

50

STATES OF SOLAR DECOMMISSIONING

2023 Snapshot



NC CLEAN ENERGY
TECHNOLOGY CENTER

DSIRE *insight*

January 2024

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The NC Clean Energy Technology Center is a UNC System-chartered Public Service Center administered by the College of Engineering at North Carolina State University. Its mission is to advance a sustainable energy economy by educating, demonstrating and providing support for clean energy technologies, practices, and policies. The Center provides service to the businesses and citizens of North Carolina and beyond relating to the development and adoption of clean energy technologies. Through its programs and activities, the Center envisions and seeks to promote the development and use of clean energy in ways that stimulate a sustainable economy while reducing dependence on foreign sources of energy and mitigating the environmental impacts of fossil fuel use.

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PREFERRED CITATION

North Carolina Clean Energy Technology Center, *The 50 States of Solar Decommissioning: 2023 Snapshot*, January 2024.

COVER DESIGN CREDIT

Cover design by Amira Ferjani and Justin Lindemann

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OTHER PUBLICATIONS

The NC Clean Energy Technology Center also publishes the *50 States of Solar*, the *50 States of Grid Modernization*, the *50 States of Electric Vehicles*, and the *50 States of Power Decarbonization* on a quarterly basis. Executive summaries of these reports may be found [here](#).

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Introduction

Solar decommissioning is the process of deconstructing and removing solar energy facilities, ancillary equipment, and related structures (i.e. solar panels, racking systems, posts, electric wiring, fencing, inverters and transformers, access roads, etc.) from a site and restoring it to its previous state so that the land may be repurposed for future use. Decommissioning takes place after a solar project has reached the end of its lifespan – on average after 25 to 30 years of operating – and may require the project owner/developer to provide financial assurance for the estimated costs of removal and site restoration. The purpose of financial assurance is to provide the landowner of a solar facility site, among other stakeholders, with proof that a decommissioning plan can fully be carried out in line with projected costs.

According to the National Renewable Energy Laboratory, the amount of potential solar panel waste could total to around 3,000 football fields by 2030.¹ Although the relative size of the solar waste that will accumulate by 2030, 2040, and 2050 is still predicted to be smaller than other waste streams,² the size and number of solar projects planned for the coming years still signal the importance for solar project owners to properly decommission solar facilities and assure impacted landowners that site conditions will return to what they once were. As the pace of installations increase, more projects will reach the end of their useful lives at similar times, creating the necessity (and opportunity) for states and localities to have policies in place to handle decommissioning in a consistent and comprehensive manner. In 2023 alone, an estimated 33 GW of solar capacity is expected to have been added, according to the Solar Energy Industries Association (SEIA) and Wood Mackenzie.³

This report provides readers with information on the types of policy models states are employing to guide solar decommissioning; provides updates on legislation that has passed or is still being considered as of the end of 2023 related to solar decommissioning; gives a brief analysis of current state by state policy – specifically those offering state-based rules and statutes; and ends with a summary of notable trends and concluding thoughts.

¹ Hurdle, J. (2023). As Millions of Solar Panels Age Out, Recyclers Hope to Cash In. Retrieved from <https://e360.yale.edu/features/solar-energy-panels-recycling#:~:text=The%20area%20covered%20by%20solar,regulatory%20analyst%20at%20the%20lab>

² Mirlitz, H., Hieslmair, H., Ovatt, S., Curtis, T. L., & Barnes, T. M. (2023). Retrieved from <https://www.nature.com/articles/s41567-023-02230-0>

³ SEIA & Wood Mackenzie. (2023). U.S. Solar Market Insight. Retrieved from <https://www.seia.org/us-solar-market-insight>

Types of Statewide Policy Models

From state to state, there are a variety of decommissioning policy models that give certain jurisdictional powers to local governments and state agencies. The following model types are generally seen when examining the national solar decommissioning policy landscape:

- **Local Option Only:** States in which there is no statewide policy, giving local governments the sole jurisdiction to implement solar decommissioning rules.
- **Local Option w/State Model Template:** States in which there is no statewide policy, giving local governments the sole jurisdiction to implement solar decommissioning rules, but are provided with a model template for requirements by the state government that localities can use.
- **Statewide/Local Hybrid:** States in which there is a statewide decommissioning statute or rule that may give local governments the option to impose stricter requirements.
- **Statewide:** States in which statewide decommissioning statutes or rules are required.
- **Statewide Optional:** States in which there are decommissioning statutes or rules that can be administered in lieu of local regulations.

2023 SOLAR DECOMMISSIONING LEGISLATIVE UPDATES

As of the end of 2023, more than a dozen state legislatures have or are still considering bills related to administering decommissioning rules for solar facilities or mandating financial assurance be part of existing rules. Some proposed legislation has been successfully enacted, while other bills have either been carried over to 2024 or have failed to pass, including the following:

- **Arizona:** In June 2023, H.B. 2618⁴ was vetoed by the Governor, which would have required decommissioning plans – including financial assurance – for solar projects in the state.
- **Arkansas:** In March 2023, S.B. 295⁵ was enacted, which specifies that a bond or other form of financial security must be submitted to ensure proper decommissioning of eligible net metering facilities (includes those with a capacity of up to 5 MW). The provision was later amended by S.B. 483,⁶ leaving in language that stipulates specific bond and insurance requirements related to eligible net metering facilities, but does not explicitly mention any relation to decommissioning.
- **Connecticut:** In June 2023, H.B. 5608⁷ was enacted, which requires solar facilities with a capacity of at least 2 MW that are sited on prime farmlands to provide a bond to cover the decommissioning and restoration costs associated with the project.
- **Georgia:** In February 2023, H.B. 300⁸ was introduced, which would impose a \$15/kW fee on retail sales of all new solar technology in the state. The fee must be collected by solar financing agents once they sell new technology to the retail customer, and will be transferred into a pocket of funds called the Solar Technology Trust Fund. Funds appropriated to the trust fund are dedicated to be used for decommissioning, remediation, and solar waste disposal.
- **Illinois:** In January 2023, H.B. 4412⁹ was enacted, which preempts county governments from requiring more restrictive decommissioning and financial assurance standards for certain commercial solar facilities. On June 9, 2023, S.B. 1127¹⁰ was enacted which granted an exception to the above rule to commercial solar development located within a certified enterprise zone, that was classified as industrial by the appropriate zoning authority after January 26, 2023, and is located within four miles of the intersection of Interstate 88 and Interstate 39.
- **Kentucky:** In March 2023, H.B. 4¹¹ was enacted after the state legislature voted to override the Governor’s veto. The bill went into effect in June 2023, and requires a decommissioning plan and bond (or some similar security) as part of applications for certificates to construct merchant electric generating facilities. Merchant facilities include solar projects, specifically those that operate at an aggregate capacity of at least 10 MW and sell electricity in the wholesale market. The decommissioning plan must be completed within 18 months of the date the facility no longer produces electricity for sale. The legislation allows local governments to implement stricter requirements.

⁴ [AZ H.B. 2618](#)

⁵ [AR S.B. 295](#)

⁶ [AR S.B. 483](#)

⁷ [CT H.B. 5608](#)

⁸ [GA H.B. 300](#)

⁹ [IL H.B. 4412](#)

¹⁰ [IL S.B. 1127](#)

¹¹ [KY H.B. 4](#)

- **Maine:** In June 2023, Maine legislators enacted several decommissioning-related bills. L.D. 826,¹² enacted without the Governor’s signature on June 25, 2023, amended the statutory definition of decommissioning to include solar waste recycling. L.D. 496,¹³ signed by the governor on June 16, 2023, specified that state rules regarding solar decommissioning apply to ground-mounted solar projects occupying at least three acres. Such ground-mounted projects must have started construction on or after October 1, 2021; the rules also apply to existing projects that undergo a transfer of ownership on or after October 1, 2021.

