

Renewable Portfolio Study (HB1414) Update

November 15, 2017

Susan Gray

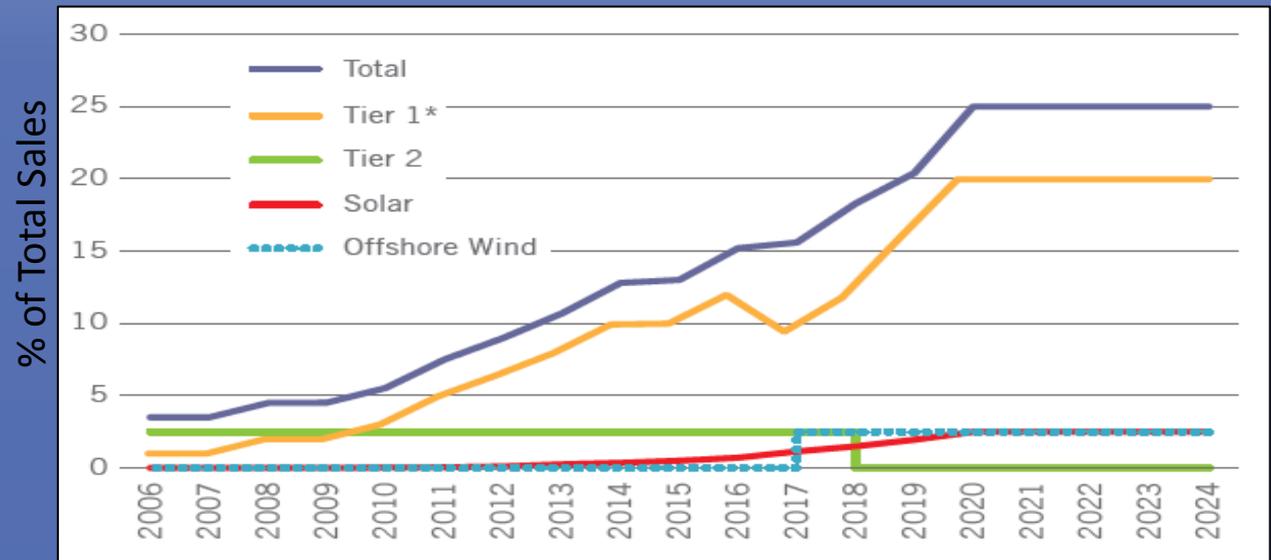
Maryland Department of Natural Resources
Power Plant Research Program

Maryland's RPS



Electricity suppliers demonstrate compliance with Maryland's Renewable Portfolio Standard (RPS) by accumulating renewable energy credits (RECs) based on their retail sales

