

New Initiative



HB 1414 / SB 1146 Renewable Portfolio Standard Study

Presentation Purpose

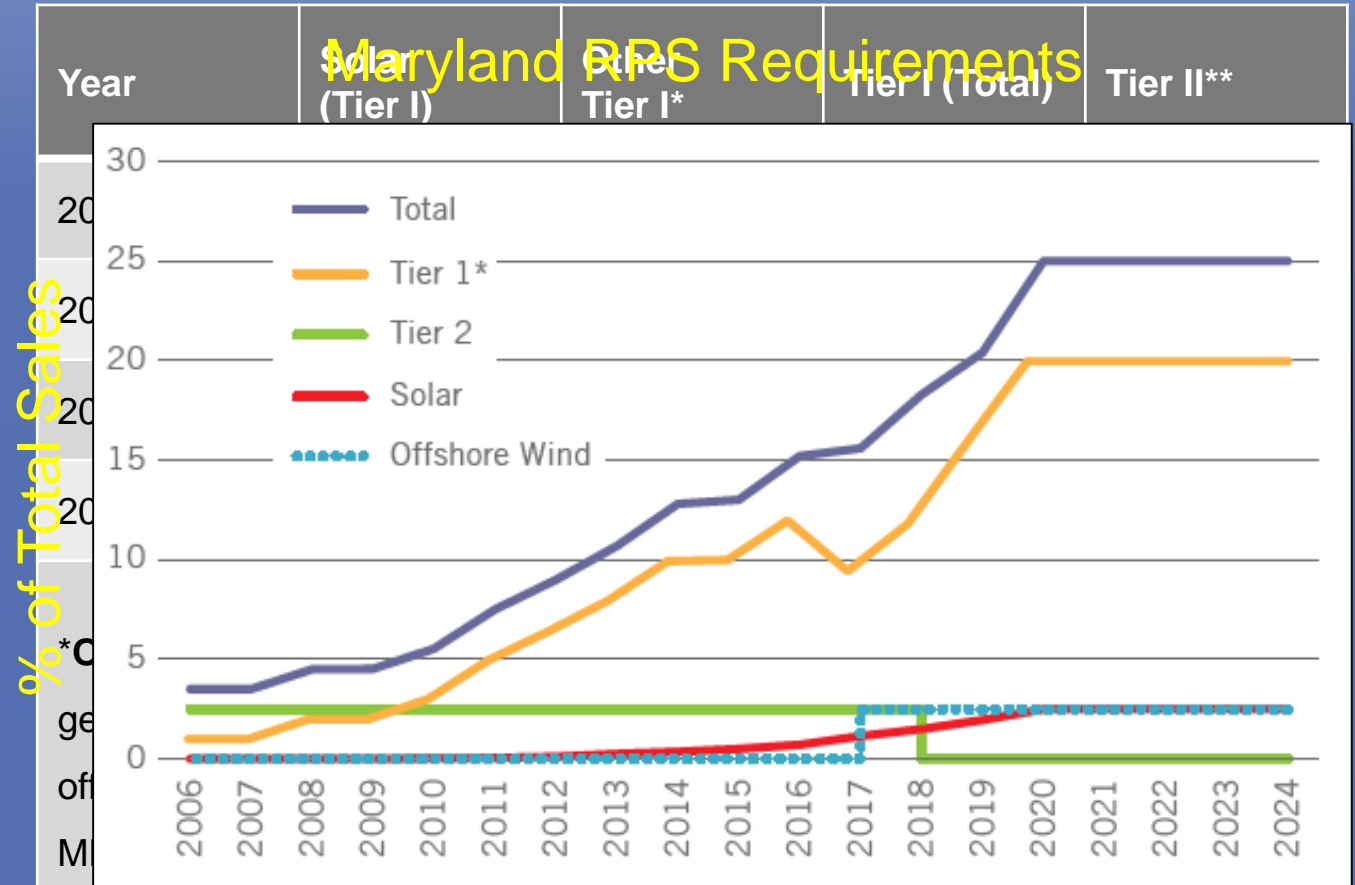


- Background – Today's RPS -- RPS Policies and Renewable Energy Generation
- 2017 Legislation - HB 1414 / SB 1146
Overview
- Next Steps