In April 2023, L.D. 1700¹⁴ was introduced, which stipulated that an entity that proposes to construct a ground-mounted solar facility must demonstrate the appropriate financial capacity to properly decommission the installation at any point of construction or operation. The bill requires decommissioning if the facility is abandoned for at least a year at any time after construction starts, with financial assurance needing to be provided in the form of a performance bond, surety bond, letter of credit, or other acceptable form of assurance. As part of the assurance documentation, the decommissioning costs must be fully funded prior to starting the construction of a ground-mounted facility, and in the case of undeveloped or uncontaminated land, decommissioning must restore the land to a state that is appropriate for future agricultural use. The bill was placed in legislative files and died on June 6, 2023.

- **Michigan:** In September 2023, H.B. 5120¹⁵ was introduced, which would mandate a decommissioning plan for solar projects with a capacity of at least 50 MW. The plan must be consistent with agreement reached between the landowner and the project owner/applicant, ensuring that the property be restored to pre-construction conditions. The bill also requires the submittal of financial assurance as part of the plan, which may be submitted in increments through a statutorily provided payment schedule. The bill was sent to the Governor’s desk in early November 2023 and was signed on November 28, 2023. Similar bills have been introduced in Michigan’s state legislature that vary based on the capacity of the solar project, including H.B. 5122¹⁶/S.B. 586¹⁷ (require plans and assurance from projects ranging from 50 MW to less than 100 MW) and S.B. 585 (requires plans and assurance from projects that are 100 MW or more). None of these additional bills have passed a legislative chamber.

Michigan’s state legislature also sent S.B. 277¹⁹ to the Governor’s desk in early November 2023, requiring solar projects participating in the Farmland and Open Space Preservation Program to submit financial assurance for decommissioning and site restoration to revert the land back to agricultural use. Decommissioning must make sure that the land is returned to normal agricultural operations by the first growing season after the solar project has been completely removed. S.B. 277 was signed by the Governor on November 28, 2023.

- **Nevada:** S.B. 421²⁰ failed to make it through the state legislature in 2023; it proposed to allow the board of county commissioners to institute certain decommissioning requirements for commercial solar facilities with a capacity of 500 kW or greater that were located in counties with a population under 700,000. The stipulated requirements could not be implemented with

¹² [ME L.D. 826](#)

¹³ [ME L.D. 496](#)

¹⁴ [ME L.D. 1700](#)

¹⁵ [MI H.B. 5120](#)

¹⁶ [MI H.B. 5122](#)

¹⁷ [MI S.B. 586](#)

¹⁸ [MI S.B. 585](#)

¹⁹ [MI S.B. 277](#)

²⁰ [NV S.B. 421](#)

stricter provisions by county governments, including financial assurance mechanisms that are not commercially reasonable.

- **New Hampshire:** In August 2023, the Governor signed S.B. 281²¹, which – among other things – provides an explicit specification that a project owner’s application for a certificate of a solar facility – must contain enough information to satisfy the application requirements set forth by each state agency that has jurisdiction and the applicable completed forms that must be filed with said state agencies.
- **New York:** In February 2023, A.B. 3117²² was introduced, which would mandate decommissioning plans for solar projects sited on prime soils or farmlands. The plans must include decommissioning surety bonds or another form of financial insurance that would secure either all or part of the costs required for decommissioning.
- **North Carolina:** In June 2023, H.B. 130²³ was enacted without the Governor’s signature. The bill establishes a statewide policy for decommissioning utility-scale solar projects that are 2 MW or more in capacity, or an additional 35% in capacity for existing projects – whichever is largest. Decommissioning plans must include descriptions of the project, site restoration, equipment to be salvaged, among other requirements. Project owners must register with the Department of Environmental Quality, and update said registration every five years. Project owners must provide a proposed financial assurance mechanism, with documentation to be provided and updated every five years. In order to establish sufficient funds to assure financial responsibility, the project owner is allowed to use insurance, financial tests, third-party guarantees by those 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 above. Assurance provided must provide protection equivalent to the financial protection that would be provided by insurance if insurance were the only mechanism used. The requirements become effective November 1, 2025, and apply to applicable utility-scale projects constructed before and after this date. The enacted bill does not preempt local governments from requiring more stringent requirements.
- **Oregon:** H.B. 2406²⁴ failed to make it through the state legislature in 2023, and would have required the Energy Facility Siting Council to adopt siting, construction, operation, and facility retirement standards, addressing the impacts of the energy facility’s equipment waste recycling and disposal needs over the lifetime of the energy facility.
- **Pennsylvania:** S.B. 211,²⁵ which passed the state’s Senate in March 2023 and is currently awaiting further action in the House, mandates decommissioning and financial assurance requirements for solar energy facilities with a capacity greater than 2 MW that receive a lease agreement after the bill’s enactment. An updated decommissioning plan must be provided ten years after the construction has commenced on the facility, and then every five years thereafter until the 25th year. The following forms of financial assurance would be accepted: 1) “an escrow account;” 2) “certificate of deposit or an automatically renewable, irrevocable letter of credit from a financial institution chartered or authorized to do business in this Commonwealth and regulated and examined by a Federal agency or the Commonwealth;”²⁶ 3)

²¹ [NH H.B. 281](#)

²² [NY A.B. 3117](#)

²³ [NC H.B. 130](#)

²⁴ [OR H.B. 2406](#)

²⁵ [PA S.B. 211](#)

²⁶ Ibid.

“bond[s] executed between the grantee and a corporate surety licensed to do business in this Commonwealth;” 4) or a “negotiable bond of the Federal Government, the Commonwealth or a municipality within this Commonwealth.” Local governments are preempted from instituting stricter requirements.

The Pennsylvania General Assembly also introduced H.B. 1842²⁷ in November 2023, would allow the development of community solar facilities in the state and stipulates – among other things – that community solar subscriber organizations are required to file a decommissioning plan with the applicable county government, to include the amount, timing, and type of financial assurance for the project. Under this bill, the organization is given the responsibility to decommission a community solar facility, which must include the removal and potential reuse and recycling of solar panels and site restoration.

- **Rhode Island:** Introduced in March 2023, S.B. 499²⁸ mandates financial assurance as part of decommissioning solar electric generating systems. The bill died due to the end of the legislative session, and because of the absence of a carryover.

