative cover options that build organic matter over time and minimizing compaction from construction and decommissioning activities, such as during rain events when the topsoil is wet.

While the decommissioning plans under the new S.B. 52 legislation require the applicant to restore the land on which the facility is located to its pre-
construction state, it does not describe how to establish the pre-condition state of the site. It is important that the landowners take an active role in establishing the “pre-construction state” of the site and properly documenting it in the lease agreement.

Within the solar land lease agreement, landowners can work with developers to establish a “present condition report” containing baseline metrics that describe the pre-construction state. Common metrics could include soil sample data, soil compaction measurements, forage quality, and comparison of yield data. Photographs of the land prior to construction can also be useful. Finally, consider outlining within the lease what happens if the baseline metrics for successful remediation are not achieved.


Where to find the laws

All information about Senate Bill 52 is available on the Ohio Legislature’s website at https://www.legislature.ohio.gov. Search for Senate Bill 52 of the 134th General Assembly.

Chapter 4906 of the Ohio Revised Code contains the new law at https://codes.ohio.gov/ohio-revised-code/chapter-4906, which includes:

- Decommissioning plan for solar and wind generation required, ORC § 4906.21
- Decommissioning plan requirements and estimated costs, ORC § 4906.211
- Decommissioning estimated costs recalculation, ORC § 4906.212
- Decommissioning performance bond required, ORC § 4906.22
- Decommissioning performance bond amount, ORC § 4906.221
- Decommissioning performance bond update, Ohio Revised Code ORC § 4906.222

The pre-existing regulations on decommissioning are in Ohio Administrative Code Rule 4906-4-06, available at https://codes.ohio.gov/ohio-administrative-code.

The Ohio Power Siting Board application provisions are in Ohio Revised Code § 4906.31, available at https://codes.ohio.gov/ohio-revised-code/chapter-4906.

The Ohio Power Siting Board website is https://opsb.ohio.gov/wps/portal/gov/opsb//

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