

ADVANCED ENERGY BUYERS GROUP

the policy voice of advanced energy purchasers

November 20, 2017

Office of the United States Trade Representative

600 17th Street NW
Washington, DC 20508

Re: Potential Action: CSPV Cells
Docket No. USTR-2017-0020

To the Office of the U.S. Trade Representative:

The Advanced Energy Buyers Group (“AE Buyers Group”) respectfully submits written comments and a request to testify at the Trade Policy Staff Committee (“TPSC”) hearing on December 6 regarding the Section 201 Solar Trade Case.

The Advanced Energy Buyers Group (“AE Buyers Group”) is a business-led coalition of large energy users engaging on policies to expand our opportunities to procure energy that is secure, clean, and affordable. Our companies are among the 71% of Fortune 100 companies and 43% of Fortune 500 companies that have established renewable energy and/or energy-related climate targets as part of our corporate sustainability commitments. In 2016, members of the AE Buyers Group totaled over \$1 trillion in revenue and collectively consumed over 18 terawatt hours (“TWh”) of electricity, including over 11 TWh hours of renewable electricity, equivalent to the electricity sales for the states of North Dakota and Delaware, respectively.

As downstream solar customers, our businesses would be directly harmed by increased operating costs due to imposition of undue remedies for imported solar cells and modules. Our companies have also contributed to the development of this fast-growing industry, which currently employs over 260,000 Americans, and we expect to benefit from future improvements in cost and performance. This trend supports the acceleration of cost-competitive electricity for all customers, but it would be disrupted by undue remedies for imported solar cells and modules.

In summary, our testimony in the TPSC hearing will follow the arguments of our written comments, which explain our perspective as large downstream solar customers. First, we will explain why pursuit of renewable energy and other advanced energy is integral to the business success of a growing number of companies, including members of the AE Buyers Group. Second, we will describe in brief how we make resource decisions to meet our energy needs,

explaining that while we are committed to reaching our renewable energy goals, our pathway to achieve them is sensitive to price. Third, we will explain how small deviations in the price of solar can cause a project to go forward, or not. Fourth, we will describe three ways that undue remedies in the Section 201 Solar Trade Case would directly harm downstream solar customers. Specifically, we will explain that undue remedies will raise our costs, disrupt our progress toward our renewable energy goals, and also cause both short-term and long-term harm to downstream solar customers as a result of harm to the U.S. solar industry. Finally, we will conclude by recommending remedies that avoid undue harm to the U.S. solar industry.

The AE Buyers Group is facilitated by Advanced Energy Economy (“AEE”), a national business association of leading advanced energy companies. For the TPSC hearing, the AE Buyers Group wishes to be represented by Malcolm Woolf, Senior Vice President of Policy at AEE. As requested, Mr. Woolf’s contact information is as follows:

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At a time when solar is becoming cost-competitive in a growing number of markets, even small increases in cost would be a significant setback, slowing the progress of an industry that supplies a growing number of U.S. businesses and consumers with secure and affordable energy. We appreciate your consideration of our perspective in this case.

Respectfully,

The Advanced Energy Buyers Group

<https://info.aee.net/ae-buyers-group>

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I. INTRODUCTION

On behalf of large energy users, the Advanced Energy Buyers Group (“AE Buyers Group”) urges the Office of the U.S. Trade Representative (“USTR”) against undue import relief in the Section 201 Trade Case brought by Suniva and Solar World.¹ Our companies are among the 71% of Fortune 100 companies and 43% of Fortune 500 companies that have established renewable energy and/or energy-related climate targets as part of our corporate sustainability commitments.² Imposition of undue tariffs on imported solar cells and modules would increase our operating costs and directly harm our businesses.³ As major consumers of solar energy, we have also contributed to the development of this fast-growing industry, which currently employs over 260,000 Americans. As deployment continues to increase, the solar industry will achieve further improvements in cost and performance; imposition of undue remedies in this case threatens to disrupt this momentum to the detriment of downstream solar customers. In light of the recommended remedies submitted to USTR from the U.S. International Trade Commission (“U.S. ITC” or “Commission”), we recommend a balanced approach that avoids unduly increasing the cost of solar energy.

