

Moving Maryland to 100% Clean Electricity

Maryland Commission on Climate Change – Mitigation Work Group

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Agenda

100% Clean Electricity for All

Why do we care?

National Trends & Momentum

Maryland

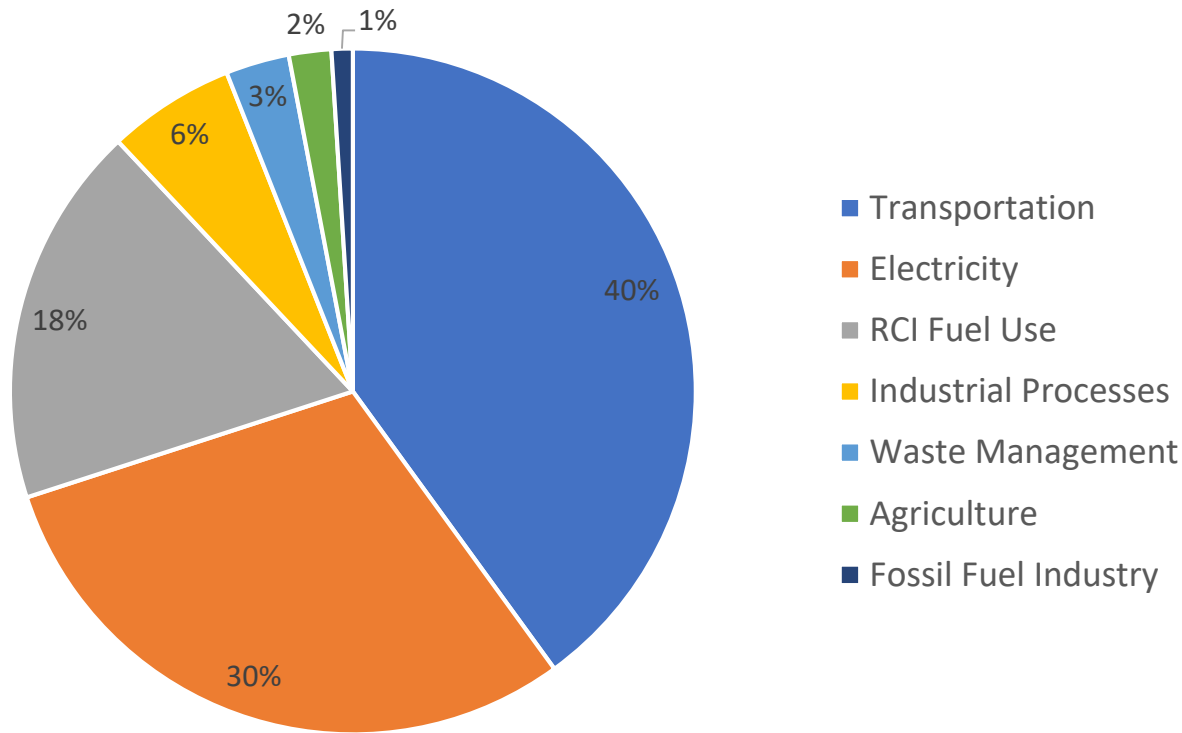
Maryland Status Check

Important Considerations

Proposed MCCC Actions

Clean Electricity is the Lynchpin to Climate Action

2017 MD GHG Emissions



“Achieving 100% clean electricity is an essential part of the economy-wide decarbonization and electrification strategy as it will not only reduce emissions from Maryland power plants, but also provide carbon-free energy to decarbonize the buildings and transportation sectors by replacing fossil-powered systems with electric systems that run on increasingly clean and renewable electricity.”

- MDE 2030 GGRA Plan

Parameters Policy Makers Typically Consider

- **Is the timeline for 100% clean renewable electricity in line with the necessary response to the climate crisis?**
- **In-state generation vs. total consumption**
 - How do you influence and/or account for the pollution associated with imported power?
- **What qualifies as clean, renewable energy? ****
 - IPCC definition?
 - Maryland's current RPS definition?
 - Nuclear?
 - Carbon capture technologies?

“The General Assembly should set for a 100 percent clean energy by 2040 plan to ensure Maryland’s electricity is made up of electricity with zero or net zero carbon emissions, and that is focused on providing the benefits of clean energy to overburdened and underserved communities first.”