Maryland's RPS

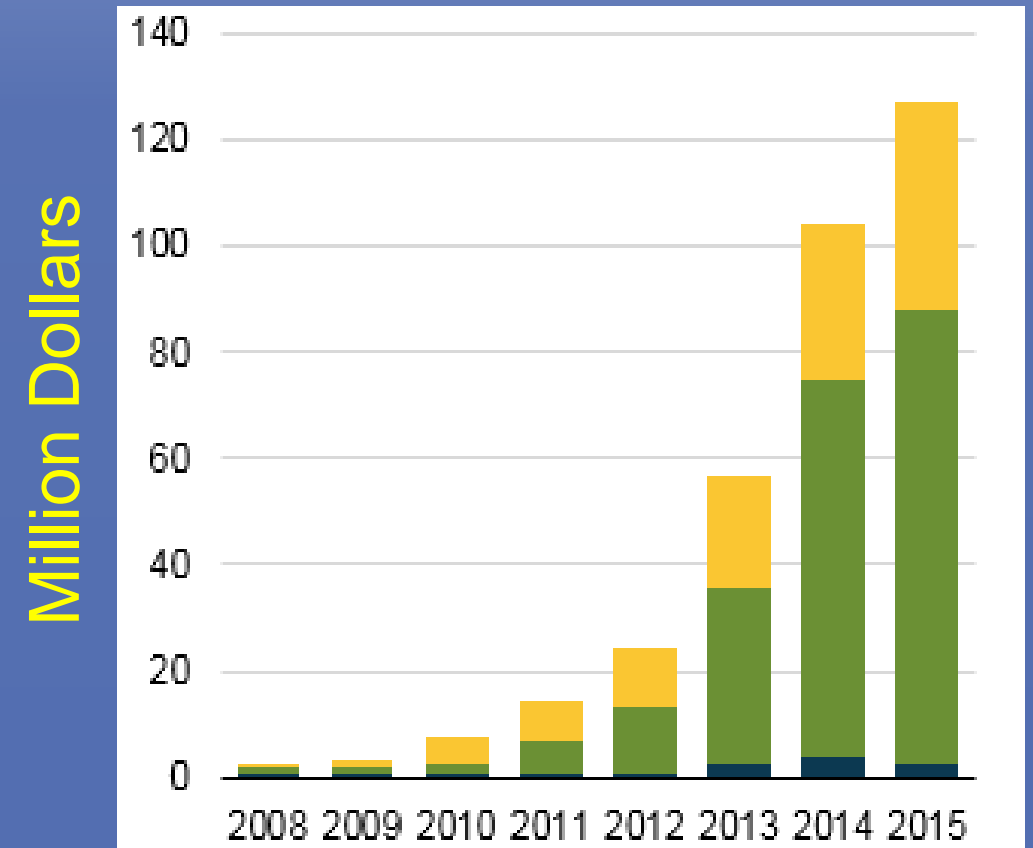
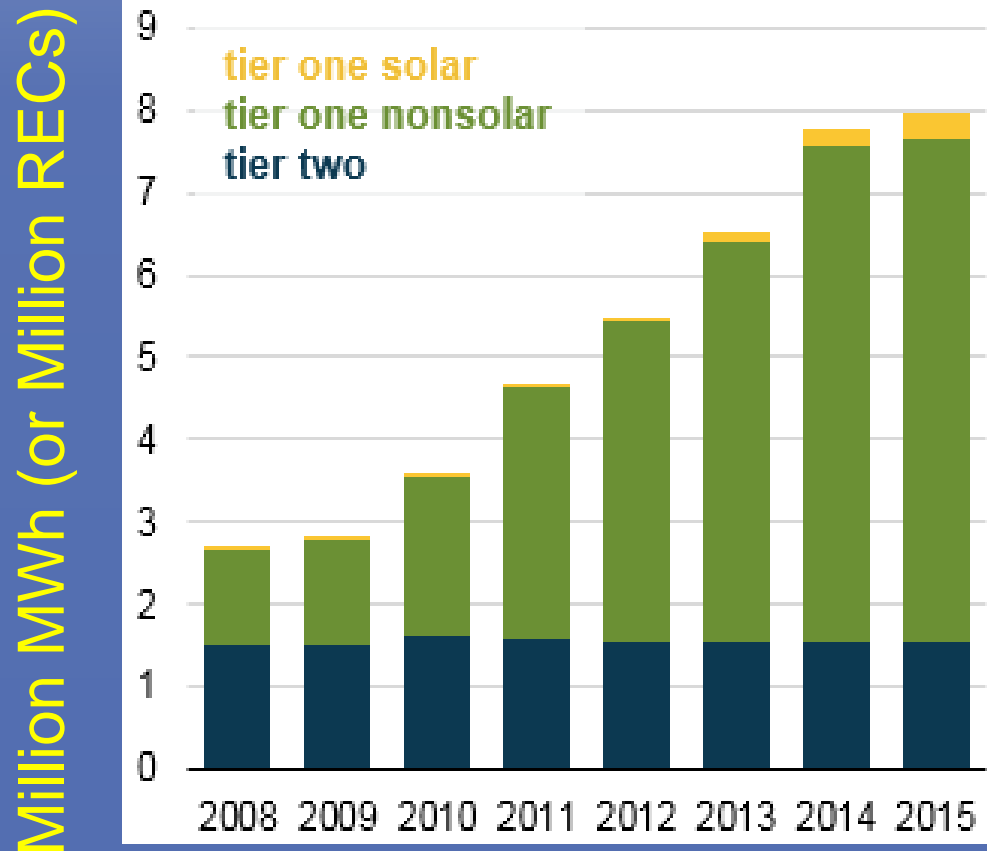