II. ABOUT THE ADVANCED ENERGY BUYERS GROUP

The AE Buyers Group is a business-led coalition of large energy users engaging on policies to expand our opportunities to procure energy that is secure, clean, and affordable. Members of

¹ These comments represent the consensus view of the Advanced Energy Buyers Group (information and membership available at <https://info.aee.net/ae-buyers-group>). However, this document does not necessarily reflect the position of any specific member of the AE Buyers Group, and these comments should not be attributed to any individual company or companies participating in the AE Buyers Group.

² Advanced Energy Economy, *2016 Corporate Advanced Energy Commitments* (Dec. 2016), <https://info.aee.net/growth-in-corporate-advanced-energy-demand-market-benefits-report>.

³ The Solar Foundation, *National Solar Jobs Census* (2016), <https://www.thesolarfoundation.org/national/>.

the AE Buyers Group are leading companies and organizations spanning a range of market sectors. We share a common interest in expanding our use of advanced energy, such as renewable energy like wind, solar, geothermal, and hydropower; demand-side resources like energy efficiency, demand response, and energy storage; and onsite generation from solar photovoltaics (“PV”), advanced natural gas turbines, and fuel cells. Our analyses and internal business planning have shown that expanding the use of such technologies will make us more competitive, resilient, and sustainable enterprises far into the future.

Members of the AE Buyers Group totaled over \$1 trillion in revenue in 2016, and consumed over 18 terawatt hours (TWh) of electricity, meaning that, collectively, our companies would rank as the 40th-largest state for electricity sales. Already, we have made good progress on our renewable energy targets, and members of the AE Buyers Group expect to consume over 11.3 TWh of renewable energy in 2017, approximately equivalent to the electricity sales for the District of Columbia or the state of Delaware.⁴ This energy is sourced from offsite projects totaling well over 5 gigawatts (“GW”) in more than a dozen states, as well as from hundreds of onsite solar arrays and from grid-supplied renewable energy. As our businesses and our electricity use continue to grow, we have many more projects currently underway, and we are also pursuing renewable energy internationally. Looking ahead, many of our companies have made commitments to eventually meet up to 100% of our electricity needs with renewable energy.⁵

⁴ U.S. Energy Information Administration (“EIA”), *State Electricity Profiles*, available at <https://www.eia.gov/electricity/state/index.php>.

⁵ RE100, *Companies* (Nov. 2017), <http://there100.org/companies>.

III. COMMENTS

In light of the ITC's findings in this case regarding injury, the AE Buyers Group submitted both a pre-hearing and a post-hearing brief urging the Commission against recommendation of undue remedies. In these comments to USTR, we similarly recommend a measured and balanced approach that avoids undue harm to downstream solar customers and to the U.S. solar industry.

In its request for comments, USTR specifically asked for input on three items:

1. "The appropriateness of any other proposed action and how it would be in the public interest;
2. the short- and long-term effects the proposed action is likely to have on the domestic CSPV industry, other domestic industries, and downstream customers; and
3. the short- and long-term effects that not taking the proposed action is likely to have on the domestic CSPV industry, its workers, and on other domestic industries and communities."⁶

The comments of the AE Buyers Group focus on the second and third items, with a particular emphasis on the impacts of potential tariffs or other remedies on downstream customers.

Because downstream consumers such as our companies would also be harmed by a slowing of the progress of the U.S. solar industry, we comment briefly on the impact of undue tariffs on this growing sector, noting that, at a time when solar is becoming cost-competitive in a number of markets, even small increases in cost would risk interrupting the steady improvements in price and performance realized to date. By slowing the progress of an industry that supplies secure and affordable energy across the country, this case would have negative repercussions far into the future for our businesses and all electricity customers.

