Testimony in Support of HB1451

Introduction

Honorable Representatives of the House, thank you for the opportunity to provide testimony on this critical issue. My name is Mark Schroeder, and I am here today to support HB1451. I stand before you not only as a concerned citizen but also as a Utility Scale Solar Developer. I have been in the Energy Business since 1993. Starting in 2001, I have owned energy advisory firms that focus on the commercial and industrial space, electric and natural gas supply companies, a fuel oil delivery company, behind the meter generation, and solar development as both an owner and an operator. My associates and I have just completed an 8.7 MW solar facility in Somerset County that was Phase II to an existing 3.3 MW facility and we are planning to deploy 40 MWs of additional Projects in MD and PA.

Background

MD Energy Policy is the most aggressive in the Nation when it comes to the elimination of Greenhouse gases. The mandate in 2021to have 50% of the energy supply come from renewable energy sources by 2030 has proven elusive. There are many headwinds that a renewable energy developer must overcome to install capacity. To meet the requirements of the State, we would need to build nearly 80 square miles of solar projects, which is the equivalent size of the City of Baltimore. Most Utility scale Projects, which are the only way to have a chance of meeting the goals, take anywhere from 3-5 years to build due to financing, regulations and permits, PJM interconnection, supply chain delivery issues, and push back from local communities. In addition, solar and wind are intermittent resources that strain the existing transmission and distribution systems and require upgrades that are expensive and subject to supply delays. Techniques such as storage can help alleviate the impact on the system, but those systems are just coming online, are still quite expensive, and will not have an immediate impact.

Current Situation

The push to transition to renewable sources of energy has caused the closing of fossil fuel generation and an increase in our existing reliance on generation from out of State via the PJM interconnection. This has led to supply and demand issues that have raised the cost of electricity and dramatically increased capacity costs for our State. The PJM Generation Mix is predominated by NG fueled plants (40%), nuclear (32%) and coal (16%) on any given daytime period. Solar provides about 8% and other renewables 4%. When the sun is not shining, the balance shifts to even greater NG and fuel oil-based generators. The efficiency of the generation mix is another issue that must be considered. PJM Generation is about 30 % efficient. Transmission and distribution losses drop that efficiency to 28 % for a commercial client and 27% for the homeowner. The push to electrify our transportation and buildings have a perverse impact on greenhouse gas emissions. For example, an electric vehicle is 76 % efficient. But 76 % of 27% (the efficiency of the power generated for the homeowner is 20.5%. The average gasoline powered vehicle is 30%

efficient, so the EV is nearly 10% less efficient which **means more fossil fuels will be burned to make up for the EV's efficiency loss**. The same is true for buildings. Natural gas furnaces are on average 80% efficient and NG stoves are 50%. If it is assumed that electric furnaces and stoves are 100% efficient (they are not), losses of nearly 50% for heating and 23% for cooking would again lead to more burning of fossil fuels to make up the difference. While going all electric may remove the greenhouse gases in the MD region, it causes an increase in emissions to the region, which is ultimately worse for the environment.

Improved Outcomes

The proposed legislation would allow a pause in the drive to go all electric and allow the renewable generation developers to build out the infrastructure needed to achieve the goal of decreased emissions. There are multiple items that need consideration. Using natural gas as a bridge to an all renewable world would allow costs to be controlled and provide stability to the grid as enhancements are made to the system. Permitting and regulatory burdens must be addressed. The push to electrify our buildings through the Building Energy Performance Standards Program and EmPOWER MD must be paused as well. Though well intentioned, it only drives up the cost of electricity, demand on the grid (which is already overburdened), and causes more greenhouse gas emissions. The time to interconnect to the PJM grid must also be reduced and this can be accomplished by allowing more generation to be behind the Distribution system. If Maryland is to build an economy based on adding new industries such as Data Centers, low-cost energy must be a driver, or these industries will locate to our nearby neighbors who do not advocate policies that create high priced energy.

Conclusion

In conclusion, I urge you to consider the proposed legislation. By taking decisive action, we have the opportunity to create lasting positive change for our community and state. The evidence is clear, and the need is urgent. Your support will make a profound difference in both the lives of your constituents as well as our environment.

Thank you for your time and attention. I am happy to answer any questions and provide further information as needed.