BEFORE THE PENNSYLVANIA HOUSE ENVIRONMENTAL RESOURCES and ENERGY COMMITTEE

Testimony Of

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Public Hearing on HB2277 – PRESS Legislation

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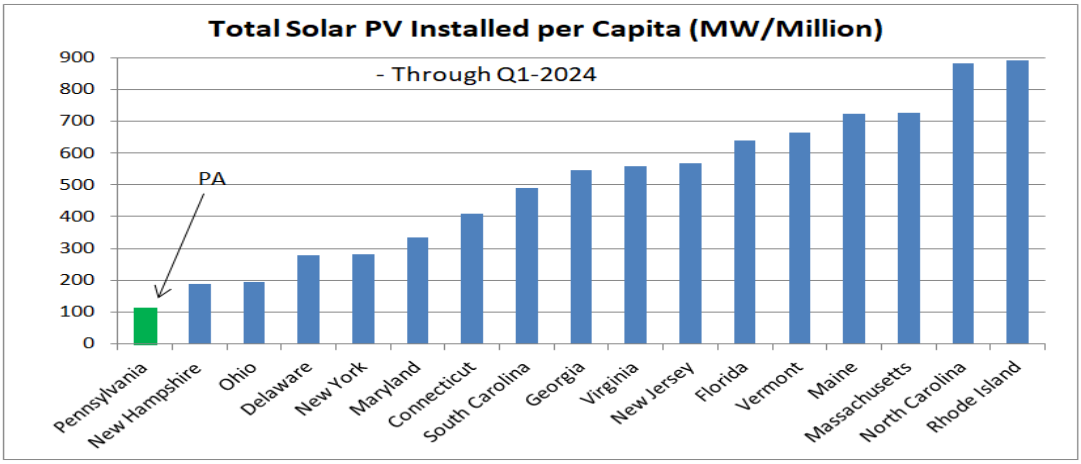
My name is Ron Celentano, President of Pennsylvania Solar & Storage Industries Association ("PASSIA") - a Division of the Mid-Atlantic Solar & Storage Industries Association ("MSSIA"), which is a not-for-profit trade association for over 25 years, made up of businesses and professionals working in Pennsylvania, New Jersey and Delaware involved in the development, manufacturing, design, construction and installation of solar photovoltaic ("PV") and energy storage systems. PASSIA/MSSIA is dedicated to advancing solar energy and energy storage as the primary energy sources in the Mid-Atlantic region, to create a sustainable energy future for all segments of the population while generating economic growth and high-quality jobs. Thank you for this opportunity to address the House Environmental Resources & Energy Committee regarding HB2277 or the Pennsylvania Reliable Energy Sustainability Standard ("PRESS") legislation.

The current Alternative Energy Portfolio Standard ("AEPS") requirements of 8% Tier 1 renewable energy resources, including 0.5% in-state solar, and 10% Tier 2 alternative energy resources, have been met on May 31, 2021, as scheduled. For the past several years, there have been several bills introduced to extend the AEPS without success of even getting out of the relative committees. In the meantime, many other states have accelerated the implementation of renewable energy resources, in particular, solar energy. This is clearly illustrated in the graph below, with Pennsylvania being dead last with total solar capacity installed per capita, relative to 16 other states on the U.S. East Coast, based on National Solar Energy Industries Association's data.



PASEIA applauds the introduction of HB2277, which is the latest and most diversified bill intended to essentially expand the current AEPS in Pennsylvania through a revised Tier 1 and Tier 2 platform, in addition to a new Tier 3. Focusing just on Tier 1, this bill proposes to increase renewable and clean energy currently from 8% to 35% by 2035.

Tweaks Are Needed

However, the bill doesn't expand the in-state solar requirement of 0.5% that is in the original AEPS, thus allowing for any new solar and other renewable energy projects built across the PJM territory, which includes 13 states and the District of Columbia, to be certified and eligible to sell their alternative energy credits ("AECs") into the PRESS market place in Pennsylvania. Then, by 2030, HB2277 suddenly requires 10% of all electric energy sold to Pennsylvania retail customers come from Tier 1 resources generated by facilities located in Pennsylvania, without providing any interim milestones or targets between 2024/2025 and 2030, but includes a 1% per year increase of Tier 1 resources from facilities located in Pennsylvania until 2050. That would mean by 2035, at least 15% of Tier 1 resources would come from facilities located in Pennsylvania, and as much as the remaining 20% of the total 35% requirement could come from the rest of the states in the PJM territory.

Why does the in-state Tier 1 ramp requirement begin in 2030, when it is essential to have as much renewable energy resources generated from facilities located in Pennsylvania as soon as possible? In particular, it is critically important to have a growing dedicated share of distributed generation ("DG") or customer-generators, such as behind-the-meter on-site solar projects installed in the Commonwealth. DG solar allows behind-the-meter customers to generate on-site renewable power which will reduce their electric bills, and can provide reliability and resilience when coupled with storage. DG solar is also most efficient, as delivers generation directly to the on-site and local community loads, reducing conventional generation plant transmission and distribution line losses. In addition, DG solar helps reduce the economic and technical pressure to scale up and overhaul the transmission and distribution infrastructure for increased loads, as customers shift to total electrification of their loads, including electric vehicles and all electric appliances.

