50 States of Solar Decommissioning

Vincent Potter, Policy Analyst
NC Clean Energy Technology Center
Energy & Mineral Law Foundation Fall Symposium, October 12, 2023
NC Clean Energy Technology Center

- UNC System-chartered public service center
- Advance a sustainable energy economy
  - Education, demonstration, policy support
- Objective research & analysis - no advocacy
- Database of State Incentives for Renewables and Efficiency – www.dsireusa.org
Resources

● DSIRE Insight
  ○ Pending, proposed, in-progress policy tracking
  ○ Solar/DER, Grid Mod, Decarbonization, EV
  ○ Forthcoming whitepaper

● NREL Decommissioning Tracking

● Lewis Roca Renewables Policies
What are we covering?

1. Decommissioning landscape and overview

2. Updates and notables

3. Policy review of selected markets in the U.S.
   a. Relevant states east of the Mississippi

4. Trends and concluding thoughts
Decommissioning - Typical

- Remove generation equipment
- Remove buried components (2' to 3')
- Stabilize/restore soil, grade, vegetation
- Interconnection equipment can remain
Financial Assurance - Examples

- Bond
- Irrevocable letter of Credit
- Parent Company Guaranty
- Collateral or satisfactory negotiated instrument
Notable 2023 Legislative Updates

- KY (HB 4)
- PA (SB 211)
- IL (HB 4412)
Notable Policy Models

• Focus on agricultural lands
  □ CT, HI, IL, MI, NJ

• MA - optional state developed model ordinance

• WA - optional decommissioning policy
California

- Installed Solar Capacity: 41,675 MW
- Plans to the locality & CA Dept. of Conservation
- Assurance must be resubmitted every 5 years
Texas

- Installed Solar Capacity: 18,801 MW
- Private facilities after September 2021
- Revised cost estimate at 10th anniversary
  - Every 5 years thereafter.
Connecticut

- Installed Solar Capacity: 1,307 MW
- Projects 2 MW+ on Prime Farmland or Prime Forestland
- Assurance required for Farmland
  - Possibly Forestland (needs clarification)
North Carolina

- Installed Solar Capacity: 8,549 MW
- Sites with capacity 2 MW+
- Local requirements may be more stringent
- Renew assurance every 5 years
Virginia

- Installed Solar Capacity: 4,393 MW
- Decommissioning agreements with localities
- Site restoration and soil stabilization
- No specific financial assurance rules
Illinois

- Installed Solar Capacity: 2,212 MW
- Facilities over 500 kW on Ag land
- Cost reevaluation + new plan at 10 years
Indiana

- Installed Solar Capacity: 1,654 MW
- Removal/restoration to 36"
- Phased assurance: 0, 5, 10 years
- Cost reevaluation every 5 years
Ohio

- Installed Solar Capacity: 1,389 MW
- 12 months to decommission/restore
- Performance bond updated every 5 years.
Tennessee

- Installed Solar Capacity: 906 MW
- Removal/restoration to 36"
- Phased assurance: 0, 10, 15 years
- Local rules: no more stringent than state rules
Kentucky

- Installed Solar Capacity: 165 MW
- Removal/restoration to 36"
- Interconnection not part of decommissioning
- Local rules: can supersede state rules
West Virginia

- Installed Solar Capacity: 33 MW
- Exemption for facilities under 1 MW
- Removal/restoration to 36"
- Decommissioning Bond within 1 year of COD
Trends & Concluding Thoughts

● Target lands/sites
● Consistent Application
● Sizing carve-outs
● Periodic review/re-evaluation