- Electricity suppliers demonstrate compliance with Maryland's Renewable Portfolio Standard (RPS) by accumulating renewable energy credits (RECs) equivalent to the percentages of their retail sales shown at right



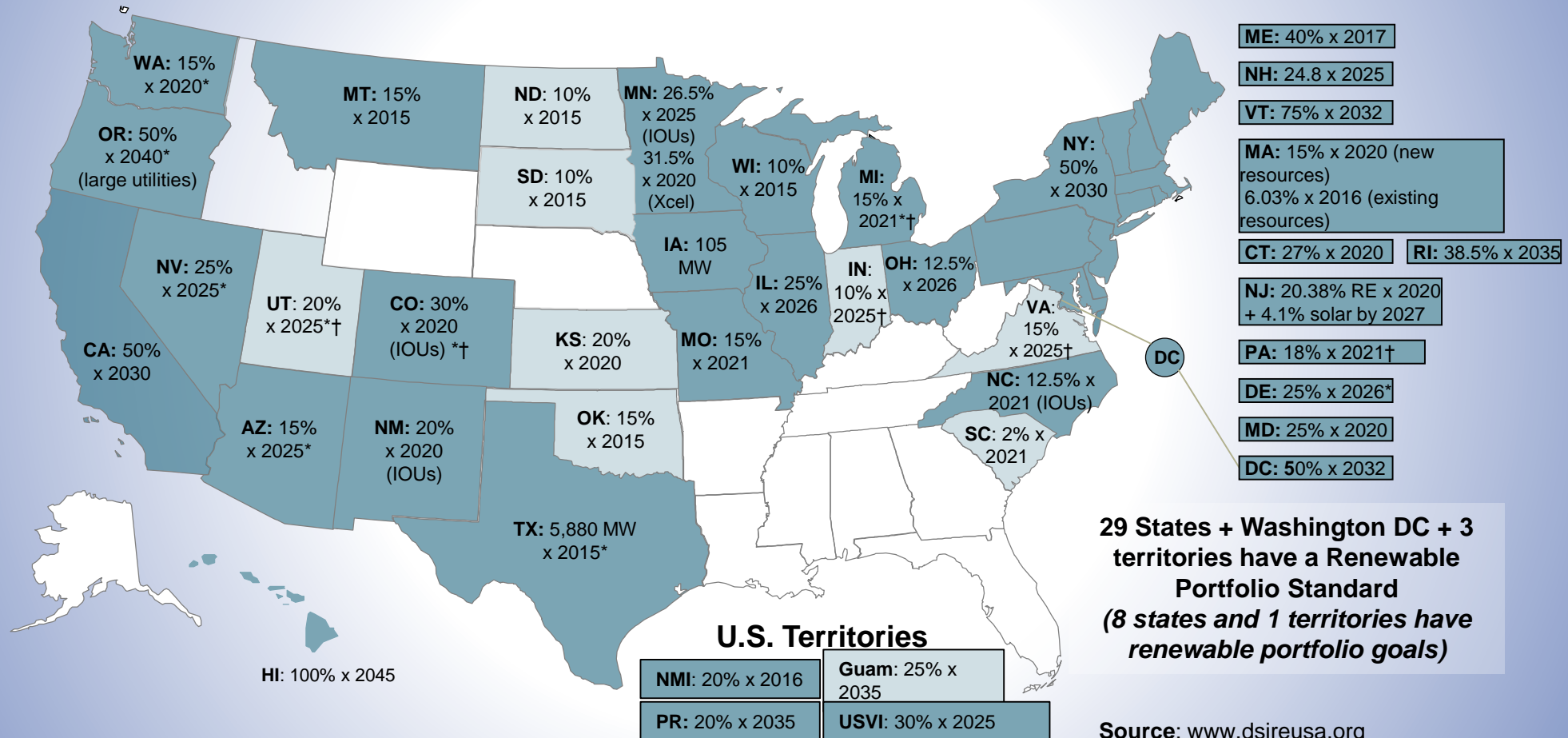
**Tier 2 includes: hydro other than pump-storage