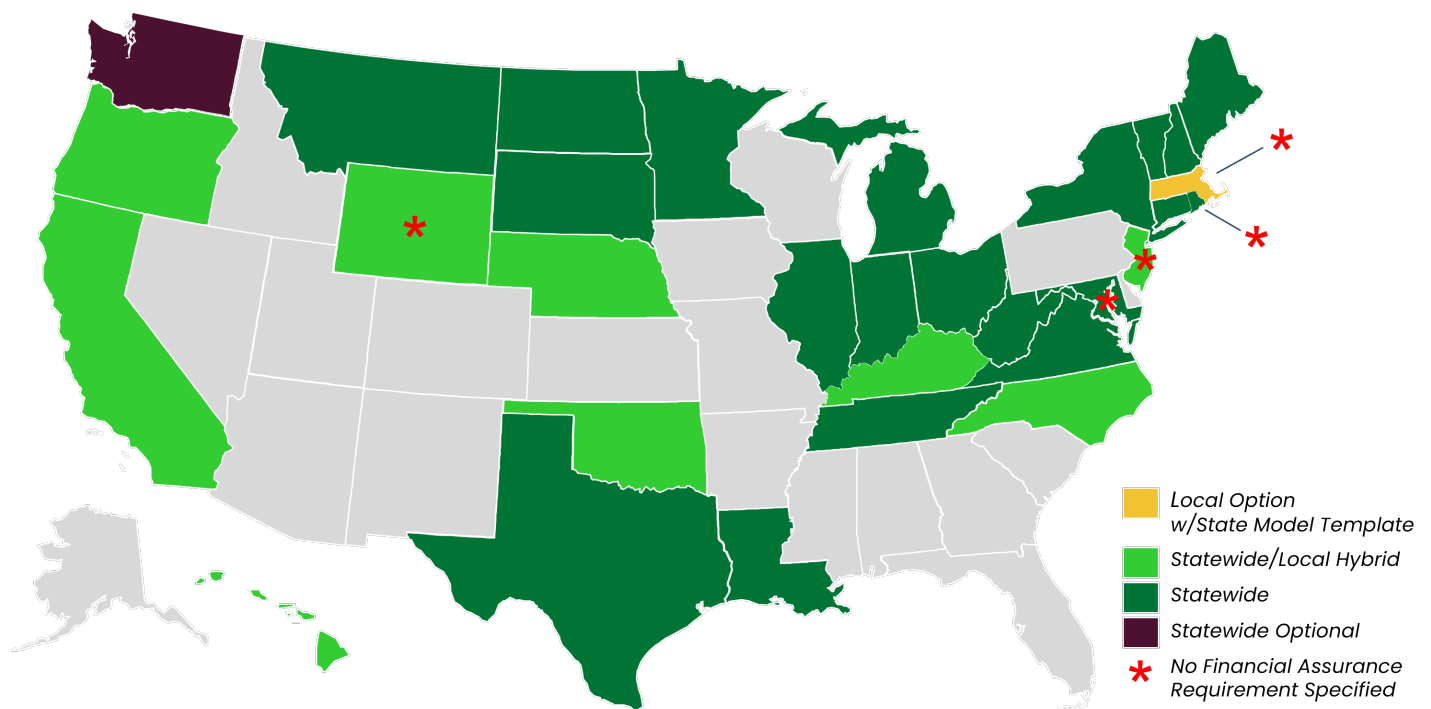
²⁷ [PA H.B. 1842](#)

²⁸ [RI S.B. 499](#)

Statewide Solar Decommissioning Policy Review

Listed below are the current state decommissioning policies, with states ranked in alphabetical order. As of 2023, **20 states** have a statewide policy, **9 states** have a statewide/local hybrid policy, **1 state** has a statewide optional policy, and 1 state provides an official model template that local governments may adopt. Each entry includes information on the corresponding state's total installed solar capacity (in MW) based on the Solar Energy Industry Association's Q4 2023 data and the corresponding state capacity ranking:²⁹

Figure 1. Map of Solar Decommissioning Policies in the United States (as of December 2023)



²⁹ All installed solar capacity numbers and rankings for each state are taken from the following map: <https://www.seia.org/states-map>

California

**Statewide / Local
Hybrid**
Policy Model

#1
SEIA State Solar
Capacity Rating

43,244 MW
Total Installed Solar
Capacity

LAW: California Code of Regulations Title 14 Section 3100 et seq.³⁰

DECOMMISSIONING RULES

As a condition of a self-renewing Solar Use Easement,³¹ a solar easement project owner³² must submit a decommissioning plan and financial assurance to the local city or county government with jurisdiction. The locality submits the application, decommissioning plan, and proof of financial assurance to the California Department of Conservation for review and final approval. Soil management and site restoration plans are required to be filed with the Department. Site restoration plans must include restoration to the same condition that existed at the time of approval for the solar use easement including restoration procedures including equipment and structure removal and any provisions for monitoring restoration progress at the site.³³

FINANCIAL ASSURANCE

Type not specified, but project owners must review and resubmit every five years.



³⁰ [CA Code of Regulations Title 14 § 3100 et seq.](#)

³¹ [CA Government Code Section 51190\(c\)](#)

³² [CA Code of Regulations Title 14 § 3101](#)

³³ [CA Code of Regulations Title 14 § 3108](#)

Connecticut

Statewide

Policy Model

#23

SEIA State Solar
Capacity Rating

1,361 MW

Total Installed Solar
Capacity

LAW: Public Act No. 23-163³⁴ General Statutes of
Connecticut: 16-50k(a)³⁵

DECOMMISSIONING RULES

Apply to projects over 2 MW on prime farmland or prime forestland. Decommissioning and returning the land to productive agricultural use would include: removing solar arrays; removing racking posts completely from the ground by pulling them out (not just cutting them at ground level); removing foundations for inverters and transformers; de-compacting compacted soils; backfilling excavations with only native soils; revegetating (if vegetation disturbance is a result of decommissioning); removing access roads, drainage ditches, and detention ponds and backfilling using native soils to level the terrain (unless agreed upon by the landowner); and testing soil and incorporating needed amendments to restore the soil for farming.^{36,37}

FINANCIAL ASSURANCE

Projects on prime farmland over 2 MW must furnish a bond to cover all costs of restoring the site to its former use when requesting a certificate of environmental compatibility at the beginning of project construction, as a result of H.B. 5608's enactment in June 2023.³⁸ Solar projects over 2 MW located on core forestland also require a certificate of environmental compatibility, but the wording of the statute does not explicitly state that these projects would require a decommissioning/restoration bond. However, other materials, like a letter of support for PA23-163 from the Council of Environmental Quality, imply that projects on core forestland must furnish a decommissioning/restoration bond.³⁹

³⁴ [Public Act No. 23-163](#)

³⁵ [Chapter 277a - Public Utility Environmental Standards Act](#)

(Note: As of December 2023, changes from Public Act No. 23-163 have not been integrated.)

³⁶ [Steps for Solar Development](#)

³⁷ [Draft Guidance for Siting Solar on Agricultural Land](#)

³⁸ [Public Act No. 23-163](#)

³⁹ [Council on Environmental Quality](#)



Hawaii

**Statewide / Local
Hybrid**
Policy Model

#20
SEIA State Solar
Capacity Rating

1,826 MW
Total Installed Solar
Capacity

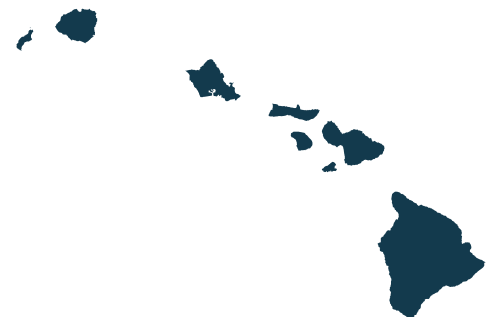
LAW: Hawaii Revised Statutes Section 205⁴⁰

DECOMMISSIONING RULES

As a condition of a Special Use Permit, solar energy facilities located on agricultural lands with a soil productivity rating of B or C must comply with decommissioning requirements and submit proof of financial assurance to the local county planning commission with jurisdiction before beginning construction. Local county commissions must submit all special use permit applications to the Hawaii Land Use Commission.⁴¹

FINANCIAL ASSURANCE

Type unspecified, but must satisfy the county planning commission.