- Maryland Commission on Climate Change

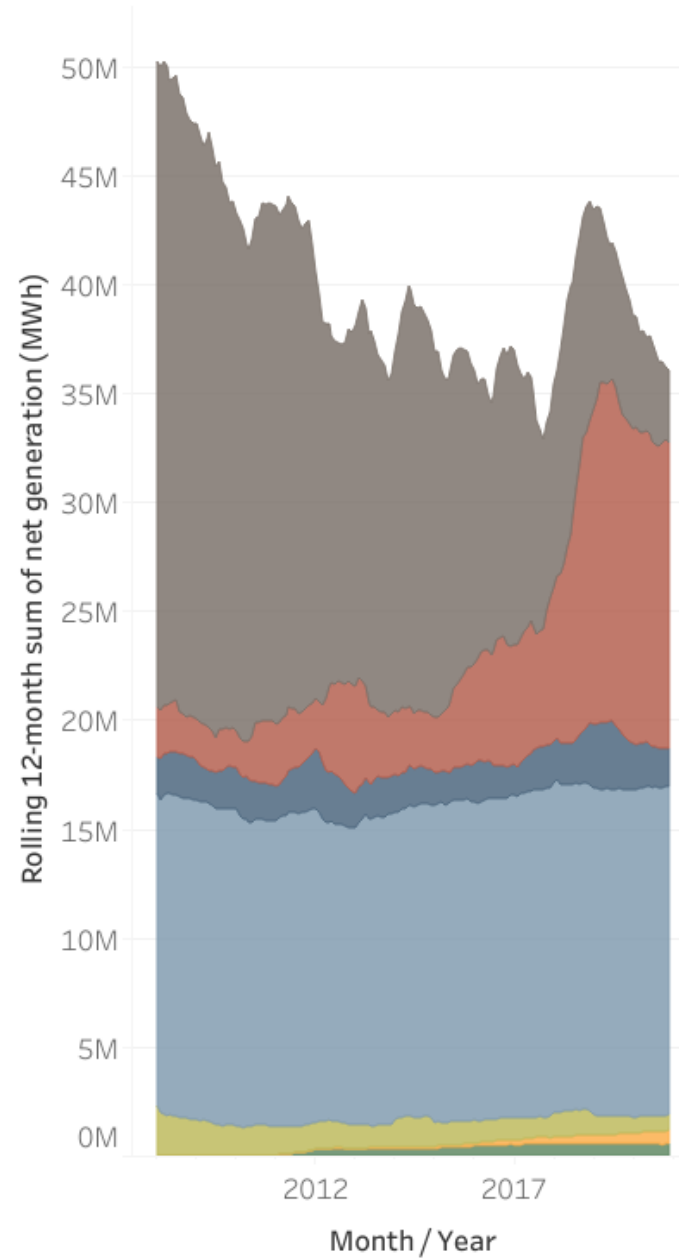
Existing Maryland Policies & Programs

- Clean Energy Jobs Act
 - 50% by 2030 RPS containing a 14.5% in-state solar carve-out and ~1600 MW of Offshore Wind
- Offshore Wind Energy Act
- Regional Greenhouse Gas Initiative
- MEA Grants & Programs
- And more

