PICKERING
ENERGY SOLUTIONS
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Date: October 20, 2017
To: WV Office of Energy
Ref: West Virginia's 2018-2022 State Energy Plan

WV Energy Planners:

As I was unable to attend either of the scheduled public meetings, I make these comments as a solar installer based in Parkersburg WV and performing solar installation work in WV, OH, PA and FL.

As your research paper (from Marshall University[i]) indicates, West Virginia has adopted net metering, and with virtual metering capabilities will allow for experimentation with residential community solar projects, which is great. Perhaps largely unplanned (or unevolved), however, WV has several barriers to solar penetration on a commercial scale, which will discuss.

Tariff Rates

Residential tariff rates allow for reasonable return for the cost installation and you will see increasing deployment of these systems as the cost/return becomes increasingly favorable. Commercial markets above 10 kW, however, which are billed under General Service Rate, Schedule C (Mon Power) are billed in accordance with the monthly peak demand comprising at least ½ of the billing while kWh is billed at $.048 per kWH. While this tariff rate scheme may have made sense in the 1950s when large coal fired power plants had to maintain 'rolling reserve', times have changed. With a diversity of sources available to the market and load-deployment schemes available, this peak power tariff rate is now severely limiting renewable energy growth at the medium and larger commercial level and should be replaced by a time-of-use tariff rate, as recommended in the Marshall report.

As solar produces power during the day, largely at a peak time, it plays well with WV's traditional (coal-based 'baseload') plants. By going to a 'time-of-use' billing scheme, you will be incentivizing entrepreneurial users and companies to develop and deploy battery schemes and load-shifting resources which will help re-balance these systems (and create jobs and potentially trigger new business opportunities). This strategy would play well with the existing coal-based energy sources while allowing for the leveraging of the emerging gas market players.

Third Party Financing

As the wording of 150CSR33 is ambiguous about third-party financing, most of the major solar players have jumped over WV as they move from the west coast to the east. If we limit our solar market only to for-profit WV companies with the financial ability (and incentives) to install solar, we will continue to fall behind our neighbors. Because of this ambiguity, WV companies are more cautious about developing creative financing packages for solar projects and missing out on these opportunities to grow our businesses locally, work with new technology and, sadly, employ West Virginians in the booming renewable energy market.[ii] When we look to install new commercial projects, we look to our neighboring states first for this reason.[iii]

Smart Grid Development

In the early 2000s, when WV adopted the Alternative and Renewable Energy Portfolio Standards and net metering, we were also at the front of the smart-grid and micro-grid technologies. At that time Mon Power and DOE were piloting a micro-grid project at the Technology Center in Fairmont-Morgantown, and WVU was providing research on the leading edge of the revolution[iv]. I am not aware of any additional research or movement in WV toward grid improvements since then.

WV's traditional grid structure (generate-transmit-deliver), coupled with the regulated utility structure is not open to utilizing the new technologies capable of being deployed (such as demand control and battery systems as indicated above) on the large commercial or utility scale. Thus, WV is missing out on the opportunities to see and participate in the business opportunities created by the development and use of these technologies.[v] Even our WV utilities are deploying renewable energy technologies other states.[vi][vii] Thus we are standing by and watching other states (our neighbors) receive the benefits and business opportunities associated with the research and deployment of the technologies of the future.[viii]

In closing, I love the state of WV and choose to live here. I believe that West Virginians can take advantage of the coal (and natural gas) markets while also participating in the new and growing technologies of the future, if we have the proper foresight. To that end, I would be glad to participate in the ongoing discussion or help in any way that I can to create the environment where WV can thrive in the new clean-energy economy of the 21st century!

Warm regards;

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[i] Marshall Research Paper http://www.energywv.org/assets/files/EnergyPlan/Renewable-Energy-Opportunities-for-West-Virginia-2017-Update.pdf
[ii] Energy.gov Energy Employment Report https://energy.gov/downloads/2017-us-energy-and-employment-report
[iii] US EPA https://www.epa.gov/repowertoolbox/understanding-third-party-ownership-financing-structures-renewable-energy
[iv] WV Super Circuit Project https://www.smartgrid.gov/files/USDOE_WVSC_Project_Final_Report_5-30-2014_R1.pdf
[v] US Department of Energy https://energy.gov/under-secretary-science-and-energy/grid-modernization-initiative
[vi] AEP Solar https://www.bizjournals.com/columbus/news/2016/05/11/aep-ohio-seeks-developers-for-large-scale-solar.html
[vii] AEP Wind https://www.bizjournals.com/columbus/news/2017/07/26/aep-to-spend-4-5-billion-on-biggest-single-wind.html
[viii] Ohio Smart Grid Pilot https://www.smartgrid.gov/project/aep_ohio_gridsmartsm_demonstration_project.html