



Utility-Scale Solar Project Decommissioning and Financial Assurance Guidance

North Carolina [Session Law \(SL\) 2023-58](#) requires the owner of a utility-scale solar project capable of generating two (2) or more megawatts (MW) alternating current (AC) that is directly connected to the electrical grid to:

- Properly decommission the project upon cessation of operations and restore the property.
- Register with the North Carolina Department of Environmental Quality (NCDEQ) and pay a fee.
- Submit a decommissioning plan and establish financial assurance for new and rebuilt/expanded utility-scale solar projects.

Who must comply?

Only utility-scale solar projects capable of generating 2 or more MWAC that are directly connected to the local or regional electrical grid with the ability to deliver power to the electrical grid must comply with the requirements set forth in [SL 2023-58](#).

- The requirements to decommission/restore the site, to register with NCDEQ, and pay a fee apply to existing and new utility-scale solar projects.
- The requirements for submittal of a decommissioning plan and financial assurance apply to utility-scale solar projects:
 - For which applications for certificates of public convenience and necessity (CPCN) are pending or submitted on or after November 1, 2025 and
 - Generating solar energy or are interconnected to a transmission facility on November 1, 2025, that are rebuilt or expanded after November 1, 2025.

These requirements do not apply to utility-scale solar projects smaller than 2 MWAC, or to renewable energy facilities owned or leased by a retail electric customer intended primarily for the customer's own use or to offset the customer's own retail electrical energy consumption at the premises or for net metering.

When is the compliance date?

The requirements become effective **November 1, 2025**.

- The requirements to properly decommission upon cessation of operation and restoration of the site apply as of November 1, 2025 to existing and new utility-scale solar projects.
- The owner of a utility-scale solar project must register with NCDEQ and pay a fee as follows:
 - By November 1, 2025, or at least 90 days prior to the commencement of construction of the project if the project is to be constructed after November 1, 2025; and
 - At least 90 days prior to commencement of a rebuild or expansion of a utility-scale solar project.
- The owner of a utility-scale solar project must submit a decommissioning plan and establish financial assurance as follows:
 - By November 1, 2025, or prior to commencement of construction of the project if the project is constructed after November 1, 2025, and
 - Prior to commencement of a rebuild or expansion of a utility-scale solar project.

What do I need to do now?

If you are the owner of a utility-scale solar project who must comply with the requirements of [SL 2023-58](#), other than familiarizing yourself with the requirements of [SL 2023-58](#) and planning for its November 1, 2025 implementation, there is currently no action you need to take at this time.

NCDEQ must go through a state rulemaking process to codify and further clarify requirements mandated in [SL 2023-58](#). Additional information on the requirements and future rulemaking as well as guidance will be released soon and can be found at this link <https://www.deq.nc.gov/utility-scale-solar-management-program>

In the meantime, you are welcome to contact us if you have any questions. See “[Who do I contact if I have questions?](#)” section of this document.

Terms defined in [SL 2023-58](#):

- ***Cessation of operations*** means a utility-scale solar project has not produced power for a period of 12 months. This 12-month period shall not, however, include a period in which the (i) project fails to produce power due to an event of force majeure or (ii) owner has retained legal control of the project's footprint and has commenced rebuilding the facility.
- ***Expansion*** or ***expanded***, when used in reference to a utility-scale solar project, means adding 2 megawatts AC (MW AC) or more of directly connected solar energy generating capacity to the local or regional electrical grid with the ability to deliver power to the electrical grid, or increasing the ability of the project to deliver power to the electrical grid by thirty-five percent (35%), whichever is larger.
- ***Photovoltaic module*** or ***PV module*** means the smallest non-divisible, environmentally protected assembly of photovoltaic cells or other photovoltaic collector technology and ancillary parts intended to generate electrical power under sunlight, which is part of a utility-scale solar project. (*PV modules are commonly referred to as solar panels and the term can be used interchangeably.*)
- ***Rebuild*** or ***rebuilt*** when used in reference to a utility-scale solar project means a utility-scale solar project for which more than fifty percent (50%) of the original photovoltaic modules have been replaced with a different type of photovoltaic module or other fuel source and the project is deemed to be new for income tax purposes.
- ***Recycle*** means the processing, including disassembling, dismantling, and shredding of PV modules or other equipment from utility-scale solar projects, or their components, to recover a usable product. Recycle does not include any process that results in the incineration of such equipment. PV modules determined to be hazardous shall comply with applicable hazardous waste requirements even when recycled.
- ***Utility-scale solar project*** means a ground-mounted PV, concentrating PV (CPV), or concentrating solar power (CSP or solar thermal) project capable of generating 2 MWAC or more directly connected to the local or regional electrical grid with the ability to deliver power to the electrical grid. The term includes the solar arrays, accessory buildings, battery storage facilities, transmission facilities, and any other infrastructure necessary for the operation of the project. A utility-scale solar project does not include renewable energy facilities owned or leased by a retail electric customer intended primarily for the customer's own use or to offset the customer's own retail electrical energy consumption at the premises or for net metering.