³⁷ [HRS § 205-4.5](#)

³⁸ [HI Revised Statutes 205-4.5\(21\)](#)

Illinois

Statewide

Policy Model

#15

SEIA State Solar
Capacity Rating

2,347 MW

Total Installed Solar
Capacity

LAW: 505 Illinois Compiled Statutes Chapter 147/10⁴²

DECOMMISSIONING RULES

Solar facilities with a capacity over 500 kW located on agricultural land owned by a third party must file an Agricultural Impact Mitigation Agreement outlining construction and deconstruction plans with the state Department of Agriculture and submit a deconstruction plan and financial assurance to the county government with jurisdiction prior to beginning construction.⁴³

For commercial solar energy systems that are ground installed and utilize the solar energy for primarily wholesale or retail sale purposes,⁴⁴ county governments are not allowed to require stricter decommissioning requirements.⁴⁵ Commercial systems do not include utility scale energy facilities eligible to participate in an Illinois Power Agency-conducted procurement event. An exemption is given to commercial solar development within a certified enterprise zone under the Illinois Enterprise Zone Act,⁴⁶ that was classified as industrial by its zoning authority after January 26, 2023, and is located within four miles of the intersection of Interstate 88 and Interstate 39.⁴⁷

FINANCIAL ASSURANCE

Regarding the above-mentioned solar facilities with a capacity over 500 kW, after ten years of commercial operation, the project owner must review and resubmit deconstruction plans and financial assurance.⁴⁸

For commercial solar energy systems that are ground installed and utilize the solar energy for primarily wholesale or retail sale purposes,⁴⁹ county governments are not allowed to require stricter financial assurance requirements.⁵⁰ An exemption is given to commercial solar development within a certified enterprise zone under the Illinois Enterprise Zone Act, that was classified as industrial by its zoning authority after January 26, 2023, and is located within four miles of the intersection of Interstate 88 and Interstate 39.⁵¹



⁴² [505 ILCS 147/10](#)

⁴³ Ibid.

⁴⁴ [35 ILCS 200/10-720](#)

⁴⁵ [55 ILCS 5/5-12020](#)

⁴⁶ [20 ILCS 665/1 et seq.](#)

⁴⁷ Ibid.

⁴⁸ [505 IL Compiled Statutes 147/15](#)

⁴⁹ [35 ILCS 200/10-720](#)

⁵⁰ [55 ILCS 5/5-12020](#)

⁵¹ Ibid.

Indiana

Statewide

Policy Model

#16

SEIA State Solar
Capacity Rating

2,299 MW

Total Installed Solar
Capacity

LAW: Indiana Code Title 8, Article 1, Chapter 42, Section 18⁵²

DECOMMISSIONING RULES

Intent to decommission must be submitted to permit authority 60 days prior to end of commercial service. Structures, foundations, roads, gravel areas, and cables shall be removed from the site to a depth of 36 inches below grade.

The ground must be restored to a reasonably similar condition to its condition prior to construction of the solar project.

FINANCIAL ASSURANCE

Surety bond, parent company guarantee, irrevocable letter of credit, or other proof deemed sufficient by the permit authority. Security shall be required in increments based on project life: 25% of total estimated decommissioning costs by the start date of the system's commercial operation. 50% of total estimated decommissioning costs by the fifth anniversary of system commercial operations, 100% of total estimated decommissioning costs by the tenth anniversary of operations. The estimated decommissioning cost shall be reevaluated by a licensed or registered engineer on the tenth anniversary of commercial operations and every five years thereafter.



⁵² [Indiana Code Chapter 42. Default Standards for Commercial Solar Energy Systems](#)

Kentucky

**Statewide / Local
Hybrid**
Policy Model

#42
SEIA State Solar
Capacity Rating

172 MW
Total Installed Solar
Capacity

LAW: Kentucky Revised Statutes, Chapter 278, Sec. 704⁵³

DECOMMISSIONING RULES

Local planning and zoning commissions have authority to supersede state decommissioning and setback rules here.

Generation facilities must file a decommissioning plan to describe how facilities will be decommissioned and dismantled at the end of their useful life. Decommissioning plans shall remove all above-ground facilities and underground components to a depth of three feet, unless otherwise agreed to by the landowner. Plans shall return the land to a substantially similar state as was found prior to the start of construction.

Interconnection components and other facilities shall be left in place for future use at the completion of decommissioning, unless requested by the landowner.

FINANCIAL ASSURANCE

Bond or similar financial security instrument is required. The amount of the bond shall be determined by an independent licensed engineer and shall be either the calculated net present value of the cost of completing the decommissioning plan or the bond amount required by the county or municipal government with jurisdiction on the project site. Projects in multiple jurisdictions will use the highest bond security requirement of those authorities.

If the facility is to be located in a locality that has not established a decommissioning bond or security obligation, the bond shall name the locality as a secondary beneficiary (with the locality's consent).

⁵³ [Kentucky Revised Statutes, Chapter 278, Sec. 704](#)



Louisiana

Statewide

Policy Model

#39

SEIA State Solar
Capacity Rating

315 MW

Total Installed Solar
Capacity

LAW: Louisiana Revised Statutes 30:1154⁵⁵

DECOMMISSIONING RULES

The statute requires at minimum for property leases for the production of solar energy to include decommissioning requirements. The decommissioning plan must include plans for closing at the end of life of the facility, or in the event that a disaster makes facility operations impossible. The plan must be updated every five years, and be reviewed by the Department of Natural Resources and approved by the Secretary of the Department of Natural Resources. No specific facility size is given in the statute, besides that a facility is one that includes one or more solar energy systems.

FINANCIAL ASSURANCE

Construction permits must include a bond or other acceptable financial security in an amount described by the Secretary of the Department of Natural Resources for efficient site closure. Any bond or other financial instrument is allowed and must be payable to the Department of Natural Resources, and may be collected even from facilities certified by the Public Service Commission or New Orleans City Council (applicable to solar facilities sited in New Orleans) before August 3, 2022. The estimated amount or other specific bond/security requirements must be determined by reviewing the following: applicant assets, debts, and compliance history; condition and capacity of facility; and the estimated cost of facility closure and site restoration, but only the salvage value and related infrastructure can be used to determine the estimated cost of restoration and closure if the materials are still available during decommissioning, while the facility owner is dealing with bankruptcy.



⁵⁵ [Louisiana Revised Statutes 30:1154](#)

Maine

Statewide

Policy Model

#28

SEIA State Solar
Capacity Rating

948 MW

Total Installed Solar
Capacity

LAW: Maine Revised Statutes 35-A §§ 3491 - 3496⁵⁶

DECOMMISSIONING RULES

Under state statute, the Department of Environmental Protection requires a decommissioning plan in all organized municipalities for solar projects that use 3 or more acres and start construction after September 30, 2021, or for such sized projects that undergo an ownership transfer after this date. Decommissioning must also include the removal of all solar components, including foundations and anchoring at depths of at least 24 inches or bedrock (whichever is less), among other structures and ancillary equipment to the same depths. If any developed portion is or is planned to be on farmland within five years before construction starts, the plan must provide for farmland restoration that allows the resumption of agricultural activities. Solar components on farmland that are at least 48 inches deep or to the depth of bedrock (whichever is less) must be removed. The decommissioning plan must be updated 15 years after approval of the initial plan and then additionally five years thereafter. The decommissioning plan must include the restoration of the grading and vegetation of utilized land and demonstrate current and future financial capacity to decommission properly. The Maine Land Use Planning Commission is responsible for enforcing decommissioning in the unorganized and deorganized areas of the state. If solar panels and other waste components of the solar project are recyclable, state decommissioning rules require such waste to be recycled by authorized facilities.