Maryland's RPS Compliance Credits and Costs



Source: EIA based on MD PSC

Other RPS Policies



29 States + Washington DC + 3 territories have a Renewable Portfolio Standard (8 states and 1 territories have renewable portfolio goals)

Source: www.dsireusa.org
February 2017

Renewable portfolio standard
 Renewable portfolio goal

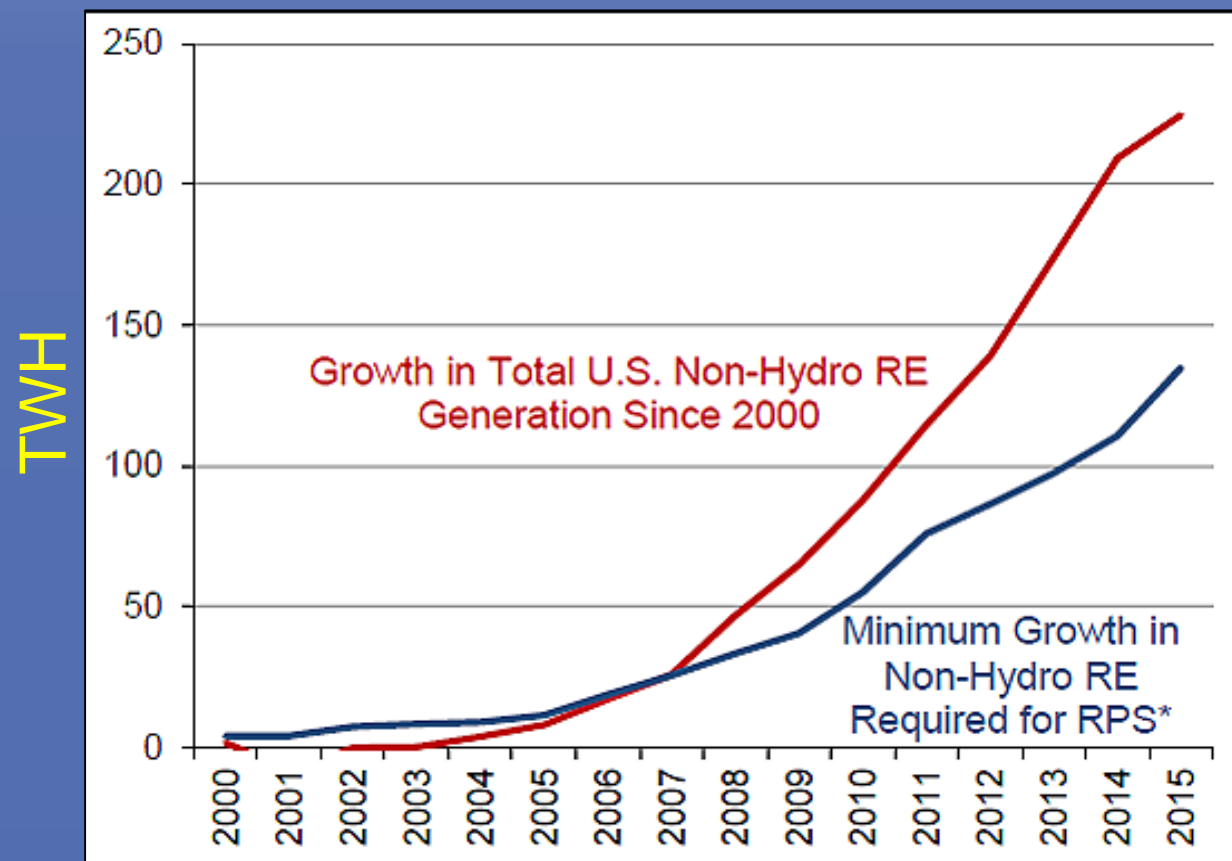
† Extra credit for solar or customer-sited renewables
 * Includes non-renewable alternative resources