What are the Decommissioning and Site Restoration Requirements?

While more information and/or clarification may be provided through the upcoming state rulemaking, [SL 2023-58](#) states the following.

No later than one year following the [cessation of operations](#), the owner of a utility-scale solar project is responsible for proper decommissioning of the project and restoration of the property (including all associated costs).

The owner shall notify NCDEQ within 30 days of cessation of operations and include a detailed description of the steps to be taken to properly decommission the project and for restoration of the site, and at a minimum, an owner shall take all of the following steps in decommissioning a project:

- Disconnect the solar project from the power grid.
- Remove all equipment from the solar project, and collect and ship equipment for reuse, or recycle all of the components thereof practicably capable of being recycled, including:
 - the PV modules;
 - the entire solar module racking system;
 - the aboveground electrical interconnection and distribution cables that are no longer deemed necessary;
 - any subsurface cable no longer deemed necessary;
 - any metal fencing;
 - the electrical and electronic devices, including transformers and inverters; and
 - the energy storage system batteries.
- Non-hazardous components that will not be reused, and are incapable of being recycled, must be properly disposed of in an industrial landfill or a municipal solid waste landfill. Prior to any landfill disposal ensure there are no landfill restrictions/prohibitions for PV modules.
- Components (including PV modules) that meet the definition of hazardous waste that will not be reused, as-is for their intended purpose, shall comply with hazardous waste requirements for recycling and disposal as applicable.
- Restore the property either:
 - As nearly as practicable to its condition before the utility-scale solar project was sited or
 - To an alternative condition agreed upon in a written contract or lease agreement between the landowner and the project owner.
 - A copy of the agreement signed by both parties shall be provided to NCDEQ prior to decommissioning.
 - The condition of the property shall otherwise comply with any applicable statutory requirements, rules adopted thereunder, and requirements in local ordinance.
 - Land that was cleared of trees for the solar project may be revegetated or reforested with seedlings.

What are the Registration Requirements?

While more information and/or clarification may be provided through the upcoming state rulemaking, [SL 2023-58](#) states the following as far as registration.

- Each owner of a utility-scale solar project shall register with NCDEQ and update such registration every five years.

- At the time of registration, or periodic required update, the owner shall provide all of the following information:
 - Identification of the owner and any other legal entity that will be responsible for:
 - decommissioning the project and
 - establishment of financial assurance, if applicable.
 - Summary of project equipment that will be subject to decommissioning requirements, including the:
 - location, size, number, and type of PV modules,
 - identification of any per- and poly-fluoroalkyl substances (PFAS) associated with the project, and
 - a determination as to whether the PV modules are likely to be characterized as hazardous waste upon decommissioning. The hazardous waste determination must be made in compliance with rules adopted by the NCDEQ or the NC Environmental Management Commission.
 - Summary of project timeline, including actual or anticipated initiation and completion of construction, initiation of operations, and expected service life of the project.
 - Estimates of costs to decommission the project and restore the property.
 - Proposed financial assurance mechanism, if applicable.
 - Copies of any decommissioning plan executed, or documentation of financial assurance established, pursuant to local government ordinance or agreement with a landowner, prior to registration under this subsection.
 - Any other information NCDEQ may require.

How much is the fee?

While more information and/or clarification will be provided through the upcoming state rulemaking, [SL 2023-58](#) states the following as far as fee collection.

- NCDEQ shall collect fees from the owner of a utility-scale solar project subject to the requirements of [SL 2023-58](#) at the time of registration and periodic update.
- The collected fees shall be applied to NCDEQ's cost of administering the program.

