

To whom it may concern:

We at Solar United Neighbors of West Virginia are pleased to see that serious attention is being paid to renewable energy in the new “Renewable Energy in West Virginia: Research for 5-Year Energy Plan” Draft Report. As befits our mission, our comments focus on the solar energy section of that report.

The Draft Report notes multiple recommendations from the State’s previous (2012) 5-Year Energy Plan that have not been implemented. Most notably, the West Virginia State Legislature allowed state income tax credits for solar PV installations and electric vehicles to expire. The 2012 Plan also recommended support for “community-based renewable energy activities,” which has not come to pass and indeed remains difficult to achieve in light of West Virginia’s current utility regulatory structure. Neither has a systematic review of the performance of solar PV systems installed on state and local government facilities taken place, to the best of our knowledge.

The new Draft Report reiterates its previous recommendations to review the performance of PV systems on government facilities; to maintain current policies that incentivize renewables (e.g., net metering); and to reinstate such policies that have recently expired (e.g., state-level income tax credits for solar PV installations and electric vehicles). The new Draft Report also recommends the development of surface-mined lands for solar arrays, but does not explicitly recommend support for community-based renewable energy activities such as community solar. We believe it is critical to distinguish between true community solar and utility-scale solar, the latter of which would not offer increased choice for the state’s electricity consumers outside the existing regulated market structure in which utilities maintain monopolies over their service areas.

The Draft Report’s emphasis on the state’s installed solar capacity *per capita* obscures the fact that West Virginia lags far behind most surrounding states in terms of actual deployed solar capacity. Given the regional basis of electricity markets, and West Virginia’s status as a net energy exporter, it would be more illuminating to discuss installed solar capacity, and renewable resources more broadly, within the context of the state’s overall energy production capacity. This would doubtless paint a less rosy picture of the state’s standing with regard to renewable deployment. (According to the U.S. Energy Information Administration, all renewable energy resources combined account for less than 4% of West Virginia’s net electricity generation.¹)

Page 13 of the Draft Report cites EIA Form 861 in “Table 2, Net-Metering Customers in West Virginia in 2016.” Based on annual reports submitted to the PSC by the state’s electric utility companies, the contents of Table 2 could be updated as of May 31, 2017. Also on page 13, EIA Form 861 is again cited as the source for the statement, “In 2014, 77 percent of net-metered PV capacity was in FirstEnergy’s territory.” It would be useful to have more up-to-date information on the current distribution of net-metered PV resources in the state than the 2014 numbers cited here. (Participants in our West Virginia solar co-ops alone have installed more than half a Megawatt of net-metered solar PV capacity since 2014. These installations are widely distributed throughout the state in both FE and AEP service territories.)

Page 13 of the Draft Report also mentions that summer peak load in FirstEnergy service territory may soon surpass winter peak load. Yet, elsewhere in the report (e.g., pg. 14, 29), the Report states that

¹ <https://www.eia.gov/state/?sid=WV>

West Virginia's peak energy demand is in winter. Given the stated expectation that this may soon change across FE's broad service territory, the report's suggestion that "detailed information about hourly demand usage and the growth of summer and winter demand would need to be evaluated by the utility" (pg. 13) seems inadequate. These data are crucial to accurately evaluate the benefits of solar and other distributed energy resources to the state's electricity consumers through cost savings and to its electric utilities through reduction of peak demand loads.

The Draft Report's recommendation to maintain the State's current net metering policy is somewhat undercut by the mention on pages 28-29 of the possibility of moving to a "value of solar" compensation method if the size of the net-metering customer segment becomes "too large." The phrase "too large" is overly vague and contradicts statements elsewhere in the Draft Report (e.g., pg. 8, 28) that changes to the net metering policy are unnecessary, and that the current policy should be maintained. Given these recommendations, any language suggesting that the state's net metering program size is "too large" should be struck from the text.

The Draft Report lacks any mention whatsoever of energy storage. Given the rapid pace of advances in storage technology, this increasingly feasible energy resource will play a role of mounting importance in our energy system in the coming five years. Failure to incorporate energy storage into this Draft Report's analysis may result in inaccurate valuation of intermittent renewable energy sources such as solar and wind. Moreover, ignoring the burgeoning applications of energy storage will ill serve the State of West Virginia in its strategic energy planning and economic development efforts.

The Draft Report's discussion of electric vehicle (EV) charging infrastructure makes the claim that, while West Virginia has fewer EV charging stations than other states in the region, this is less consequential here than in states with larger urban areas due to lower levels of traffic-induced pollution (p. 27). This argument fails to consider the importance of West Virginia's interstate highway corridors to long-distance traffic patterns throughout the Mid-Atlantic region and, indeed, the eastern United States as a whole. As EVs become more ubiquitous and their driving ranges expand, the location and distribution of EV charging stations in West Virginia will be of increasing importance to the nation's growing EV market.

The Draft Report's discussion of EVs also fails to consider how the driving public's transition to EVs may impact electricity demand and consumption patterns. Moreover, EVs may soon play an increasingly important role in distributed energy storage and demand response capabilities through the development of battery systems that can supply power to a home or the grid on demand. The State's 5-Year Energy Plan should take seriously the rapid development of EV and storage technology by completing a detailed analysis of not only our current EV charging infrastructure but also the impacts of increased demand for these resources.

The State of West Virginia is well positioned to develop and support pilot projects in energy storage, EVs, and community solar. Such pilot projects could attract significant private investment to our state and position West Virginia at the forefront of research and development in these areas. Additionally, legalizing solar Power Purchase Agreements (PPAs) for non-profits, municipalities, and schools would spur the development of the state's solar market while simultaneously broadening worthy civic institutions' access to the financial benefits of solar. Thus, reconsideration of the state's current ban on third-party electricity sales should be part of the 5-Year Energy Plan.

Thank you for consideration of these comments. Please do not hesitate to contact me with any questions or for additional information or clarification.

Sincerely,

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