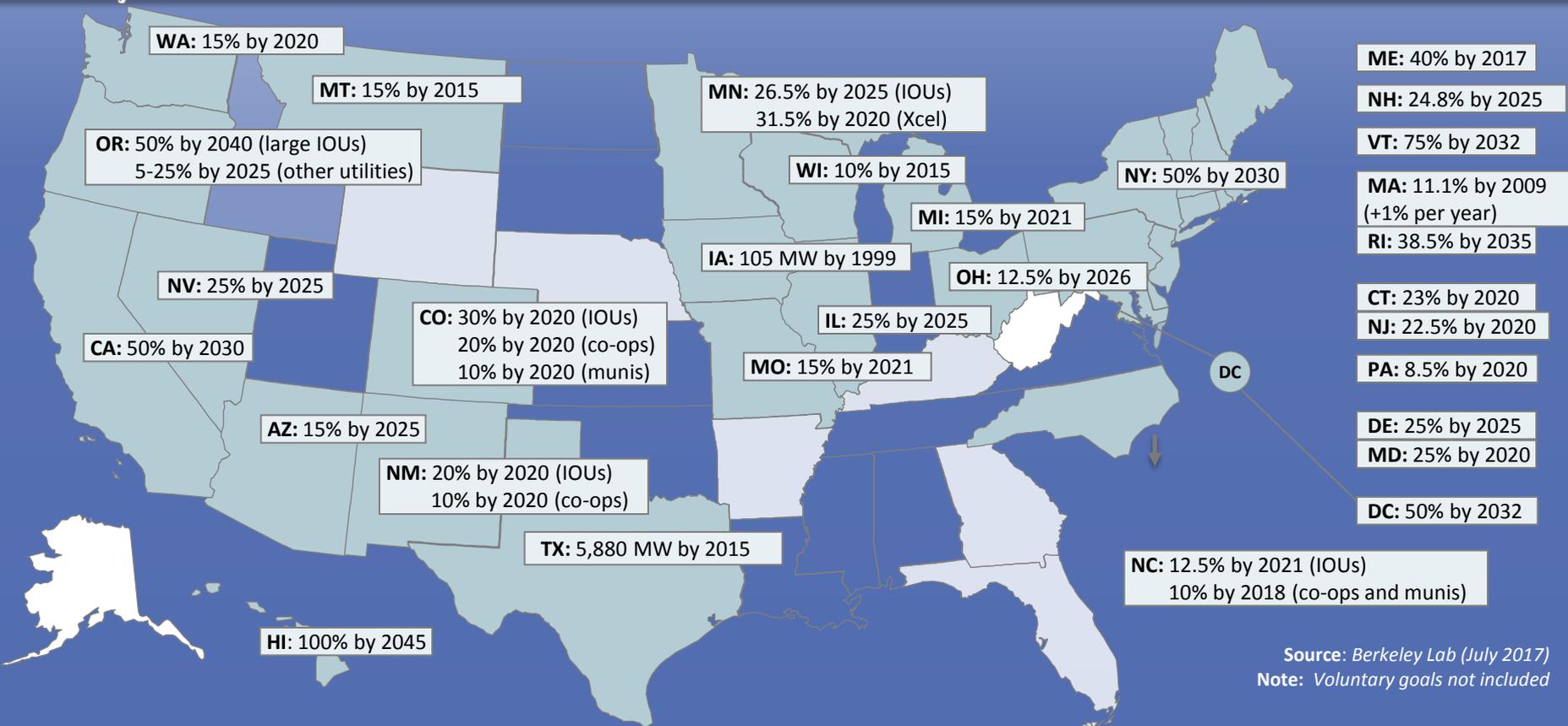
Maryland RPS Requirements



*Does not include solar or offshore wind

Source: PPRP

RPS Policies Exist in 29 States and DC Apply to 56% of Total U.S. Retail Electricity Sales



Source: Berkeley Lab (July 2017)
Note: Voluntary goals not included

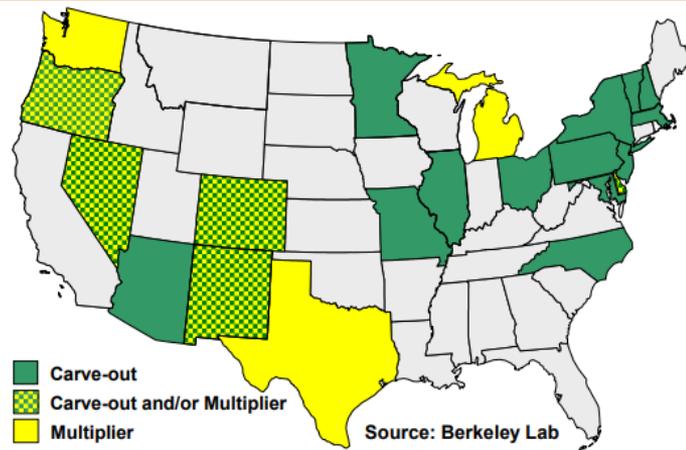
RPS Policies and Rules Are Not Uniform



Major Variations Across States

- Targets and timeframes
- Entities obligated and exemptions
- Eligibility rules related to technology, vintage, location, and deliverability – Use of resource tiers, carve-outs, or multipliers (e.g., see map)
- REC definitions, limitations, and tracking systems
- Contracting requirements or programs
- RPS procurement planning/oversight
- Compliance enforcement methods, reporting, and flexibility rules
- Existence and design of cost caps, alternative compliance payment rates