What are the Decommissioning Plan Requirements?

While more information and/or clarification may be provided through the upcoming state rulemaking, [SL 2023-58](#) states the following as far as decommissioning plans.

- The owner of a utility-scale solar project [required to submit a decommissioning plan](#) must submit the plan to NCDEQ for approval.
- The plan must be prepared, signed, and sealed by a professional engineer licensed in NC.
- The plan must contain all of the following information:
 - The name, address, and contact information for the owner of the project, and the name, address, and contact information for the landowner of the property on which the project is sited, if different than the owner.
 - A narrative description of how the decommissioning will be conducted, including the decommissioning sequencing; the disposition of materials to be used upon decommissioning, such as landfilling, reuse, or recycling of project equipment, which shall specifically delineate methods to be used for solid and hazardous waste; and a schedule for completion of the decommissioning activities.

- Information on equipment proposed to be salvaged, including estimated salvage value of the equipment for the purpose of determining financial assurance.
- Information on steps to be taken to [restore the property](#) in compliance with SL 2023-58 requirements.
- A cost estimate for [decommissioning the project and restoration of the property](#) in compliance with SL 2023-58 requirements.
- The proposed mechanism to satisfy the [financial assurance](#) requirements of SL 2023-58, including information on which legal entity will establish the mechanism, when it will be established, and how NCDEQ will access the funds from the mechanism if needed.

What are the Financial Assurance Requirements?

While more information and/or clarification will be provided through the upcoming state rulemaking, [SL 2023-58](#) states the following as far as financial assurance.

- The owner of a utility-scale solar project [required to establish financial assurance](#) is required to do so in an amount acceptable to NCDEQ that will ensure that sufficient funds are available for [decommissioning of the project and restoration of the property](#) in compliance SL 2023-58 requirements, even if the owner becomes insolvent or ceases to reside in, be incorporated, do business, or maintain assets in the State.
- To establish sufficient availability of funds, the owner of a utility-scale solar project may use insurance, financial tests, third-party guarantees by persons who can pass the financial test, guarantees by corporate parents who can pass the financial test, irrevocable letters of credit, trusts, surety bonds, or any other financial device, or any combination of the foregoing, shown to provide protection equivalent to the financial protection that would be provided by insurance if insurance were the only mechanism used.
- Financial assurance shall be established by the owner of a utility-scale solar project and maintained until such time as the project is decommissioned and restoration of the property has been completed in compliance with this section.
- Documentation of financial assurance established shall be submitted to NCDEQ at the time of registration and at the time of required update, every five years.

What happens if the County/Local Municipality or my contract with the landowner already has requirements for decommissioning and financial assurance?

[SL 2023-58](#) provides that the landowner/local authority are not preempted for adoption of more stringent requirements. Nothing in SL 2023-58 shall be construed as limiting the authority of any:

- Local government establishes and implements requirements that are more stringent than those set forth in SL 2023-58 for decommissioning and financial assurance for utility-scale solar projects located within its jurisdiction.
- Landowner to enter into an agreement with an owner to lease property on which a utility-scale solar project will be sited that expressly establishes requirements that are more stringent than those set forth in SL 2023-58 for decommissioning and financial assurance for utility-scale solar projects to be located on the landowner's property.

Additionally, [SL 2023-58](#) provides information on the applicability of existing contracts:

- Nothing in Section 2(a) of [SL 2023-58](#) shall be construed to abrogate or impair a contractual provision executed on or before the effective date of this act that is binding on an owner, or their successors in interests, that expressly requires decommissioning and/or restoration activities in direct conflict with the requirements of those sections, such as a contractual provision granting a landowner the right to retain project equipment after cessation of operations. In such case, compliance with the provisions of Section

2(a) of [SL 2023-58](#) shall be required to the maximum extent that decommissioning and/or restoration activities are not in direct conflict with the terms of such a contractual provision.

Where can I find more information about the management of waste PV modules/solar panels?

Specific requirements apply to waste PV modules in addition to/beyond the scope of [SL 2023-58](#). Below is a link to North Carolina hazardous waste guidance documents for PV modules.

<https://www.deq.nc.gov/about/divisions/waste-management/hazardous-waste-section/technical-assistance-and-guidance-documents#SolarPanels-3173>

Who do I contact if I have questions?

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