FINANCIAL ASSURANCE

Eligible assurance types include performance or surety bond and irrevocable letter of credit.



⁵⁶ [Maine Revised Statutes 35-A §§ 3491 - 3496](#)

Maryland

Statewide
Policy Model

#19
SEIA State Solar
Capacity Rating

1,865 MW
Total Installed Solar
Capacity

LAW: Code of Maryland Regulations Chapter 27.01.14⁵⁷

DECOMMISSIONING RULES

State statute requires a decommissioning plan to be submitted for solar projects – including major and minor solar systems, meaning those that produce more than 2 MW of electricity, or 2 MW or less, respectively – except for residential solar systems that generate electricity for use on the same residential lot. No additional information is given about the decommissioning plan.

FINANCIAL ASSURANCE

None specified in rules, but the state's Public Service Commission does often require a mechanism for funding decommissioning.⁵⁸



⁵⁷ [Code of Maryland Regulations Chapter 27.01.14](#)

⁵⁸ [Office of People's Counsel Testimony Re: H.B. 908 \(February 23, 2023\)](#)

Massachusetts

**Local Option w/ State
Model Template**
Policy Model

#11
SEIA State Solar
Capacity Rating

4,376 MW
Total Installed Solar
Capacity

LAW: Massachusetts Model Zoning Bylaw for the Regulation of Solar Energy Systems⁵⁹

DECOMMISSIONING RULES

Recommendations in the model bylaws include removal requirements for solar energy systems that cease operation. All physical components must be removed, solid and hazardous wastes must be disposed of according to applicable standards, and erosion from the site must be minimized through stabilization or re-vegetation. With agreement from the Site Plan review authority, owners/operators may leave landscaping and designated below-grade foundations in place to minimize vegetation disturbance or erosion.

FINANCIAL ASSURANCE

Communities may require financial surety, but specific types are not listed.



⁵⁹ [Massachusetts Executive Office of Energy and Environmental Affairs Model Zoning Bylaw \(December 2014\)](#)

Michigan

Statewide

Policy Model

#24

SEIA State Solar
Capacity Rating

1,314 MW

Total Installed Solar
Capacity

LAW: S.B. 277⁶⁰ (not yet in statute, will be added effective February 13, 2024); H.B. 5120⁶¹ (not yet in statute, will be added effective November 29, 2024)

DECOMMISSIONING RULES

Solar projects with a capacity of at least 50 MW must provide a decommissioning plan that is consistent with the agreement reached between the landowner and the project owner/applicant. The property must be restored to pre-construction conditions, and the plan must include the removal of any above-surface infrastructure no longer serving a purpose.⁶²

Solar projects participating in the Farmland and Open Space Preservation Program must make sure that the utilized farmland is restored back to normal agricultural operations by the first growing season after the solar project has been completely removed.⁶³

FINANCIAL ASSURANCE

Solar projects with a capacity of at least 50 MW must submit assurance in the form of a bond, a parent company guarantee, or an irrevocable letter. Cash is not allowed as a form of assurance. The assurance amount must not be less than the estimated decommissioning cost after deducting the salvage value of the project assets. The required financial assurance may be submitted in increments through the following payment schedule according to the time of commercial operation: at least 25% by the start of full commercial operation; at least 50% by the start of the fifth year of operation; 100% by the start of the tenth year of operation.

Solar projects participating in the Farmland and Open Space Preservation Program must submit a bond or irrevocable letter of credit payable to the state as assurance for reverting the land used back to agricultural use. Assurance must be adjusted every three years to ensure proper coverage of estimated decommissioning costs.



⁶⁰ [MI S.B. 277](#)

⁶¹ [MI H.B. 5120](#)

⁶² Ibid.

⁶³ [MI S.B. 277](#)

Minnesota

Statewide

Policy Model

#17

SEIA State Solar
Capacity Rating

1,917 MW

Total Installed Solar
Capacity

LAW: Minnesota Administrative Rules 7854.0500⁶⁴ and
Minnesota Statutes 216E.01 - 216E.02⁶⁵

DECOMMISSIONING RULES

Statutes and rules requiring decommissioning impact large electric power generation plants that operate at a capacity of at least 50 MW, with plants needing a permit from the Public Utilities Commission to operate. The permit application must include the following information regarding decommissioning and site restoration: anticipated project life; cost estimates; methods and schedule for updating cost estimates; and the manner in which decommissioning and restoration will take place.

FINANCIAL ASSURANCE

Required as part of the decommissioning requirements. No specifics on types of assurance.



⁶⁴ [Minnesota Administrative Rules 7854.0500](#)

⁶⁵ [Minnesota Statutes 216E.01 - 216E.02](#)

Montana

Statewide

Policy Model

#38

SEIA State Solar
Capacity Rating

359 MW

Total Installed Solar
Capacity

LAW: Administrative Rules of Montana 17.86.1⁶⁶

DECOMMISSIONING RULES

State administrative rules require solar generation facility owners -- those with a nameplate capacity of at least 2 MW and produces electricity not consumed on the premises of the solar facility or on immediately adjacent premises -- to submit decommissioning plans to the Department of Environmental Quality, which must include the following: a cost estimate for decommissioning; as-built plans of the facility; agreements signed by the landowner and project owner that provide information on alternative reclamation strategies or the non-removal of equipment and buildings; a description of the chosen decommissioning process; removal of electrical and ancillary equipment; removal underground cables to a depth of 24 inches or deeper if necessary for reclamation purposes; removal of solar foundations to minimum depth of 26 inches below grade or an alternative if necessary; soil reclamation; repair of public roads and other publicly necessary infrastructure, including removal and grading of all access roads; salvage value estimates, among other cost estimates.

FINANCIAL ASSURANCE

Private bonding must be provided, including the terms and conditions of a lease agreement between landowner and project owner incorporating said bonding. Decommissioning bonds, for facilities that started operating after 2006, must be submitted before the 15th year of operations is reached. Projects are exempt from submitting a bond if the private landowner owns at least 10% of the facility. The owner must submit either a surety or collateral bond.



⁶⁶ [Administrative Rules of Montana 17.86.1](#)

Nebraska

**Statewide / Local
Hybrid**
Policy Model

#47
SEIA State Solar
Capacity Rating

87 MW
Total Installed Solar
Capacity

LAW: Nebraska Revised Statute 66-911.01⁶⁷

DECOMMISSIONING RULES

No specifics given on what needs to be included as part of the decommissioning plan or what kinds of solar facilities must have a plan, except that it depends on local requirements.

FINANCIAL ASSURANCE

The type of financial assurance that is required depends on local decommissioning requirements.

⁶⁷ [Nebraska Revised Statute 66-911.01](#)



New Hampshire

Statewide

Policy Model

#41

SEIA State Solar
Capacity Rating

250 MW

Total Installed Solar
Capacity

LAW: New Hampshire Revised Statutes Section 162-H:7⁶⁸ & New Hampshire Site Evaluation Committee Site 301.08⁶⁹

DECOMMISSIONING RULES

As part of an application for a certificate for a solar facility (defined as those with a capacity of at least 30 MW⁷⁰) that must be filed with the chairperson of the site evaluation committee in the state, a description of the elements for a facility decommissioning plan is required. The plan must include a description of sufficient funding for implementation (not accounting for salvage value); that all transformers must be transported off-site; and the removal of underground infrastructure at depths less than four feet, while those at depths greater than four feet must be abandoned in place.