RPS Policies as Drivers of Renewable Generation



- 60% of all growth in renewable energy (RE) generation since 2000 was required by RPS policies
- Additional drivers include: voluntary green power markets, accelerated RPS procurement, and economic purchases

Growth in Total U.S. Non-Hydro Renewable Energy Generation Since 2000



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Study's Purpose



- “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
 - House Economic Matters Committee

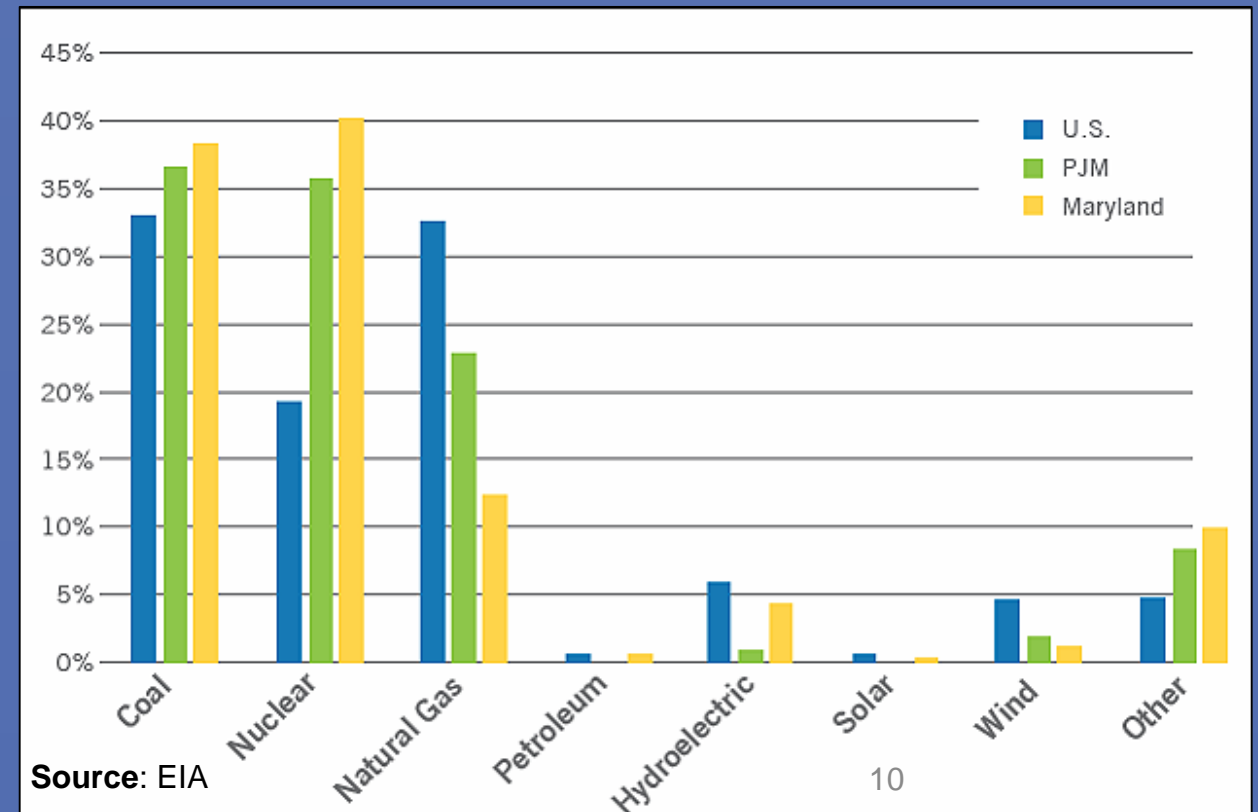
Subjects to be Addressed



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



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 incentivize 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