Solar or Distributed Generation (DG) Carve-Outs and Credit Multipliers



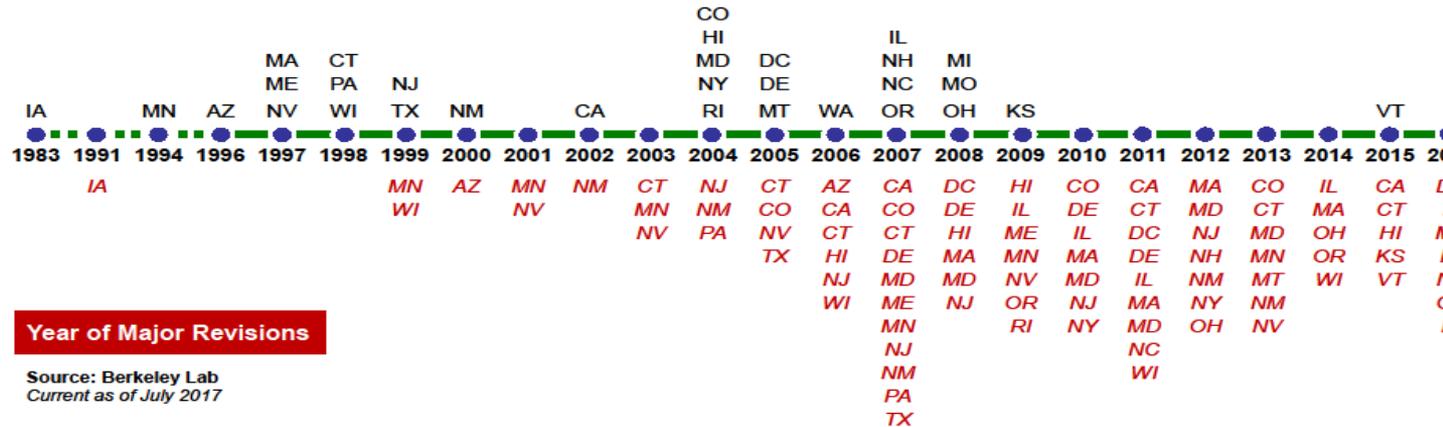
18 states + D.C. have solar or DG carve-outs, sometimes combined with credit multipliers; 3 other states only have credit multipliers

Source: Berkeley Lab (July 2017)

Most RPS Policies Have Been in Place for at Least 10 Years

States continue to make regular and significant revisions

Year of RPS Enactment



Year of Major Revisions

Source: Berkeley Lab
Current as of July 2017

HB1414



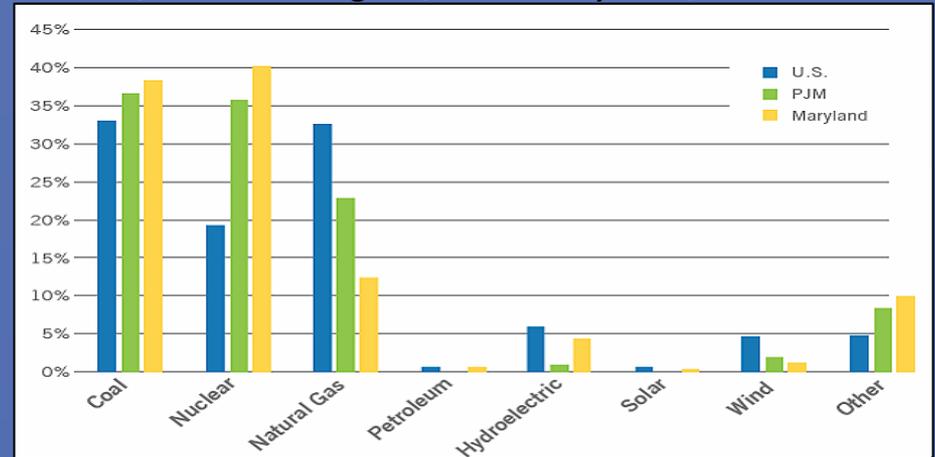
- “PPRP shall conduct a study of the RPS... The study shall be a comprehensive review of the history, implementation, overall costs and benefits and effectiveness of the RPS in relation to the energy policies of the state.”
- Interim / Final Report due December 1, 2018 / 2019 to Governor, Senate Finance Committee, and House Economic Matters Committee

Subjects to be Addressed

The role and effectiveness that the standard may have in reducing the carbon content of imported electricity and whether... complementary policies or programs could help address carbon emissions associated with electricity imported into the State.

In 2015, Maryland imported
44% of its electricity

Electric Generation by Fuel Type for the United States, the PJM Region, and Maryland, 2015



Source: EIA

Subjects to be Addressed



The net environmental and fiscal impacts that may be associated with long-term contracts (LTCs) tied to clean energy projects including... ratepayer impacts... and whether the use of LTCs incentivized new renewable energy generation development.