FINANCIAL ASSURANCE

Plans include details of the financial assurances, which can be in the form of an irrevocable standby letter of credit, a performance bond, surety bond, or unconditional payment guarantee that is executed by a parent company of the facility owner maintaining an investment grade credit rating.



⁶⁸ [New Hampshire Revised Statutes Section 162-H:7](#)

⁶⁹ [New Hampshire Site Evaluation Committee Site 301.08](#)

⁷⁰ [New Hampshire Revised Statutes Section 162-H:2, XII](#)

New Jersey

**Statewide / Local
Hybrid**
Policy Model

#10
SEIA State Solar
Capacity Rating

4,696 MW
Total Installed Solar
Capacity

LAW: Agricultural Management Practice for Solar Facilities⁷¹

DECOMMISSIONING RULES

Solar generation facilities located on commercial farmland subject to the Right to Farm Act⁷² must submit a conservation plan which includes decommissioning to the local soil conservation district with jurisdiction.

Solar generation projects located in the Pinelands Management area must submit a landscaping plan which includes decommissioning.⁷³

FINANCIAL ASSURANCE

The state does not require financial assurance, but localities may impose financial assurance requirements for approval of projects.

New York

Statewide

Policy Model

#8

SEIA State Solar
Capacity Rating

4,937 MW

Total Installed Solar
Capacity

LAW: Chapter XVIII, Title 19 of NYCRR §900-1.2, §900-2.24, §900-10.2⁷⁴

DECOMMISSIONING RULES

As part of the final decommissioning and site restoration plan that must be submitted to the Office of Renewable Energy Siting in conjunction with other pre-construction compliance filings for facilities that cannot be completed or reach their end of life, a cost estimate is required for components removed four feet below grade in agricultural land and three feet below grade in non-agricultural land, as well as removal and restoration of any access road locations). The cost estimates must include a gross and net estimate, including projected salvage value, and a 15% contingency cost that is based on the overall estimate. The plan at a minimum must address environmental impacts, timeline, funding, future site usage, recycling, safety and removal of any hazardous conditions. Solar facilities that are at least 25 MW must follow these requirements, including any co-located energy storage system.

FINANCIAL ASSURANCE

The final decommissioning and restoration plan requires proof of a letter of credit or other financial assurance approved by the Office of Renewable Energy Siting. A letter of credit must be provided a year after system operation, with updates every five years thereafter.



⁷⁴ [Chapter XVIII, Title 19 of NYCRR §900-1.2, §900-2.24, §900-10.2](#)

North Carolina

**Statewide / Local
Hybrid**
Policy Model

#4
SEIA State Solar
Capacity Rating

8,648 MW
Total Installed Solar
Capacity

LAW: North Carolina General Statutes Chapter 130A, Article 9, Section 309.240⁷⁵

DECOMMISSIONING RULES

Rules established by H.B. 130⁷⁶ in 2023 apply to new solar facilities with nameplate capacity 2 MW or greater. Decommissioning plans must be filed with the Department of Environmental Quality for approval. Decommissioning requires removal of all project components from the site after operations cease, reusing and recycling where practicable, and properly disposing of hazardous and non-hazardous wastes. A decommissioning cost estimate must also be provided as part of the overall plan. Decommissioning must restore the property to its condition before the utility-scale solar project was sited, as nearly as practicable OR an alternative condition agreed upon by the landowner and the project owner. Local governments and landowners may require more stringent terms in contracts.

FINANCIAL ASSURANCE

Project owners 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 requires renewal every five years.



⁷⁵ [North Carolina General Statutes Chapter 130A, Article 9, Section 309.240](#)

⁷⁶ [NC H.B. 130](#)

North Dakota

Statewide

Policy Model

#50

SEIA State Solar
Capacity Rating

2 MW

Total Installed Solar
Capacity

LAW: North Dakota Administrative Code Chapter 69-09-10⁷⁷

DECOMMISSIONING RULES

Apply to commercial solar facilities with a total nameplate generating capacity of at least 500 kW. The decommissioning plan must include the anticipated life of said facility, a cost estimate (not including salvage offsets, and must be updated ten years after initial approval and then a continual update every five years after), cost estimate method, how the project will be decommissioned, expected impacts on natural resources, and detailed financial assurance plan. The decommissioning period must start within 12 months after end of life or facility abandonment, and must be completed within 24 months after end of life or abandonment. When actively decommissioning the facility, the following is required: removing all panel racking, support, fencing, cables, inverters, and other equipment; removing underground cables, pilings, anchors, foundations, buildings and other ancillary equipment; restoring the site to the original topography before the facility was developed, with topsoil re-spread over disturbed areas at restored levels; as well as reseeded and restoring/grading topsoil of areas according to conservation recommendations. A waiver may be given to facilities with a capacity of max 5 MW.

FINANCIAL ASSURANCE

Assurance must be provided upon ten years of operation, for sufficient decommissioning; and can be in the form of a performance bond, in combination or alone, as cash escrow (held by a federal insured financial institution), a surety bond, irrevocable letter of credit, guarantee, parent guarantee, or another acceptable form of assurance.

⁷⁷ [North Dakota Administrative Code Chapter 69-09-10](#)



Ohio

Statewide

Policy Model

#22

SEIA State Solar
Capacity Rating

1,444 MW

Total Installed Solar
Capacity

LAW: Ohio Revised Code, Title 49, Chapter 4906, Section 4906.21⁷⁸

DECOMMISSIONING RULES

At least 60 days prior to the commencement of construction of a solar facility, the applicant must submit a comprehensive decommissioning plan to the power siting board. The plan must include a schedule for decommissioning that cannot exceed 12 months from the end of commercial operations.

FINANCIAL ASSURANCE

A performance bond must be posted and updated every five years.



⁷⁸ [Ohio Revised Code, Title 49, Chapter 4906, Section 4906.21](#)

Oklahoma

**Statewide / Local
Hybrid**
Policy Model

#44
SEIA State Solar
Capacity Rating

147 MW
Total Installed Solar
Capacity

LAW: Oklahoma Statute Title 60 Section 820.1⁷⁹

DECOMMISSIONING RULES

The statute applies to commercial solar systems, not those used for domestic purposes only. No other specifics are given as to what needs to be included in illustrating decommissioning plans. The statute does not limit plan requirements, but does require counties to file and record associated documentation.

FINANCIAL ASSURANCE

A security must be included as part of the application, but no other specifics are given as to what type.



⁷⁹ [Oklahoma Statute Title 60 Section 820.1](#)

Oregon

**Statewide / Local
Hybrid**

Policy Model

#21

SEIA State Solar
Capacity Rating

1,715 MW

Total Installed Solar
Capacity

LAW: Oregon Revised Statutes 215.446⁸⁰

DECOMMISSIONING RULES

The statute impacts solar generation facilities using more than 100 acres but not more than 160 acres of high-value farmland;⁸¹ more than 100 acres but not more than 1,280 acres of predominantly cultivated or predominantly made of classes I to IV soils; or is using more than 320 acres but not more than 1,920 acres located on other kinds of land. As part of the statute, in order to receive a permit for a solar facility, the applicant must demonstrate that the facility site can be restored to useful and nonhazardous conditions.

FINANCIAL ASSURANCE

Applicants are required to obtain financial assurances that satisfy and secure site restoration. No specifics given as to what kind of assurance is required, but the county is allowed to specify the specific timeline for assurance.



