

# PUBLICATION

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## North Carolina Department of Environmental Quality Unveils New Solar Management Regulations

Authors: Elizabeth Haskins

October 15, 2024

**North Carolina enacted legislation in 2023 that imposes new state-level decommissioning and financial assurance requirements on owners of utility-scale solar projects. S.L. 2023-58. All utility-scale solar project owners will be required to register with the North Carolina Department of Environmental Quality (NCDEQ) by November 1, 2025, and must comply with the law's new decommissioning and restoration requirements by and after that date. As part of the statute's registration requirements, project owners will be required to identify any per- and poly-fluoroalkyl substances (PFAS) associated with the project to NCDEQ.**

These new requirements will be administered and enforced by NCDEQ's Division of Waste Management through its new Utility-Scale Solar Management Program. NCDEQ recently proposed implementing regulations as required by S.L. 2023-58, which include: (i) criteria for the amount of required financial assurance; (ii) requirements for decommissioning plans; and (iii) registration fee structure and amounts. A 60-day [public comment period](#) for these new rules opens October 15, 2024, and will close on December 16, 2024. A [public hearing](#) will be held on November 7, 2024. NCDEQ plans to adopt the rules by December 31, 2024, with an effective date of March 1, 2025. Permanent rules must be adopted by August 1, 2025.

### Who Does This Affect?

All existing and new utility-scale solar projects capable of generating 2 MW AC or more that are directly connected to the local or regional electrical grid with the ability to deliver power to the grid must comply with the law's registration and decommissioning/restoration requirements. However, the requirements for submittal of a decommissioning plan to NCDEQ and maintenance of financial assurance throughout the facility's operation only apply to utility-scale solar projects that either: (i) have certificate of public convenience and necessity (CPCN) applications that are pending or submitted after November 1, 2025; or (ii) are generating solar energy or interconnected to a transmission facility on November 1, 2025, and are rebuilt or expanded after that date.

"Utility-scale solar project" includes solar arrays, accessory buildings, battery storage facilities, transmission facilities, and other infrastructure necessary for the operation of the project. "Rebuilt" projects include those projects where more than 50 percent of the original photovoltaic (PV) modules have been replaced with a different type of PV module or other fuel source, and the project is deemed to be new for income tax purposes. "Expanded" projects include those projects that add 2 MW AC or more of directly connected solar energy generating capacity to the grid with the ability to deliver power to the grid, or that increase the ability of the project to deliver power to the grid by 35 percent, whichever is larger.

Solar facilities that are owned or leased by a retail customer intended primarily for the customer's use or to offset the customer's consumption at the premises or for net metering are exempt from the law's requirements.

### Registration with NCDEQ

All existing and new utility-scale solar projects in North Carolina must register with NCDEQ by November 1, 2025, or at least 90 days before beginning construction of a new, rebuilt, or expanded utility-scale solar project.

Registration must be updated with NCDEQ every five years. The following information must be included with a project's registration:

- The owner and any other legal entity responsible for decommissioning and any financial assurance;
- Equipment that will be subject to decommissioning, including:
  - the location, size, number, and type of PV modules;
  - identification of any PFAS associated with the project; and
  - whether the PV modules are likely to be characterized as hazardous waste upon decommissioning;
- Summary project timeline, including actual or anticipated construction, operation, and service life dates;
- Cost estimate for decommissioning the project and restoring the project site;
- Proposal for satisfying any applicable financial assurance requirements under the new law; and
- Copies of previously executed decommissioning plans and/or financial assurance established pursuant to local government ordinance or landowner agreement.

Pursuant to NCDEQ's proposed regulations, the decommissioning cost estimate must be based on costs for a third party to conduct the decommissioning at the time of submittal of the estimate (including with every five-year update), itemized to show costs for personnel time and expenses, transportation of materials, and recycling or disposal fees. The cost estimate must assume that project decommissioning will manage PV modules in a manner that prevents breakage, with no disassembly, deconstruction, or removal of the PV modules from their frames until they arrive at the recycling or disposal facility.

NCDEQ's Utility-Scale Solar Management Program will be funded in part by fees collected from project owners at the time of each registration and five-year update. Pursuant to NCDEQ's proposed regulations, for all utility-scale solar projects operating in the state as of June 26, 2023, the first registration fee will be \$175 per MW AC of nameplate capacity, and all subsequent registration fees will be \$25 per MW AC of nameplate capacity. For new utility-scale solar projects capable of generating 20 MW AC or less, the first registration fee will be \$500 per MW AC of nameplate capacity, and all subsequent registration fees will be \$50 per MW AC of nameplate capacity. For new utility-scale solar projects capable of generating more than 20 MW AC, the first registration fee will be the lesser of \$300 per MW AC of nameplate capacity or \$50,000, and all subsequent registration fees will be the lesser of \$25 per MW AC of nameplate capacity or \$25,000. NCDEQ also proposes to charge a late registration fee of \$75 per month and to publish adjusted fee amounts every five years in accordance with the Consumer Price Index.