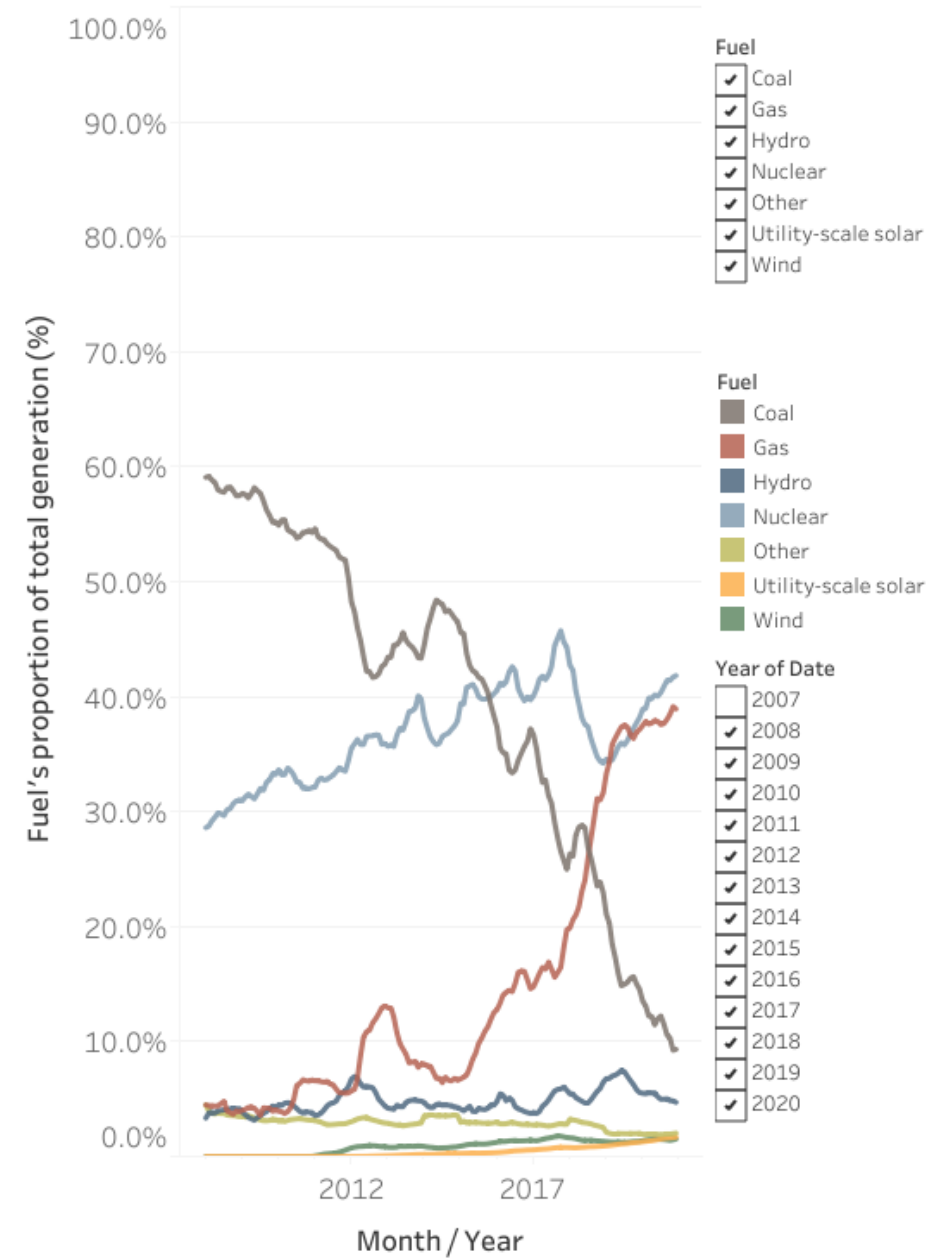


Maryland In-State Generation

Net generation by fuel



Percent of net generation



Ongoing Challenges

Renewable energy siting

- Local policies and project-level opposition
- Lengthy review and permitting processes
- Some ongoing efforts at the Public Service Commission to address CPCN delays – is that enough?

Federal delays and lack of leadership

- Federal delays behind offshore wind project reviews are likely one contributing factor to the delays for Maryland's offshore wind projects

Are updates to MD RPS accelerating or reducing demand for clean electrons?

- Removal of black liquor RECs
- Addition of new thermal resource demands in the RPS reduce the demand for RECs associated with electricity-generating solar and wind
- Reduced near-term solar carve out

Critical Considerations

CARES

- Establishes a 100% target and pathway and modeling shows large solar growth
- But creates incentives for resources that are not clean nor renewable and 2040 is 5 years later than Biden administration's target

Equitable Distribution of Benefits

- Do the 100% programs and policies prioritize new clean energy capacity, high-quality jobs, and relevant health and economic benefits in communities that have borne the brunt of fossil fuel pollution?

Strategic and Long-Term Planning

- Implementation of best practices from GGRA Plan Appendix I – Just Transition for fossil fuel and aging power plants
- Geographically-targeted clean energy deployment to allow for fossil plant transition

Ensuring new solar and wind construction

- REC market in PJM helped kick-start the industry but, to meet the scale of the climate crisis and ensure new clean energy is built, MD should consider long-term contracts for RECs and electricity with new clean energy projects

Potential MCCC Actions



Call for Federal Action

The MCCC should consider publicly providing its support for federal action and leadership to create a 100% clean electricity by 2035 policy and implementing programs.



Recommend a state moratorium on new fossil-fuel power plants

The MCCC should recommend that Maryland not approve the construction of any new fossil-fuel power plants in the state.



Recommend greater commitments to Offshore Wind

Maryland has fallen behind other Mid-Atlantic and Northeastern states in its commitments to offshore wind, putting economic development opportunities at risk.



Recommend robust clean energy (i.e. solar/wind) + storage incentive programs

The MCCC should recommend that Maryland establish adopt and implement utility-scale clean energy + storage programs to replace fossil fuel generators.

Summary

Having a 100% clean electricity target is critical but Maryland officials need to be sure that:

- 1. It is ambitious enough to meet the climate crisis (i.e. 100% clean electricity by 2035)**
- 2. It prioritizes investments and benefits in communities traditionally underserved and most overburdened by historic fossil fuel pollution**
- 3. It creates local, high-quality, family-sustaining, union jobs**
- 4. The state and local jurisdictions can actually implement the program(s)**

Resources

- International Energy Agency**
 - <https://www.iea.org/news/pathway-to-critical-and-formidable-goal-of-net-zero-emissions-by-2050-is-narrow-but-brings-huge-benefits>
 - <https://www.iea.org/reports/net-zero-by-2050>
- Princeton Net Zero Study**
 - https://netzeroamerica.princeton.edu/img/Princeton_NZA_Interim_Report_15_Dec_2020_FINAL.pdf
- Sierra Club's Ready for 100 Campaign
 - <https://www.sierraclub.org/ready-for-100/map?show=committed>
- Photo Credit on slide 7 to US Wind via Maryland Matters:
<https://www.marylandmatters.org/2021/06/02/windsofchangesourceofpowerandstruggle/>

**Links to the IEA and Princeton studies do not equate to endorsement of all analysis or conclusions contained within the reports