⁶ Office of the U.S. Trade Representative, Request for Comments and Public Hearing About the Administration's Action Following a Determination of Import Injury With Regard to Certain Crystalline Silicon Photovoltaic Cells, Docket No. USTR-2017-0020, <https://www.federalregister.gov/documents/2017/10/25/2017-23098/request-for-comments-and-public-hearing-about-the-administrations-action-following-a-determination>.

Our comments are arranged as follows: **first**, our comments describe why members of the AE Buyers Group are pursuing renewable energy and other advanced energy; **second**, our comments explain how our companies weigh available options and make decisions regarding renewable energy, emphasizing that we are both price sensitive and resource agnostic; **third**, our comments underscore how easily projects can shift away from being cost-competitive; **fourth**, our comments explain three ways in which undue remedies in this case would directly harm our business interests; and **fifth**, we provide recommendations regarding remedies.

A. Pursuit of renewable energy and other advanced energy is integral to the business success of a growing number of companies, including members of the AE Buyers Group.

As noted above, members of the AE Buyers Group are among the 71% of Fortune 100 companies and 43% of Fortune 500 companies that have established renewable energy and/or energy-related climate targets as part of our corporate sustainability commitments.⁷ These commitments make economic sense for our companies, and are integral to our business strategy for several reasons.

First, our pursuit of renewable and other advanced provides long-term certainty for our companies. Because renewable energy projects have no fuel inputs, the main cost of these projects is the upfront capital cost, plus predictable and relatively low operation and maintenance costs. Therefore, these projects are able to set long-term, fixed purchase prices for the energy they produce. Placing this fixed price on our electricity bill enables long-term price certainty, stabilizing our operating costs and providing a potential for significant savings over time.

⁷ Advanced Energy Economy, *2016 Corporate Advanced Energy Commitments* (Dec. 2016), <https://info.aee.net/growth-in-corporate-advanced-energy-demand-market-benefits-report>.

Second, in addition to price certainty and reduced risk, renewable energy also offers the opportunity for cost savings. In a growing number of markets, renewable energy is cost-competitive with traditional fossil fuel-based resources, and as the upfront capital cost of renewable energy has fallen, many projects are able to provide savings from day one. Prices tracked by the Lawrence Berkeley National Laboratory show that average levelized power purchase agreements (“PPAs”) for solar PV dropped more than 75% since 2009 to reach approximately \$35/MWh for contracts signed in 2016, and PPAs for wind dropped 73% since 2009 to reach \$19/MWh for contracts signed in 2016.⁸ These prices mean that renewable energy is at or below grid parity in many locations, as discussed in more detail below (III.C.).

Third, our commitment to pursue renewable and other advanced energy also reflects the demands and expectations of our customers, employees, investors, boards, and business partners; similarly, pursuit of local, renewable energy allows us to bring benefits to the communities that host our operations by supporting local resources, jobs, and clean air. As consumers, employees, and investors increasingly hold expectations around companies’ energy profiles and community relationships, setting and making progress toward renewable energy targets has become an important part of what our businesses must do to remain competitive both domestically and globally.⁹ Our businesses cannot afford to lose ground.

⁸ Lawrence Berkeley National Laboratory, *Utility-Scale Solar 2016: An Empirical Analysis of Project Cost, Performance, and Pricing Trends in the United States*, available at https://emp.lbl.gov/sites/default/files/utility-scale_solar_2016_slides.pdf, at 25; U.S. Department of Energy, *2016 Wind Technologies Market Report*, available at https://emp.lbl.gov/sites/default/files/2016_wind_technologies_market_report_final_optimized.pdf.

⁹ For example, investors rely on sustainability ratings to assess the sustainability commitment of businesses, and numerous investor coalitions target companies that pursue sustainability initiatives, including renewable energy procurement, including the 100-member Investor Network on Climate Risk, the 100-member Institutional Investors Group on Climate Change, the 300-member Interfaith Center on Corporate Responsibility, the 1300 signatories to the Principles for Responsible Investment, and the 822 institutional investor signatories to CDP.

