



December 11, 2023

Public Hearing on HB 1467

Pennsylvania House of Representatives Environmental Resources & Energy Committee

Thank you, Chairman Vitali and Chairman Causer and committee members. On behalf of Sol Systems and our 2,500 customers across Pennsylvania, we respectfully submit this testimony in support of House Bill 1467 and the AEPS. Specifically, Sol Systems thanks the committee for taking the step today to better understand and identify strategies that can pair solar and clean energy resources with other existing state energy resources to allow Pennsylvania to remain a national energy leader and long-term net energy exporter.

Sol Systems is a leading national solar energy firm with an established reputation for integrity and reliability across its development, infrastructure, and environmental commodity businesses. Sol is operating and building over 2 gigawatts (GW) of solar projects valued at more than \$2 billion for Fortune 100 companies, municipalities, counties, utilities, universities, and schools and provides environmental commodity portfolio management services to nearly 50,000 customers across the U.S. Sol Systems has customers in 59 counties across Pennsylvania and was an early pioneer of Pennsylvania's renewable energy industry by providing homeowners and small businesses the ability to monetize solar renewable energy credits (SRECs). Sol Systems is based in Washington, D.C., with employees in suburban Philadelphia and the greater Harrisburg area.

Solar energy is both a critical piece of the electricity generation mix and a key driver of good, local jobs. By the end of Q3 2023, the value of Pennsylvania's solar market reached \$3.5 billion and over 4,288 jobs¹. Solar provides a relatively weather-agnostic domestic energy source that provides local employment opportunity together with critical revenue streams for local communities and landowners. In 2022 alone, \$36 billion was invested in solar in the U.S. Most projections expect this to reach \$600 billion by the end of the decade, which creates a massive near-term opportunity for Pennsylvania^{2,3}.

¹ <https://www.seia.org/sites/default/files/2023-12/Pennsylvania.pdf>

² <https://www.seia.org/solar-industry-research-data#:~:text=Solar%20as%20an%20Economic%20Engine,investment%20in%20the%20American%20economy.>

³ <https://cleanpower.org/blog/its-a-big-deal-for-job-growth-and-for-a-clean-energy-future/>

I. Renewable Energy Drives Growth

Renewable energy is experiencing significant growth, driven in large part by corporate commitments to sustainable energy practices. As of recent data, the RE100 initiative, which comprises over 3,980 member companies globally, is significantly contributing to this trend. These companies, committed to achieving 100% renewable electricity, collectively drive over 420 TWh per year of renewable electricity demand, comparable to the power needs of a medium-sized country⁴.

Regarding the growth of renewable energy capacity, it is estimated that the corporate renewable power purchase agreement (PPA) market in the United States alone could drive between 218 and 296 TWh of demand, translating to 55–85 GW of incremental solar and wind capacity additions by 2030. This projection is based on current policy conditions and indicates a robust but potentially slower pace of growth compared to previous estimates⁵.

In terms of specific technologies, the cost of solar power, which is already the cheapest form of electricity production, is expected to continue its downward trajectory. The global capacity of solar and wind energy is projected to account for more than a third of the world's electricity by 2030, marking a significant increase from the current level where these sources generate around 12% of electricity worldwide^{6,7}.

Capturing this once-in-a-generation opportunity relies on a stable, favorable business climate like Pennsylvania has historically provided to myriad energy sectors. In 2004, with the passage of the legacy renewable standard, Pennsylvania became a national clean energy leader in addition to its long-running role as a fossil and nuclear energy leader. Renewable energy will help write the next chapter in Pennsylvania's energy leadership and help ensure continued growth. While Pennsylvania's treatment of renewables has changed over time, the framework under which renewable projects are built has remained consistent and allowed major banks and project lenders a critical degree of regulatory certainty that drove 15 years of growth.

That is now in jeopardy.

⁴ <https://www.wemeanbusinesscoalition.org/blog/re100-renewable-electricity-demand-initiative-growing-in-reach-and-impact/>

⁵ <https://www.energypolicy.columbia.edu/publications/role-corporate-renewable-power-purchase-agreements-supporting-us-wind-and-solar-deployment/>

⁶ <https://www.reuters.com/sustainability/climate-energy/wind-solar-produce-over-third-global-power-by-2030-report-2023-07-13/>

⁷ <https://www.ecowatch.com/wind-solar-global-energy-forecast-2030.html>

II. Pennsylvania Should Maximize all Clean Energy Resources Including Solar

The most efficient standards thrive because they establish a known and long-term requirement; use market-based mechanisms to facilitate private investment in renewable electricity; and provide regulatory certainty to homeowners, businesses, and investors financing long-term energy infrastructure and development.