Subjects to be Addressed



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

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 equitably distributed across... **environmental justice communities**

Subjects to be Addressed



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

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

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

Subjects to be Addressed



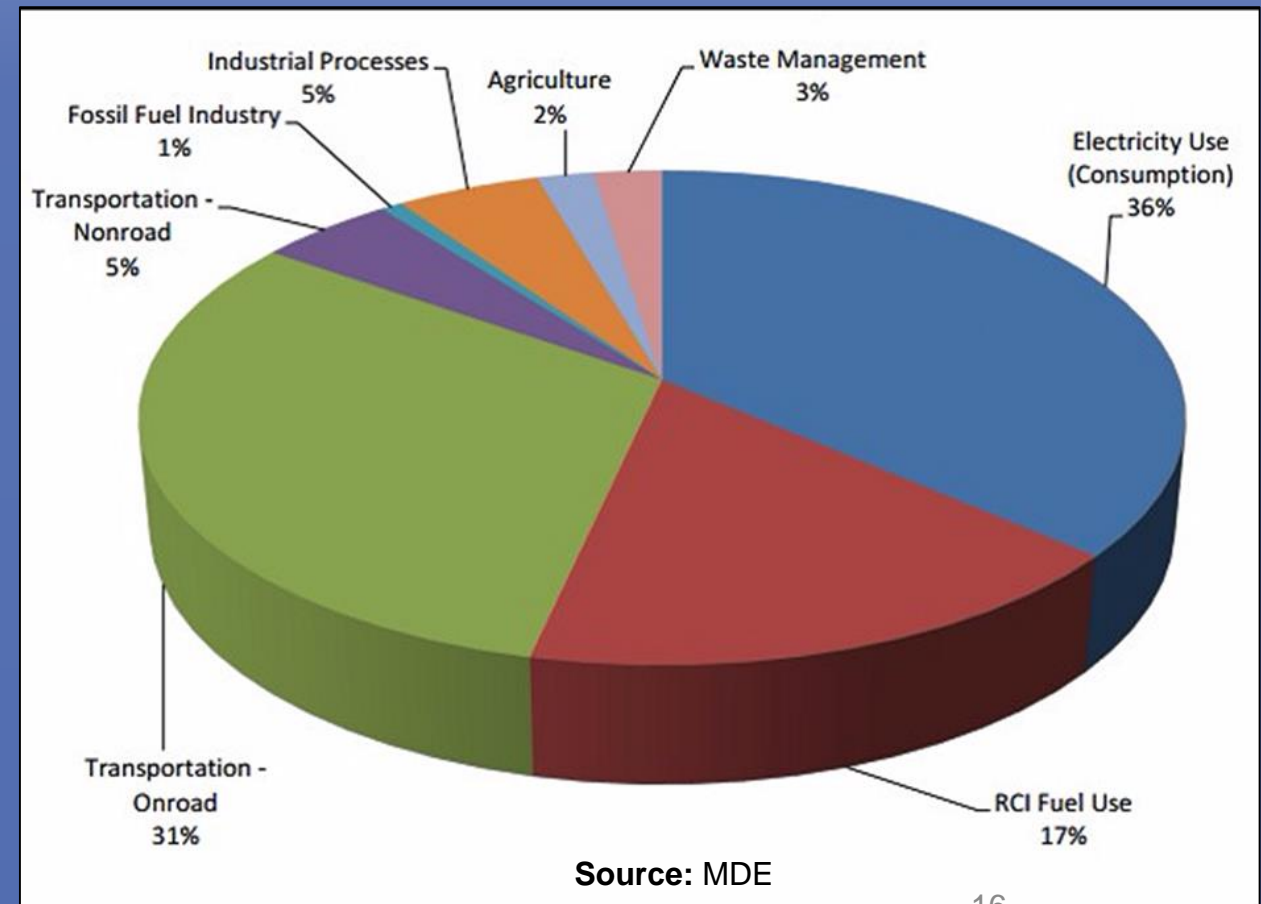
How energy storage technology and other flexibility resources should continue to be addressed... including:

- (I) Whether the resources should be encouraged through a procurement, a production, or an installation incentive
- (II) The advisability of providing incentives for energy storage devices to increase hosting capacity of increased renewable on-site generation on the distribution system
- (III) Discussion of the costs and benefits of energy storage deployment in the State under future goals scenarios

Subjects to be Addressed

Maryland 2014 GHG Emissions by Sector

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

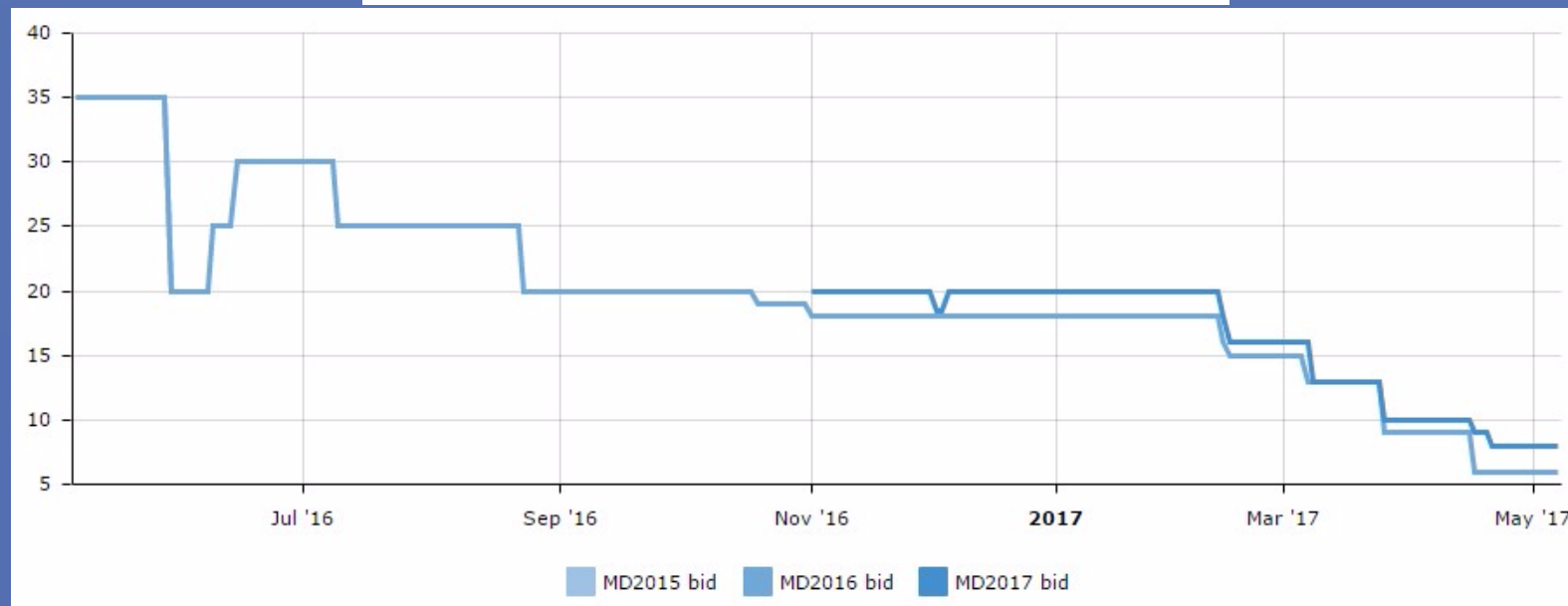


Subjects to be Addressed



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

Bid Prices for Maryland, Last 12 Months



Source: SREC Trade

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General Approach and Next Steps



- Study is still in the planning stage
- Report outline is currently being developed
- Analysis

Do the right thing; it will gratify some people and astonish the rest.
- Mark Twain

the *Long-term Electricity Report for Maryland (LTER)*

PPRAC Involvement



- Seeking PPRAC Initial Thoughts Today
- Initiating a PPRAC Members/Participants Working Group representing all interested stakeholders to provide input and feedback throughout the RPS Study development process
 - Provide input on study strategy
 - Provide feedback on study progress
 - Review draft text
 - Additional input as desired by members
- Utilizing webinars and piggybacking PPRAC meetings

Questions?