Fourth, our pursuit of renewable energy also supports a more dynamic and innovative electricity system that is better suited to meet our needs both now and in the future, boosting our competitiveness while also bolstering the U.S economy. Specifically, a diversified electricity mix supports system resilience by reducing reliance on fuel-dependent resources subject to price, regulatory, and fuel supply risks. Furthermore, renewable energy deployment initiated by our companies and other customers has contributed to the significant improvements in the cost and performance of renewable energy noted above, a trend that is expected to continue as deployment continues to rise. In addition to providing a direct competitive advantage to renewable energy purchasers, future cost improvements for renewable energy will lower the overall cost of electricity, benefitting even of those businesses and consumers not directly pursuing renewable energy. By reducing risk and promoting innovation and technology improvements, our renewable energy purchases benefit our companies while also benefitting all electricity customers both now and long into the future.

For all these reasons, members of the AE Buyers Group, along with a growing number of leading national and international companies, have set ambitious renewable energy targets. We hold these commitments as business requirements, and we intend to comply with the targets we have set.

B. While AE Buyers Group members are committed to reaching our renewable energy goals, our renewable energy purchasing decisions are price sensitive.

Just as the decision to pursue renewable energy or other advanced energy is a strategic calculation, so too are decisions around how to meet these targets. Accordingly, members of the AE Buyers Group consider multiple factors when making resource decisions to meet our energy needs. Generally speaking, our companies do not hold a preference for one technology type over others, but rather choose between different projects on the basis of a few key considerations,

including but not limited to price, policy, proximity to our operations, resource availability, developer track record, contract structure, and contract term.

The most important factor—both for our businesses and for USTR’s consideration of this case—is the price of a project relative to our existing supply and available alternatives. All our renewable energy purchases must make economic sense, so price is an extremely important consideration when weighing different options to make progress toward our renewable energy goals. While some companies may be willing to pay an initial premium for a long-term fixed-price contract, others cannot accept a premium, and all companies are seeking opportunities to break even or save money by switching to renewable energy.

Two additional and related factors that are important to both our businesses and to this case are resource availability and technology options, which also impact cost and production. While our requests for proposal for renewable energy projects to meet our needs are generally resource agnostic, there are considerations that make one technology a better fit than another. Most importantly, the technical potential and land availability for different renewable energy options varies across the country and across the world. In some regions, such as the Great Plains, wind is the best available renewable energy option, while in other regions, such as the Southwest and Southeast, large-scale solar PV is generally the most attractive option. Onsite solar is an option across most of the U.S. for companies that have the capability to host onsite projects. In addition to resource availability, there are other considerations that make one technology a better fit for a specific project than another. For example, choosing between crystalline silicon PV (“CSPV”) and thin-film PV depends on a number of factors, including available space, desired efficiency,

desired durability, desired project life, average temperature, cloud cover, etc.¹⁰ These factors all affect our assessment of the total cost and expected production of renewable energy facilities, which is critical to our assessment of whether a project makes economic sense.

These key factors point to three conclusions that are particularly relevant to USTR's consideration of the impact of this case on downstream solar customers. First, while members of the AE Buyers Group are committed to reaching our renewable energy targets on time, our renewable energy procurement decisions are in fact price sensitive. As voluntary purchasers, there are multiple paths we can take to accomplish our renewable energy goals, and we elect to pursue those projects that make good financial sense. If project economics are undermined by non-market forces, this will indeed affect the financial viability of offtake agreements from these projects, limiting our ability to purchase cost-effective renewable energy. Second, the purchasing decisions of companies such as the AE Buyers Group are resource agnostic, and companies will select the projects that best suit our needs. Third, while our purchasing decisions are resource agnostic, different resources are not necessarily interchangeable to meet the needs of a given facility in a particular location. In some cases, the "second-best" available technology may be prohibitively expensive or a poor fit to match the profile of a particular facility; in other cases, there may not be a "second best" resource option.

