



August 26, 2021

Re: Sol Systems Supplemental Information Provided in Addition to Oral Remarks in Support of HB 1531 in Front of the PA House Consumer Affairs Committee

Dear Chairmen Marshall and Matzie and Committee Members:

On behalf of Sol Systems and its over 2,500 Pennsylvania customers, we respectfully submit this supplemental testimony in support of House Bill 1531. 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 national solar energy firm with an established reputation for integrity and reliability across its development, infrastructure, and environmental commodity businesses. To date, Sol has developed and financed over one gigawatt (GW) of solar projects valued at more than \$1 billion for Fortune 100 companies, municipalities, counties, utilities, universities, and schools and provides services to nearly 17,000 customers across the U.S. Sol Systems has customers in 57 counties across Pennsylvania and was an early pioneer of Pennsylvania's renewable energy by providing homeowners and small businesses the ability to monetize solar renewable energy credits (SRECs). Sol Systems is based in Washington, D.C. and has employees located in suburban Philadelphia and the greater Harrisburg area.

I. Renewable Energy Drives Growth

Renewable energy is beginning a period of remarkable growth. Bloomberg New Energy Finance estimates that the 285 corporations that belong to the RE100 could drive as much as 93 GW of incremental new wind and solar projects by 2030.ⁱ In fact, corporate demand for solar alone is estimated to exceed 50 GW by 2030.ⁱⁱ In 2020, companies announced 11.9 GW of new projects,ⁱⁱⁱ representing 43 percent of all new electricity-generating capacity additions in 2020, the largest share in the industry's history and the second consecutive year that solar ranked first among all generation technologies.^{iv} Still, we estimate that to reach existing national clean energy commitments, the solar and renewable energy industry will have to at least quadruple in size. Considering that the U.S. solar energy market is valued at over \$20 billion now, there is a significant opportunity to build on the existing value of Pennsylvania's renewable energy industry and capture a great deal of growth here in the Commonwealth.

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.

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 similarly.^v 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).^{vi} 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 AECs.^{vii} 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 market.^{viii} 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 as the legacy standard flatlines with no planned replacement.

Under Pennsylvania's legacy program, \$2 billion has been invested in the Commonwealth and over 4,000 people have been directly employed^{ix,x}. 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 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. Pennsylvania should seize the opportunity to supply even more of the region's energy needs by growing and extending the stable, favorable business climate. Pennsylvania has historically provided for the energy industry in order to power this growth. 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

If Pennsylvania lawmakers take no action to fix the current standard, the Commonwealth stands to lose billions over the next decade to other states with more favorable regulatory frameworks. In addition to the value of increasing the legacy renewables energy program, Pennsylvania must protect the ability of homeowners and businesses to benefit from installing solar and other clean energy. This means ensuring that any policy adopted has a clear path for distributed generation, which is not accounted for under the existing solar incentives. All forms of solar, like all forms of clean electricity, bring diverse benefits to the grid and are worth supporting now as Pennsylvania looks to its third century of energy leadership.

Thank you again for the opportunity to testify in support of the goals of HB 1531: ensuring a stable, favorable business climate that maximizes investment in and regional benefit of Pennsylvania's clean energy leadership.

Respectfully submitted,

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Sol Systems

ⁱ Bloomberg NEF, January 2021.

ⁱⁱ IHS, October 2020.

ⁱⁱⁱ Bloomberg NEF, January 2021.

^{iv} WoodMac, U.S. Solar Market Insight Full Report, March 2021.

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

^{vi} 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).

^{vii} Retirement is necessary to ensure against double-counting the same MWh.

^{viii} 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.

^{ix} Alternative Energy Portfolio Standards Act Compliance for Reporting Year 2020, February 2021.

^x 2020 Pennsylvania Clean Energy Employment Report, 2020.