

September 7, 2018

Bob Sadzinski Power Plant Siting Assessor Power Plant Research Program Maryland Department of Natural Resources 580 Taylor Avenue, Tawes State Office Building Annapolis, MD 21401

Re: Comments on draft SWOT analysis of 50% RPS

Dear Mr. Sadzinski,

We appreciate the opportunity to comment on the draft SWOT analysis of a 50% RPS presented on June 18, 2018, to the Maryland Renewable Portfolio Standard (RPS) Study Work Group.

We have four areas of concern about the draft SWOT analysis.

1. The SWOT does not focus on working group's mission

The RPS working group was formed to evaluate the effectiveness of the existing RPS, not to determine the impact of merely extending the existing RPS. By focusing on the effects of extending the existing RPS to 50% by 2030 without closely examining the effectiveness of the current RPS, the SWOT produces information that is only marginally useful to the working group's mission.

The RPS working group is tasked with performing "a comprehensive review of the history, implementation, overall costs and benefits of the RPS in relation to the energy policies of the state." The study is to include effects of the RPS on decreasing carbon emissions; the role of clean in-state energy on jobs and economic development; and public health and environmental effects. The SWOT analysis, which focuses on the impact of extending the current RPS and increasing the goal to 50% with no other changes, provides little of this information.

In our report, *Unbundled: How Renewable Energy Credits Undermine Maryland's Transition to Clean, Renewable Energy,* we describe how the Maryland's reliance on out-of-state unbundled RECs in the RPS undermines the state's transition to clean electricity, costs ratepayers hundreds of millions of dollars, and impedes efforts to bring transparency and predictability to Maryland's electricity sector. Understanding the usefulness of Maryland's current out-of-state unbundled REC system in meeting the statutory goals of the RPS and the effectiveness of the RPS should be a major focal point of this SWOT.

2. The LTER is not the proper basis for the SWOT

The SWOT addresses an RPS scenario that was part of the DNR's 2016 Long Term Electricity Report for Maryland (LTER). However, the LTER's purpose was not to evaluate the RPS or even discuss how it operates, and it is modeled on a very narrow set of assumptions. Using it as the basis of the SWOT produces conclusions that are misleading, incomplete and unreliable.

Consequently, the LTER is not a proper basis for modeling the effectiveness of the RPS. The LTE merely models one scenario, in which the existing RPS is extended and its target levels increased with no other changes. As a result, there is simply nothing in the LTER that speaks to the RPS working group's mission of determining how well the RPS has served Maryland.

3. The LTER's assumptions are incomplete, outdated or incorrect

The LTER's modeling assumed that increasing the RPS would not change the actual electricity mix in Maryland (aside from the in-state solar carveout) or have a meaningful effect on emissions of pollutants, including carbon emissions. The LTER based this on two key assumptions: that gas generation would always be the least-cost generation in PJM, and that the MD RPS would always be met with unbundled RECs.

The first assumption was that natural gas generation would always be the least-cost generation. The assumption was debatable at the time, and it is certainly incorrect today. Wind and solar are cost-competitive in many areas of PJM, and the cost trends continue to strengthen in favor of wind and solar. (We note that the LTER also used lower capacity factors for wind and solar than reported by industry and shorter-than-normal projected project lives. Both of these likely contributed to the undervaluing of wind and solar. In addition, while the LTER used high and low-price scenarios for natural gas, it did not do so for wind and solar.)

The assumption that natural gas would always be the least-cost new source of generation led the LTER to conclude that fossil fuels would always be selected for generation, and therefore the Maryland RPS would always be met through the purchase of unbundled RECs. This matters because if you assume gas is the cheapest electricity source, you are more likely to support an unbundled RECs regimen as offering the lowest price approach to meeting an RPS. In fact, in many instances, bundled wind contracts may well be cheaper, but the LTER did not consider this.

The assumption that fossil fuels would continue to predominate in the Maryland energy mix also leads to this statement in the report: "The scenarios based on the assumption of Maryland's adoption of a more aggressive RPS only have a minor impact on new natural gas generating capacity in PJM." (Page ES-8) Obviously this is true only if unbundled RECs remain the rule.

The LTER simply did not model lower-cost wind and solar, or consider an alternative scenario in which Maryland utilities purchased bundled energy and RECs from wind and solar projects.

The LTER thus also did not consider the impact on pollution emissions, including carbon emissions, if Maryland were to insist on RECs bundled with wind and solar energy. Displacing fossil fuels with emissions-free renewables would lower emissions of both conventional and carbon pollution. Lowering overall carbon emissions would also permit Maryland to meet RGGI targets. The LTER showed Maryland CO2 emissions consistently above RGGI targets after 2019, even under a 50% RPS. (We note that although the LTER contains a brief discussion of offshore wind, its impact on emissions is not modeled. Unlike unbundled RECs, offshore wind would displace fossil fuel use.)

Finally, the LTER modeled a scenario in which PJM states adopted an overall RPS, but did not model important changes in other states' RPS laws that affect the availability and price of RECs. One of the most important

findings in our report was that Maryland accepts RECs from sources that other states increasingly disallow. Thus, the assumption that all additional RECs in a 50% scenario would come from wind may not be true. Maryland may in fact become a place for RECs that other states don't want, as it already is for black liquor RECs.

4. Different Modeling Scenarios Needed

Given the underlying assumptions, the SWOT analysis produces results that appear unnecessarily bleak. It concludes the RPS would cost ratepayers more without lowering pollution or decreasing the use of fossil fuels in Maryland's electricity mix. For this SWOT analysis to be useful, it should model different ways the state could structure an RPS to meet a 50% RPS goal. These considerations should include the increased use of power purchase agreement, higher in-state carve out of solar and wind, greater temporal or geographic restrictions on the use of out-state unbundled RECs, and restricting or ending the presence of dirty sources in the RPS.

We appreciate the hard work your team is doing on this project, and thank you again for the opportunity to comment.

Sincerely,

Timoth White

Timothy Whitehouse Executive Director