⁸⁰ [Oregon Revised Statutes 215.446](#)

⁸¹ [Oregon Revised Statutes 195.300](#)

South Dakota

Statewide

Policy Model

#46

SEIA State Solar
Capacity Rating

102 MW

Total Installed Solar
Capacity

LAW: South Dakota Administrative Rules 20:10:22:33⁸²

DECOMMISSIONING RULES

The statute requires a decommissioning plan that includes cost estimates and the site condition estimates of decommissioning. The statute gives no other specifics.

FINANCIAL ASSURANCE

Bond, guarantee, insurance, or other instrument required. The Commission must consider the facility's size, location, and the financial condition of the application before determining what specific type of funding is to be required; the same criteria must be used to determine the amount of funding.



⁸² [South Dakota Administrative Rules 20:10:22:33](#)

Rhode Island

Statewide

Policy Model

#31

SEIA State Solar
Capacity Rating

732 MW

Total Installed Solar
Capacity

LAW: Rhode Island General Laws § 42-98-3⁸³ & § 42-98-8⁸⁴

DECOMMISSIONING RULES

State law requires plans for decommissioning of the facility at the end of its useful life, which must be submitted via application to the state's Energy Facility Siting Board. The requirements impact major energy facilities (including solar) that have a gross capacity of at least 40 MW. No additional information is given via state law.

FINANCIAL ASSURANCE

Not mentioned in the rules.



⁸³ [Rhode Island General Laws § 42-98-3](#)

⁸⁴ [Rhode Island General Laws § 42-98-8](#)

Tennessee

Statewide

Policy Model

#27

SEIA State Solar
Capacity Rating

953 MW

Total Installed Solar
Capacity

LAW: Tennessee Code § 66-9-207⁸⁵

DECOMMISSIONING RULES

Solar power facilities with capacity 10 MW and greater must enter into agreements that provide for the removal of all components of the facility located on a landowner's premises up to a depth of 36 inches. The land must be restored to its condition prior to the beginning of construction as near as reasonably possible.

Local governments may regulate solar facilities according to their zoning authority, but may not impose more stringent requirements than the state's.

FINANCIAL ASSURANCE

A solar facility agreement must deliver financial assurance to the landowner in incremental amounts: at least 5% of the decommissioning cost by the commercial operation date, at least 50% of the cost on the tenth anniversary of system operations, and the full decommissioning cost by the fifteenth anniversary of system operations. Local government may not require financial assurance more stringent or additional to those required by the state. Acceptable financial assurance includes surety bond, collateral bond, irrevocable letter of credit, parent guarantee, cash, cashier's check, certificate of deposit or other approved negotiated instrument.

⁸⁵ [Tennessee Code § 66-9-207](#)



Texas

Statewide

Policy Model

#2

SEIA State Solar
Capacity Rating

20,028 MW

Total Installed Solar
Capacity

LAW: Texas Utilities Code Title 6, Chapter 302⁸⁶

DECOMMISSIONING RULES

Each private (i.e. non-utility-owned) solar installation approved after September 1, 2021, must include an agreement between the landowner and a land lease grantee for the grantee to remove all panels, mounting and racking equipment, wiring, overhead wiring, transformers, substations, and footings from the site. All removals must go to a depth of three feet below surface grade at the project site.

Decommissioning agreements must provide, at the request of the landowner, for the removal of any road constructed for the solar project and for the removal of any rock over twelve inches in diameter excavated during the decommissioning and removal process.

Property must be returned to a tillable state and/or returned to as near a condition as possible to its state prior to construction of the solar facility, including re-seeding native grasses.

FINANCIAL ASSURANCE

Acceptable forms of financial assurance include parent company guarantee with a minimum investment grade credit rating for the parent company issued by a major domestic credit rating agency, a letter of credit, a bond, or another form of financial assurance reasonably acceptable to the landowner. The amount of financial assurance must be at least equal to the estimated amount by which the cost of removing the solar power facilities from the landowner's property and restoring the property to as near as reasonably possible the condition of the property as of the date the agreement begins exceeds the salvage value of the solar power facilities, less any portion of the value of the solar power facilities pledged to secure outstanding debt. Project owners must submit an updated estimate on removal costs on or before the ten-year anniversary of the project and every five years thereafter.



⁸⁶ [Texas Utilities Code Title 6, Chapter 302](#)

Vermont

Statewide

Policy Model

#37

SEIA State Solar
Capacity Rating

429 MW

Total Installed Solar
Capacity

LAW: 30 Vermont Statutes Annotated.⁸⁷ § 248 & Vermont Public Utility Commission Rule 5.900⁸⁸

DECOMMISSIONING RULES

The Public Utility Commission is required to adopt rules related to issuing certificates of public good for in-state facilities, including decommissioning plans. The requirements as laid out by the Commission include the following: a submission of decommissioning cost estimates in present-day dollars (to include all labor, equipment, transportation, and associated disposal costs; restoration costs; primary agricultural soil reclamation costs; permitting costs associated with decommissioning; activity management, supervisions, and site safety costs; and any other costs); salvage value cannot be subtracted from cost estimates; estimate preparer information; renewal of the decommissioning plan every three years, among others. The decommissioning requirements are directed towards non-utility-owned facilities that have a plant capacity of more than 500 kW. For utility-owned facilities, the Commission may require the above requirements or mandate alternative means; and non-utility-owned facilities that have a capacity of at least 150 kW and up to 500 kW must be removed with site restoration to ensure land conditions are restored to the greatest extent practicable; net-metered facilities with a capacity of more than 150 kW must also submit a decommissioning plan.⁸⁹ Roof-mounted facilities and parking lot canopies are exempt from the rules.

FINANCIAL ASSURANCE

The Commission's requirements include financial assurance, specifically an irrevocable standby letter of credit equal to the estimated decommissioning and restoration costs; and the letter of credit must be issued by an A-rated financial institution. The Commission may approve of other forms of financial security.



⁸⁷ [30 Vermont Statutes Annotated § 248](#)

⁸⁸ [Vermont Public Utility Commission Rule 5.900](#)

⁸⁹ [Vermont Public Utility Commission Rule 5.100](#)

Virginia

Statewide

Policy Model

#9

SEIA State Solar
Capacity Rating

4,703 MW

Total Installed Solar
Capacity

LAW: Code of Virginia, Title 15.2, Chapter 22, Article 6, Section 2241.2⁹⁰

DECOMMISSIONING RULES

Localities shall require a written agreement to decommission a solar energy facility as part of local approval processes or as a condition of approval of a site plan. Decommissioning applies to solar energy equipment, facilities and devices and requires reasonable restoration of property including soil stabilization and re-vegetation of the ground cover disturbed by the project.

FINANCIAL ASSURANCE

The owner, lessee, or project developer must provide assurance to the applicable locality in which the solar facility is located through either certified funds, cash escrow, a bond, letter of credit, or parent guarantee, based upon the estimates of a licensed professional engineer in the state. The licensed professional must have experience in preparing decommissioning estimates and is approved by the corresponding locality. Estimates may include the net salvage value of related equipment, facilities, or devices.

