

**Report to the North Carolina General Assembly
Environmental Review Commission and the Joint
Legislative Commission on Energy Policy**



***Fourth Quarterly Report on the
Utility-Scale Solar
Management Program***

September 1, 2024

**Division of Waste Management, Division of
Environmental Assistance and Customer
Service**

**NORTH CAROLINA DEPARTMENT
OF ENVIRONMENTAL QUALITY**

Pursuant to SL 2023-58, Section 2.(d)

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A. Executive Summary

In accordance with Session Law 2023-58, s. 2.(d), Beginning December 1, 2023, through December 1, 2025, the Department of Environmental Quality (DEQ) is submitting quarterly reports to the Environmental Review Commission and the Joint Legislative Commission on Energy Policy on implementation of the requirements of Section 2 of S.L. 2023-58, including program development and the status of the rulemaking. These requirements are fulfilled in the following report, which is the **fourth** of nine quarterly reports.

This report includes:

- An update on outreach efforts with stakeholders.
- An update on the development of draft rules.
- An update on the development of the registration form, process, and database.
- Recommendations to the General Assembly.

B. Background

North Carolina [S.L. 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 DEQ and pay a fee.
- Submit a decommissioning plan and establish financial assurance for new and rebuilt/expanded utility-scale solar projects.

S.L. 2023-58, which included the addition of Article 9 Part 2J of Chapter 130A of the General Statutes (G.S. 130A-309.240 through 130A-309.243) and G.S. 130A-309.06(c)(21), made DEQ the lead agency in the statewide administration and enforcement of utility-scale solar project registration, decommissioning, and financial assurance program for new projects, and for enforcing the new state-level statutory registration and decommissioning requirements for existing utility-scale solar projects.

Prior efforts and research that led up to the legislation in S.L. 2023-58 and the information presented in this report can be reviewed in the following prior legislation and subsequent reports/plans submitted to the General Assembly as required in the respective legislation:

[S.L. 2019-132 \(H329\)](#)

- The EMC and DEQ evaluated the end-of-life management of renewable energy equipment and summarized the evaluation in the January 1, 2021 "[Final Report on the Activities Conducted to Establish a Regulatory Program for the Management and Decommissioning of Renewable Energy Equipment.](#)"

[S.L. 2021-165 \(H951\)](#)

- DEQ evaluated options for the decommissioning of utility-scale solar projects and financial assurance and summarized the evaluation in the March 1, 2022 "[Plan and Recommendations for Financial Resources for Decommissioning of Utility-Scale Solar Panel Projects.](#)"

Recent legislation related to photovoltaic modules includes the following:

[S.L. 2023 -137 \(H600\)](#)

- Section 19.(a) of this Session Law revises G.S. 130A-309.10 to prohibit the disposal of photovoltaic modules, or components thereof, in a sanitary landfill for the disposal of construction and demolition debris waste that is unlined or in any other landfill that is unlined in North Carolina. The statute revision is effective December 1, 2026, per Section 19.(c) of the Session Law.

C. Program Activities and Outreach

DEQ created the Utility-Scale Solar Management Program under the Division of Waste Management to administer and enforce the requirements of S.L. 2023-58 and subsequent rulemaking. The Utility-Scale Solar Management Program webpage can be accessed at this link:

<https://www.deq.nc.gov/about/divisions/waste-management/utility-scale-solar-management-program>

This webpage will continue to be updated throughout program implementation as changes occur. The webpage currently has the following information:

- an overview of the program and its purpose and applicability,
- a link to S.L. 2023-58,
- program and rulemaking status,
- copies of quarterly reports submitted to the General Assembly,
- answers to anticipated questions,
- program contact information, and
- links to fact sheets and additional guidance.

To ensure collaboration between agencies and a smooth program start-up in 2025, DEQ has been reaching out to stakeholders regarding this program. Activities and outreach from August 2023 through June 2024 are summarized in these [quarterly reports posted on the Utility Scale Solar Management Program website](#).

Below is a list of activities and outreach conducted between April and June 2024:

- Continued discussions and provided preliminary draft rule text for input to targeted groups of stakeholders including solar developers and engineers, investor-owned utilities, and a local government with existing PV decommissioning and financial assurance requirements.
- The NC Utilities Commission provided an annual list of utility-scale solar projects currently operating within NC to DEQ by July 1, 2024, as required by G.S. 130A-309.240(f), with corrections submitted to DEQ on August 12, 2024. DEQ is reviewing this list as a part of drafting the regulatory impact analysis required to be completed for rulemaking.
- DEQ included information regarding implementation of the requirements of G.S. 130A-309.240 in the 2024 Consolidated Waste Report (required under G.S. 130A-309.06(c)) submitted to the General Assembly, as required by G.S. 130A-309.240(i).