At least there should be a growing Tier 1 market penetration requirement in the Commonwealth. Large or grid-scale solar and other renewables can provide the greatest impact to lowering all customers' bills, as it delivers power at the about the same period when the electric demand is high, as well as the high price of electricity. From the PowerGEM/CEI Pennsylvania 2030 Solar Generation Study[1], commissioned by Community Energy, it was found that generating 10% of Pennsylvania's electricity from solar energy would save about $300 million annually from wholesale electricity costs, by significantly reducing the need for operating expensive peaker plants to meet high system peak loads. Even by reaching 5% solar penetration, all electric customers across Pennsylvania, those with or without solar on their properties, would begin to benefit from electric rate reductions.

[1] Community Energy PA Solar Study - https://www.communityenergyinc.com/pasolarstudy

Solar on Farmlands

According to the American Farm Bureau Federation, Pennsylvania lost more than 6,000 farms between 2012 and 2017, in addition to more than 700 dairy farms lost between 2018 and 2020, with many more farms lost, since then. Having solar installed on part of the farm can provide supplemental income that can help sustain Pennsylvania farms. Landowners are paid about a fixed annual price of $800 to $1,500 per acre (based on 2018 data) to lease land for solar development for 20 years or more. For struggling farmers, this additional income can allow them to keep their farms. And unlike farmland that has been sold and lost to residential developments or construction for warehouses or shopping centers, the solar leased farmland will be returned to an improved fertile soil condition after the solar equipment is removed at the end of the lease. The total amount of land needed to achieve the proposed solar goal in Pennsylvania for grid scale and community solar facilities is quite insignificant. Even if 10% solar penetration was all grid scale, it would only require about 80,000 acres, which would be about 0.27% of all the land area in Pennsylvania.

By allowing cheaper out-of-state renewable energy projects to be built and financed by Pennsylvania ratepayers without having a growing ramp of in-state Tier 1 resources, more Pennsylvania farms will be lost well before 2030.

Loosing Solar Jobs to Neighboring States

The solar installer trade is the fastest growing job sector across the country. But, the solar energy field also includes engineers, electricians, surveyors, real estate agents, attorneys, financiers, laborers, manufacturers and others. Pennsylvania had about 5,770 people working in the solar market, in addition to 2,901 working in the wind industry in 2021, according to E2's Clean Jobs Pennsylvania

2022 summary[2]. But, far more of these jobs exist and continue to grow in Pennsylvania's neighboring states, as their renewable energy goals are far higher than in our state. By comparison to goals in New Jersey (50% by 2030), Maryland (50% by 2030), Delaware (40% by 2025), New York (70% by 2030), and the District of Columbia (100% by 2032), the Tier 1 goal of 35% by 2035 for Pennsylvania in HB2277 is very modest. All of these and other states will continue to draw away solar, wind and other renewable energy professional jobs from Pennsylvania, unless our state substantially increases our goals or establishes an increasing in-state Tier 1 market penetration requirement.

Clearly, increasing the solar goals in Pennsylvania would significantly increase the solar workforce in the state. In fact, one of the prominent conclusions of DEP's 2018 Finding Pennsylvania Solar Future Study[3] was that 60,000 to 100,000 jobs would be created from increasing solar production to offset 10% of Pennsylvania's electric consumption. Another study commissioned by Community Energy[4] targeting the same 10% solar goal reached a similar conclusion of creating more than 65,000 jobs.

Economic Benefits Not To Be Missed

Regarding economic growth, a large portion of solar financing comes from private capital investment, but that is triggered by market indicators such as increasing solar goals, which is now enhanced with Federal tax credits from the Inflation Reduction Act. As concluded in the Finding Pennsylvania Solar Future Study and the Community Energy PA Solar Study, increasing the solar goal at least to 10% would create $9.2 million in private capital investment, $5.3 billion in local economic benefit, over $4 billion in wage earnings from over 65,000 new jobs, $228 million in local tax revenue,

[2] Clean Jobs – Pennsylvania 2022 - https://e2.org/wp-content/uploads/2023/03/Clean-Jobs-Pennsylvania-2022-.pdf
[3] Finding PA Solar Future Study *https://www.dep.pa.gov/Business/Energy/OfficeofPollutionPrevention/SolarFuture/Pages/Finding-Pennsylvania%E2%80%99s-Solar-Future.aspx*
[4] Ibid

$2.3 billion in farm lease payments (preserving family farms), and generate more than a billion dollars every year in fuel savings, cost savings, and avoided public health damages.

Ratepayer Cost Impacts

It is essential that renewable energy investments are made now in the Commonwealth for future clean electric generation development. This requires upfront costs for technologies that can generate electricity with no fuel costs for more than 25 years, which guarantees relatively flat and stable rates for decades, unlike the volatile rates of conventional electric generation.

Ratepayer impacts due to requiring a growing share of Tier 1 resources in the Commonwealth might seem to slightly elevate customer bills by 2030, but that doesn't include the down pressure on wholesale rates that could net zero rate increases. This is far from the enormous ratepayer cost impacts from conventional electric rate increases that will be expected in future years if renewable energy technologies are not rapidly implemented in the state. Without the growth of renewables, we can expect Pennsylvania's electricity mix to consist of 70% natural gas by 2030. In 2022 alone, rate increases ranged from 35% - 56% across all major electric distribution companies, driven by changes in supply and demand for natural gas, according to the Public Utility Commission. Without diversifying the energy mix in Pennsylvania, ratepayer cost impacts will be much greater than otherwise investing in renewables.

Thank you.