### **Decommissioning and Restoration Requirements**

All existing and new utility-scale solar projects in North Carolina must also comply with the law's decommissioning and restoration requirements beginning November 1, 2025. Within one year after the cessation of operations of a project, the project owner must have properly decommissioned the project and restored the project site. "Cessation of operations" is defined as a failure to produce power for 12 months, except in cases in which a project fails to produce power due to a *force majeure* event or the owner of the project has legal control of the project's footprint and has begun rebuilding the facility.

A project owner must notify NCDEQ within 30 days of cessation of operations and describe the steps that will be taken to decommission and restore the site, which must include, at minimum:

- Disconnecting the solar project from the power grid;
- Removing all equipment from the solar project – including PV modules, racking, aboveground and subsurface cables and interconnections that are no longer necessary, metal fencing, electrical and

electronic devices, and batteries – and (i) shipping equipment to another project for reuse or recycling components that may be recycled; (ii) properly disposing of non-hazardous waste components that cannot be reused or recycled in an industrial or municipal solid waste landfill; and (iii) properly disposing of hazardous waste components pursuant to hazardous waste recycling and disposal requirements; and

- Restoring the property to either: (i) as near as practicable its condition before the solar project was sited (although land cleared of trees may be revegetated or reforested with seedlings); or (ii) an alternative condition agreed upon in a written contract or lease with the landowner (the agreement must be provided to NCDEQ in advance), and in either case in compliance with statutory requirements, rules, and local ordinances.

North Carolina is in the process of updating its [hazardous waste guidance documents](#) for PV modules. S.L. 2023-58 defines "recycling" as "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." It expressly excludes "any process that results in the incineration of such equipment," and it requires that PV modules determined to be hazardous waste comply with applicable hazardous waste requirements even when recycled.

### **Decommissioning Plan and Financial Assurance Requirements**

Any utility-scale solar project in North Carolina that either: (i) has a certificate of public convenience and necessity (CPCN) application that is pending or submitted after November 1, 2025; or (ii) is generating solar energy or interconnected to a transmission facility on November 1, 2025, and is rebuilt or expanded after that date must submit a decommissioning plan and must establish and maintain financial assurance in an amount approved by NCDEQ.

The decommissioning plan must be submitted to NCDEQ for approval by November 1, 2025, or prior to the commencement of construction after that date. The plan must have been prepared and signed by an engineer licensed in North Carolina, and it must include:

- Project owner and landowner contact information;
- A narrative description of how decommissioning will be conducted, including sequencing, disposition of materials and delineation of solid and hazardous waste disposal methods, and a schedule for completion;
- Equipment that will be salvaged, including estimated salvage value of the equipment (if requesting to reduce the amount of financial assurance based on salvage value);
- Steps that will be taken to comply with the law's new restoration requirements;
- Cost estimate for decommissioning the project and restoring the project site; and
- A proposal for satisfying the law's new financial assurance requirements.

The project's owner must also establish financial assurance by November 1, 2025, or prior to the commencement of construction after that date. This financial assurance must be maintained until the project is decommissioned and the project site is restored. Documentation of this financial assurance must be submitted with the project's NCDEQ registration or any five-year registration update.

Pursuant to NCDEQ's proposed regulations, a project owner may request to reduce the amount of financial assurance based on the salvage value of the project equipment. The salvage value estimate must be based on values for a third party to salvage the equipment at the time of submittal of the estimate.

In addition, in accordance with NCDEQ's proposed regulations, the amount of financial assurance must be increased if changes to the decommissioning plan or project conditions increase the decommissioning cost

estimate at any time during the active life of the project, and the project owner may request a decrease in the amount of financial assurance if similar changes decrease the cost estimate.

To establish sufficient funds in order to meet the financial assurance requirements of the new law, the solar project's owner 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.

N.C.G.S. § 130A-309.240(d)(1). More details regarding all of these financial assurance mechanisms are provided in NCDEQ's proposed implementing regulations. In addition, financial assurance that is required by a local government but otherwise meets the requirements of the statute may be submitted for NCDEQ approval.

Any change in project ownership will require the establishment of financial assurance within 30 days after the change in ownership pursuant to NCDEQ's proposed regulations. The prior project owner must maintain its financial assurance mechanism until released in writing by NCDEQ.

### **Local/Landowner Decommissioning and Financial Assurance Requirements**

Pre-existing contractual provisions executed on or before June 26, 2023, that require decommissioning and/or restoration activities that directly conflict with those set forth in the statute are not abrogated or impaired, including if a landowner has the right to retain project equipment after cessation of operations.

In addition, local governments and landowners are not preempted from establishing requirements that are more stringent than the decommissioning and financial assurance requirements under the new law.

If you have questions regarding PFAS, hazardous waste disposal, or the utility-scale solar project registration and decommissioning requirements in North Carolina, please reach out to [Elizabeth Haskins](#), [Noelle E. Wooten](#), or any member of Baker Donelson's [Environmental Group](#).