In support of the requirement in G.S. 130A-309.241 for the Department of Commerce, in collaboration with DEQ, to identify existing incentives and grant programs that may be used to encourage research and development on recycling and reuse of photovoltaic (PV) modules and to facilitate growth of the State's PV module recycling and reuse industry, DEQ continues to review different funding opportunities. At this time, none have been identified that are directly applicable to the PV module recycling industry.

D. Rulemaking

DEQ staff in the Division of Waste Management are drafting proposed rule language and an associated fiscal note and working with stakeholders to attempt to address initial concerns, where possible, prior to publishing the proposed rules for public comment. The rules will need to be effective early enough to give project owners time to register, pay the fee, and submit any required decommissioning and financial assurance documentation prior to the Session Law deadline of November 2025.

Proposed Rulemaking Schedule (subject to change):

Date	Action
September 2024	Beginning of 60-day public comment period for rules
November 2024	End of comment period for rules
December 2024	Goal for DEQ to adopt rules
January 2025	Rules Review Commission Meeting for approval of rules
February 2025	Goal for Effective Date of Rules
August 2025	Session Law Deadline for DEQ rule adoption

Proposed Rule Structure/Outline (subject to change):

15A NCAC 01V

- .0101 Applicability and Definitions
- .0102 Registration and Fee Requirements
- .0103 Registration Fee Amount
- .0104 Decommissioning Cost Estimate Requirements
- .0105 General Requirements for Financial Assurance
- .0106 Allowable Mechanisms for Financial Assurance
- .0107 Required Language for Financial Assurance Mechanisms

E. Registration and Fee

DEQ is continuing to work with DIT to develop an all-in-one electronic/online platform solution for the registration form and review process, the database for site inventory, invoicing and payment of the registration fee, and the five-year registration updates. The platform should allow project owners to create an account online where they can do the following:

- register all of their utility-scale solar projects,
- upload copies of decommissioning plans and financial assurance mechanism documents,
- view and pay invoices for the registration fee, and
- update the project information every five years to complete the registration update requirements.

Once the platform is nearing completion, DEQ expects to demonstrate the platform for stakeholders to solicit feedback on the design, prior to making the platform live for use by project owners in February 2025.

F. Recommendations

DEQ requests the North Carolina General Assembly's consideration on the following recommendations.

- ***Provide resources for DEQ to administer the program through general appropriations.***

Currently, the only funding associated with the program is available after the collection of the fees associated with registration, which is effective November 1, 2025. The mandated fees are recurring only every five years, and the amount of the fee still must be determined through rulemaking including a public comment period. To be able to cover the FTEs required to operate the program, the fees would be substantial and would likely receive negative public comments. Work performed to start up the program and to comply with mandated requirements of S.L. 2023-58 is currently done by existing employees in addition to their regularly assigned workload. In the short term, priorities have been shifted and triaged to be able to meet the mandates of S.L. 2023-58; however, this is not a long-term solution nor is it sustainable. The utility-scale solar project decommissioning and financial assurance program needs to be adequately funded to be successful.

- ***Require counties to review and repeal/amend duplicative or less stringent requirements that apply to utility-scale solar projects after November 1, 2025.***

In 2021, there were 60 North Carolina counties that already had financial assurance/decommissioning requirements in county ordinance (Plan and Recommendations for Financial Resources for Decommissioning of Utility-Scale Solar Panel Projects, March 1, 2022).

S.L. 2023-58 allows for decommissioning/financial assurance requirements more stringent than the statewide minimum standards to be retained by counties. For existing projects (constructed prior to November 1, 2025), counties may continue to administer any financial assurance requirements included in county ordinances. For projects that are constructed after that deadline, counties may continue to administer any decommissioning or financial assurance requirements that are more stringent than the new state requirements included in S.L. 2023-58. However, S.L. 2023-58 is not clear on what to do if/when counties maintain decommissioning/financial assurance requirements in their county ordinance that are duplicative with state requirements and will apply to utility-scale solar facilities that are constructed after November 1, 2025.

To ensure there are no duplicative requirements and to reduce confusion for the regulated entities and the entities administering the program, the General Assembly could mandate that counties review ordinances related to utility-scale solar projects and repeal and/or amend county ordinance to ensure any decommissioning/financial assurance requirements that still apply to utility-scale solar projects constructed on or after November 1, 2025 are not duplicative or less stringent than the requirements established by the statewide program.

- ***Provide resources to encourage economic development of recycling or reuse of solar panels.***

North Carolina's recycling industry currently employs over 15,000 people in more than 500 businesses. The strength of the industry provides the state with a unique opportunity to take advantage of the burgeoning market for solar panel recycling. In fact, North Carolina is already home to the first dedicated solar panel recycling line on the east coast. Further resources may be

needed, however, to keep North Carolina businesses in a leading position. While S.L. 2023-58 mandated that the Department of Commerce identify existing incentives and grant programs that may be used to encourage research and development on recycling and reuse of PV modules and to facilitate growth of the State's PV module recycling and reuse industry, the North Carolina General Assembly did not allocate any financial resources to encourage the economic development of this industry.