The next sections explore these factors in more detail; Section III.C. below explains why our renewable energy purchasing decisions are so sensitive to small cost increases, and Section III.D. explores the implications of tariffs or other remedies for imported CSPV cells and modules on our renewable energy purchasing activities.

¹⁰ Switch to Solar, "Crystalline vs. Thin-film Solar Panels," <http://switchtosolarnow.com/solar-101/crystalline-vs-thin-film-modules/>.

C. Solar is competitive today in many markets, but small deviations in price can upend project economics.

With solar energy at or near grid parity in many regions, even small deviations in price can make the difference between a project that is economically feasible and one that is not.

For utility-scale solar PV, PPAs reached a levelized cost of \$35/MWh for contracts signed in 2015, and individual contracts have been reported below \$30/MWh.¹¹ These utility-scale projects must compete with wholesale power prices, and in many markets these PPA prices would be competitive today while offering the potential for even greater savings over the life of the project. However, with wholesale prices hovering between about \$15/MWh and \$50/MWh (see Figure 1), there are some places where a \$40/MWh or even \$30/MWh solar project would not be cost-competitive.¹² For a project that is just above or just below the price at which it would be competitive on cost, a slight shift up or down can determine whether the project moves forward.

¹¹ Lawrence Berkeley National Laboratory, *Utility-Scale Solar 2016: An Empirical Analysis of Project Cost, Performance, and Pricing Trends in the United States*, available at <https://emp.lbl.gov/sites/default/files/utility-scale-solar-2016-slides.pdf>, at 25; Gavin Bade and Peter Maloney, “Updated: Tucson Electric signs solar = storage PPA for ‘less than 4.5¢/kWh,’” *Utility Dive* (May 23, 2017), <https://www.utilitydive.com/news/updated-tucson-electric-signs-solar-storage-ppa-for-less-than-45kwh/443293/>.

¹² Robert Walton, “Power & Gas Index: Wholesale electricity and natural gas price trends across the US,” *Utility Dive* (May 22, 2017), <https://www.utilitydive.com/news/power-gas-index-wholesale-electricity-and-natural-gas-price-trends-acros/436437/>.

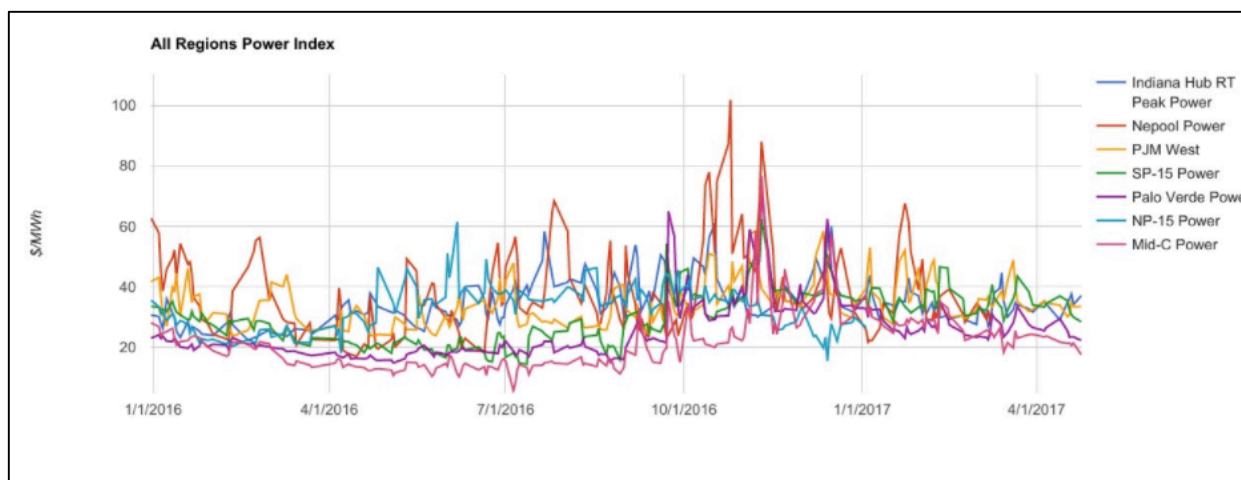


Figure 1. Wholesale power prices in the U.S., January 2016 through April 2017. Source: Utility Dive, from U.S. Energy Information Administration.¹³