- In competitive states RECs are typically sold separately from electricity via spot-market transactions or short-term contracts
- Long-term contracting shifts some RECs into longer-term, bundled power purchase agreements

Source: LBNL

Subjects to be Addressed



What industries are projected to grow, and to what extent, as a result of incentives associated with the standard

Whether the public health and environmental benefits of the growing clean energy industries supported by the standard are by equitably distributed across...
environmental justice communities

Subjects to be Addressed



System flexibility that the State would need under future goals... including the quantities for peak and ramping that may be required

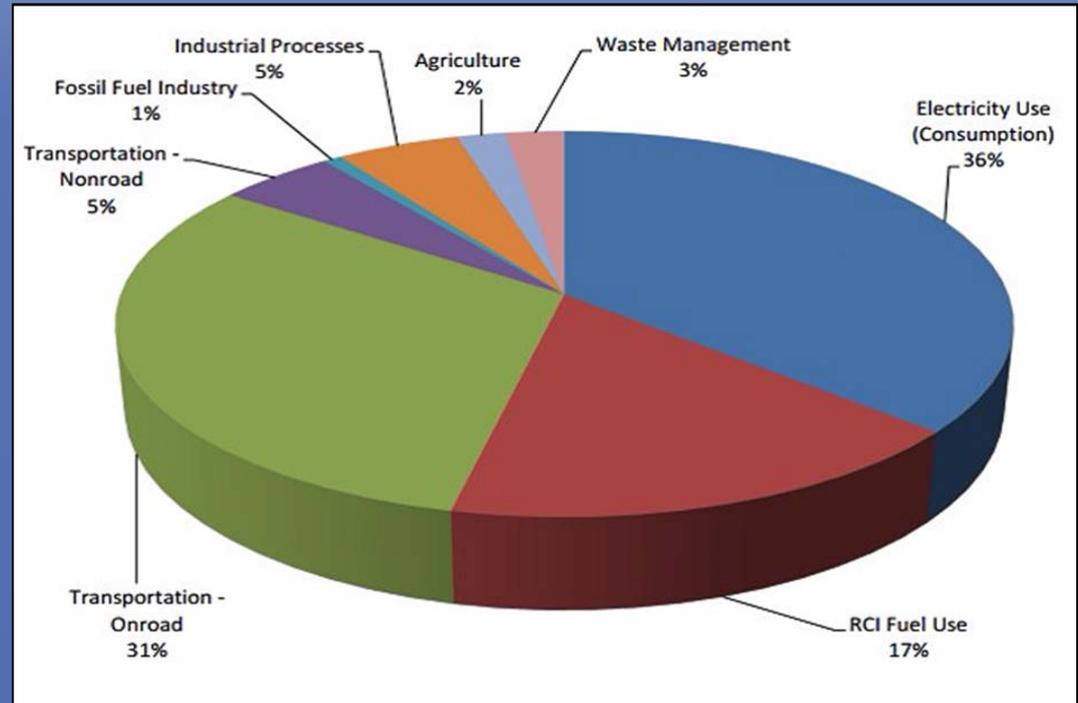
Additional opportunities that may be available to promote local job creation within the industries that are projected to grow as a result of the standard

An assessment of any change in Solar REC prices over the immediate 24 months preceding the Interim Report

Subjects to be Addressed

The role of in-State clean energy in achieving greenhouse gas emission reductions and promoting local jobs and economic activity

Maryland 2014 GHG Emissions by Sector



Subjects to be Addressed – Work in Progress



Whether the State is able to meet current and potential future targets without the inclusion of certain technologies.

Whether the State is likely to meet its existing goals... and if the State were to increase those goals, whether electricity suppliers should expect to find an adequate supply to meet the additional demand for credits.

How energy storage technology and other flexibility resources should continue to be addressed.

RFP for the RPS



**Maryland Department of
Natural Resources**

**Request for Proposals
Solicitation RFP**

Issue Date: [October 13, 2017](#)



**Power Plant Research Advisory
Council (PPRAC)**

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Request for Proposals

Technical Assistance in Economic Studies –
Maryland Renewable Portfolio Standard

Deadline: November 28 at 2pm



Quick Links

- [Cumulative Environmental Impact Report Web Pages](#)
- [Cumulative Environmental Impact Report Summary](#)
- [Electricity Fact Book](#)
- [Long-Term Electricity Report](#)
- [Bibliography](#)

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11/1/2017

Schedule



- RFP Bids due: 11/28/2017
- Draft report on Tasks 1 and 2: mid January 2018
- Kickoff meetings of the PPRAC RPS WG: mid to late January 2018 (review of draft report on Tasks 1 & 2)
- Contract approved by the Board of Public Works: early March 2018
- Interim report due: 12/1/2018
- Final report due: 12/1/2019

Questions?