⁹⁰ [Code of Virginia, Title 15.2, Chapter 22, Article 6, Section 2241.2](#)



Washington

**Statewide
Optional**
Policy Model

#34
SEIA State Solar
Capacity Rating

647 MW
Total Installed Solar
Capacity

LAW: Washington Administrative Code Chapter 463-28,⁹¹
Washington Administrative Code 463-72⁹²

DECOMMISSIONING RULES

Note: Washington permits a developer option to apply for certification through the Energy Facility Site Evaluation Council (EFSEC)⁹³ instead of from their local authority. EFSEC approval would preempt local requirements.⁹⁴ The application must be approved by the EFSEC and comply with the definitions of energy facilities listed in Washington Statutes.⁹⁵

EFSEC applicants must provide a plan for site restoration and/or preservation for approval by the Council. Plans must provide processes and measures to restore or preserve the site to protect the environment and all segments of the public.⁹⁶ Site restoration plans should parallel decommissioning plans, and must have enough detail to resolve all anticipated environmental, health, and safety issues for the project.⁹⁷ Upon completion of construction, the certificate holder for the facility must review the plan using current knowledge and information every five years (or when there is a change in project status) and report to the EFSEC.

FINANCIAL ASSURANCE

The site restoration plans submitted to the EFSEC must include provision of evidence of insurance coverage and closure bonds or other financial instruments in an amount justified by the restoration plan.⁹⁸ (**Note:** this applies to projects seeking EFSEC certification rather than local approval.⁹⁹)

⁹¹ [Chapter 463-28 WAC](#)

⁹² [Chapter 463-72 WAC](#)

⁹³ [State of Washington - Energy Facility Site Evaluation Council](#)

⁹⁴ [Chapter 463-28 WAC Subsection 20](#)

⁹⁵ [Chapter 463-10 WAC](#)

⁹⁶ [Chapter 463-72 WAC Subsection 20](#)

⁹⁷ [Chapter 463-72 WAC Subsection 40](#)

⁹⁸ Ibid.

⁹⁹ [State of Washington - Energy Facility Site Evaluation Council](#)



West Virginia

Statewide

Policy Model

#48

SEIA State Solar
Capacity Rating

35 MW

Total Installed Solar
Capacity

LAW: WV Code Sec. 60-11-4¹⁰⁰ WV Code Sec. § 60-11-5¹⁰¹

DECOMMISSIONING RULES

Owners of solar or wind generation facilities must prepare a decommissioning plan, unless exempt. Landowners and project owners may reach alternative agreements to the requirements below. Exempt facilities have a nameplate capacity under 1 MW, or are operated by a public utility capable of demonstrating acceptable financial integrity and long-term viability to the Commission. Decommissioning plans shall include a commitment to remove all above-ground solar panels and towers and diagrams of all structural and electrical components and all disturbances associated with the facility. Plans must include descriptions of the manner of decommissioning and must include removal of all overhead electrical equipment, transformers, and structures associated with operations of the facility except those associated with interconnecting to the electric grid. All underground components must be removed to a depth of 24 inches, and foundations must be removed to a depth of 36 inches. Sites must be reclaimed to the approximate original surface topography, and reseeded or revegetation is required to prevent adverse hydrological effects.

FINANCIAL ASSURANCE

Each facility must provide a decommissioning bond within one year of the initiation of commercial operation.¹⁰² The preliminary bond amount will be determined by the state Department of Environmental Protection in consultation with the facility owner.



¹⁰⁰ [W. Va. Code R. § 60-11-4](#)

¹⁰¹ [W. Va. Code R. § 60-11-5](#)

¹⁰² [W. Va. Code R. § 60-11-7](#)

Wyoming

**Statewide / Local
Hybrid**

Policy Model

#43

SEIA State Solar
Capacity Rating

149 MW

Total Installed Solar
Capacity

LAW: Wyoming Statutes Annotated 18-5-501¹⁰³, 18-5-503¹⁰⁴, 35-12-102¹⁰⁵, 35-12-105¹⁰⁶

DECOMMISSIONING RULES

Statute requires the submittal of a waste management plan by the owner or developed of the facility in order to obtain permitting, with the waste management plan requiring a proposed disposal program for the eventual decommissioning of said facility. In order to obtain a permit, a facility must also provide a site and facility reclamation and decommissioning plan that includes the planned facility life and the various ways that the site and facility will be restored and decommissioned properly. The restoration and decommissioning plan must be updated every five years until the site has been completely restored and the facility deconstructed. The plan must comply with the state's Industrial Siting Council's requirements, which preempt local government rules regarding decommissioning and reclamation for certain facilities; this includes solar facilities that have a capacity of more than 30 MW (includes any facility expansions). The plan requirements also impact commercial solar facilities with a rated power capacity of more than 500 kW, which includes all land parcels that the project owner has the rights to construct a facility, including land used for battery storage. However, the provisions regarding a facility between 500 kW and 30 MW do not preempt local government regulations.

FINANCIAL ASSURANCE

Not required.

¹⁰³ [Wyoming Statutes Annotated 18-5-501](#)

¹⁰⁴ [Wyoming Statutes Annotated 18-5-503](#)

¹⁰⁵ [Wyoming Statutes Annotated 35-12-102](#)

¹⁰⁶ [Wyoming Statutes Annotated 35-12-105](#)

Trends & Concluding Thoughts

Through examination of recent legislative changes and the array of current decommissioning requirements, several trends emerge. It is clear that more states are gradually administering decommissioning rules, some starting the rule process by initially studying solar decommissioning before introducing legislation (as in the case of the Carolinas^{107,108}). In 2023, at least a dozen states had legislative actions related to solar decommissioning, with the Southeast showing the most activity, as Arkansas, Kentucky, and North Carolina each passed laws mandating statewide decommissioning requirements and/or financial assurance. However, Arkansas quickly amended its statewide requirements, removing any mention of decommissioning.

Generally, rules require the decommissioning process for solar projects to begin within a year of the facility ceasing commercial operations or being abandoned. Many rules explicitly require project owners to restore the project site to its pre-construction state. Most statewide policies include some sort of provision requiring financial assurance with several options to choose from, usually a bond, insurance, or guarantee. Decommissioning rules typically apply to large-scale solar facilities, and a number of states, including Connecticut, Hawaii, Illinois, and Michigan, specifically mandate decommissioning plans and assurance for solar facilities built on agricultural or forest lands. At present, state policies only explicitly mention greenfield-type development for these requirements. Brownfields, landfills, and recovered areas are not explicitly mentioned when reviewing state decommissioning policies; application of rules to these site types is uncertain. Additionally, a number of states (e.g. Vermont, North Dakota, New Hampshire, etc.) do not allow for the salvage value of assets to be included and/or subtracted from decommissioning cost estimates.

As solar power continues to grow, particularly at the utility-scale, states and localities have the opportunity to set processes and expectations for developers to follow regarding how to treat their facilities at the end of their functional life. Restoration of lands used for solar, especially on productive agricultural lands, is a cross-cutting concern. Developing clear rules for how to treat the sites, or allowing negotiated restoration with localities and landowners, can often create the best results. Financial assurance is seen as a key tool in making sure that decommissioning plans are implemented. A phased approach, where percentages of the financial assurance for estimated decommissioning cost are due at different periods over the first five to ten years of a project's operation, can be less onerous to facility owners while still offering security to landowners for restoration – as mandated in Michigan and Indiana already. Additionally, periodic revisits over the functional life of projects can ensure that financial security remains sufficient until the decommissioning process begins. Moreover, to reduce the possible pushback and animosity towards future solar projects, regularly requiring solar project owners and developers to notify nearby communities of any decommissioning policies and processes that they are required to follow may help build the critical and transparent communication channels between communities, local governments, landowners, and project developers/owners early in the process before decommissioning takes place.

¹⁰⁷ [Final Report on the Activities Conducted to Establish a Regulatory Program for the Management and Decommissioning of Renewable Energy Equipment \(January 1, 2021\)](#)

¹⁰⁸ [South Carolina Department of Health and Environmental Control Solar Panel Stakeholder Group](#)