Pennsylvania's legacy standard is an Alternative Energy Portfolio Standard (AEPs); renewable portfolio standards (RPS) and clean energy standards (CES) are also common. Regardless of the name, they all work similarly⁸. After the Legislature defines targeted technologies (i.e., what is "alternative" or what is "clean") and sets the desired amount (i.e., percent), regulatory agencies generally convert that to a specific obligation for compliance entities as specified in legislation, usually the electric distribution companies (EDCs; commonly called "utilities") and similar entities such as electric generation suppliers (EGSs), via a new currency called an Alternative Energy Credit (AEC)⁹. For each megawatt-hour (MWh) of generation from a targeted resource, one AEC is created. This creates a market-based means of compliance, with generators able to sell AECs and utilities able to purchase AECs equal to their annual compliance obligation. For example, if an EDC's annual obligation is 5 percent of 100 MWh of electric load, they must purchase and retire 5 AECs¹⁰. This allows the market to establish the price and for utilities to acquire the needed amount of alternative electricity as cost-effectively as possible. When there is insufficient supply of necessary resources, AEC prices will rise to encourage more alternative electricity sources to enter the market¹¹. Conversely, however, when the standard is too low or stops growing, the price signal declines, which is what we are facing now in the solar market in Pennsylvania.

Under Pennsylvania's legacy program, \$2 billion has been invested in the Commonwealth and over 4,000 people have been directly employed^{12,13}. All these benefits are now at risk unless the existing standard is fixed to allow for clear growth and continued in-state investment. Investors and businesses look to invest in states with predictable, long-term, and growing clean energy markets; the leveling off of the current

⁸ The same structure is applied in many sectors, such as the Renewable Fuel Standard (RFS) for liquid fuels.

⁹ RECs or CECs for renewable and clean energy credits, respectively. This same process works for specified sub-requirements like for solar (SRECs) or offshore wind (ORECs).

¹⁰ Retirement is necessary to ensure against double-counting the same MWh.

¹¹ Usually only up to an Alternative Compliance Payment (ACP), or price cap, to limit total program cost in the event of an unexpected shortage of AECs.

¹² Alternative Energy Portfolio Standards Act Compliance for Reporting Year 2020, February 2021.

¹³ 2020 Pennsylvania Clean Energy Employment Report, 2020.

standard sent a clear signal that Pennsylvania is no longer open for business in the fastest-growing energy sector. This is a mistake for Pennsylvanians across the Commonwealth.

Pennsylvania has long been a national and global energy leader, but risks falling behind if we do not offer a supportive framework for the clean energy resources demanded by customers, businesses, and investors. At less than one percent of total electricity generation, doubling solar must be the floor, not the ceiling, of Pennsylvania's energy ambitions to meet this century's challenges while growing opportunities for family-sustaining jobs throughout Pennsylvania.

Corporates and importer states are increasingly demanding *clean* electricity – in order to maintain its status as the region's major electricity exporter, Pennsylvania must grow clean electricity. Without a supportive regulatory framework, Pennsylvania will lose its leadership role to other states that share Pennsylvania's geographic advantage within the PJM Interconnection.

III. Electricity Must Get Cleaner, but it Must Also Grow

As electrification ramps up, electrical load needs to grow significantly even taking into account energy efficiency and conservation. Supporting needed levels of electrification while maintaining – or preferably growing – Pennsylvania's energy exporter status requires a stable, supportive, and clear policy framework that supports all forms of clean energy, including the full spectrum of solar, from utility-scale to distributed generation. Each has a key role to play in a clean, electrified economy, one which Pennsylvania has the choice to lead.

IV. Next Steps

Passing HB 1467 will not only expand and diversify the Commonwealth's electricity generation capacity, but it will create new economic and jobs opportunities. Maintaining a robust a competitive renewable energy market will allow Pennsylvania to maintain its status as a net energy exporter and a leader in global energy security. It is essential to start now to develop a broad and diverse energy strategy for Pennsylvania. One that values the benefits of all electric generation types to grid reliability, but also considers key aspects like energy security, consumer protection, environmental harm, and regional competition. We have the tools we need now; we just need action from this committee and others to help chart the future path.

Thank you again for the opportunity to testify in support of the goals of HB 1467: ensuring a stable, favorable business climate that maximizes investment in and regional benefit of Pennsylvania's clean energy leadership.

Respectfully submitted,

Andrew Williams, Esq.

Vice President of Policy & External Affairs

Sol Systems, LLC

1101 Connecticut Avenue NW | Second Floor | Washington, DC 20036

Andrew.Williams@SolSystems.com