

Quarterly Report to the North Carolina General Assembly



Utility-Scale Solar Project Decommissioning

December 1, 2023

N.C. Department of Environmental Quality

<https://deq.nc.gov/>

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Table of Contents

A. Executive Summary	1
B. Background	2
C. Outreach	3
D. Rulemaking	4
E. Registration and Fee	5
F. Recommendations.....	6

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 first of nine quarterly reports.

This report includes:

- An update on outreach efforts with local governments organizations, the Department of Commerce, and the North Carolina Utilities Commission (NCUC) and Public Staff – North Carolina Utilities Commission (Public Staff).
- 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.](#)"

C. Outreach

To ensure collaboration between agencies and a smooth program start-up in 2025, DEQ has initiated conversations with or given presentations to the following stakeholders regarding this program between August and October 2023:

- Met with the NCUC and the Public Staff regarding any preliminary data they may have regarding utility-scale solar projects operating in NC as of the effective date of the session law.
- Met with the Department of Commerce staff regarding existing grant opportunities for recycling of solar panels.
- Provided technical assistance to a recycler in NC on their transition to accepting end-of-life solar panels for recycling, including those determined to be hazardous waste.
- Met with the Department of Information Technology (DIT) to begin developing the online registration form, the fee invoicing and payment system, the database for site inventory and compliance, and the routing and review process for decommissioning plans and financial assurance mechanisms.
- Reached out to the NC Association of County Commissioners and the League of Municipalities regarding program awareness and any concerns about existing ordinances.
- Presented on the program at a US EPA Region 4 State Directors Meeting for solid waste topics.
- Presented on the program to the Solid Waste Enforcement Officers Association for additional local government outreach.

DEQ developed and published a new webpage for the program which can be accessed at this link:

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

The webpage currently contains the following information, and will be updated throughout program implementation as changes occur:

- an overview of the program and its purpose and applicability;
- a link to S.L. 2023-58;
- program and rulemaking status;
- answers to anticipated questions;
- program contact information; and
- links to fact sheets and additional guidance.

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
December 2023	Draft rules ready for stakeholder feedback
May 2024	Beginning of 60-day public comment period for rules
July 2024	End of comment period for rules
October 2024	Goal for DEQ to adopt rules
December 2024	RRC Meeting for approval of rules
January 2025	Goal for Effective Date of Rules
August 2025	Session Law Deadline for DEQ rule adoption

Proposed Rule Structure/Outline (subject to change):

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

E. Registration and Fee

DEQ is working 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.

- ***Provide local governments with the option to enter into a memorandum of agreement with DEQ to administer/enforce the requirements of S.L. 2023-58 (and any subsequent state rulemaking) through county ordinance for utility scale solar facilities in their local jurisdiction.***

An earlier edition (Senate Bill (SB) 669) of the provisions that later became S.L. 2023-58 provided draft wording pertaining to a delegation of authority for local government to administer the requirements of the program in lieu of the state. Specifically, Senate Bill 669, Section 1(a) proposed to amend 130A-309.240(i) as follows:

“Local Government Delegation to Administer. – The Department may delegate responsibility, or partial responsibility, for the implementation and enforcement of the requirements of this section to a unit of local government upon request of the local government. Any unit of local government may request that responsibility for the implementation and enforcement of the requirements of this section be delegated to the unit of local government, and the Department and the local government may subsequently execute a memorandum of understanding to set forth delegated responsibilities. To this end, units of local government may adopt ordinances necessary to establish and enforce requirements that are at least as stringent as those set forth in this section.”

While S.L. 2023-58 allows for decommissioning/financial assurance requirements more stringent than the statewide minimum standards to be retained by counties, it did not address, nor prohibit, local governmental delegation to administer the program in lieu of the state. Clearly providing an allowance similar to the draft wording in SB 669 as noted above would provide clarification and certainty.

- ***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.

If local governments were delegated authority to administer the program (as recommended in the second bullet point), they would still need to establish/amend county requirements that are at least as stringent as those of the state program.

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

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 photovoltaic (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.