Research from the University of Texas at Austin found that solar is already the first or second least-cost technology in many counties under certain scenarios when compared against not only alternative renewable energy options, but all generation options. The research also found that there is generally a very small difference between the first and second least-cost technology. This means again that small deviations in price can make solar either cost-competitive or not. The research also points out how location-specific these considerations are, with least-cost technologies varying regionally based on resource potential and other factors.¹⁴

For rooftop PV projects, the “price to beat” varies based on how solar customers are credited for the solar they produce onsite. Based on current net energy metering policies and rate design, analysis by GTM Research in 2016 found that 20 states had already reached grid parity for

¹³ *Id.*

¹⁴ Rhodes, Joshua D., King, Carey W. Gülen, Gürcan, Olmstead, Sheila M., Dyer, James S., Hebner, Robert E., Beach, Fred C., Edgar, Thomas F., and Webber, Michael E., “A Geographically Resolved Method to Estimate Levelized Power Plant Costs with Environmental Externalities” White Paper UTEI/2016-04-1, 2016, available at <http://energy.utexas.edu/the-full-cost-of-electricity-fce/>.

residential solar, with 42 expected to achieve that milestone by 2020 under business-as-usual conditions (see Figure 2).¹⁵

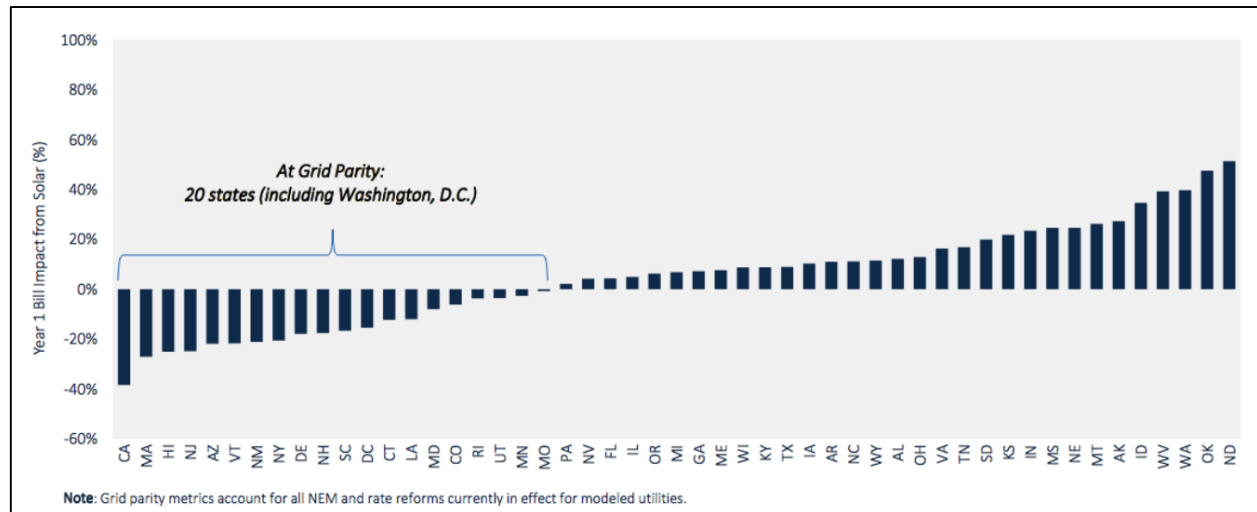


Figure 2. States at grid parity for onsite residential solar. Note: Grid parity accounts for net energy metering and rate reforms in effect at the time of study for all modeled utilities. Source: GTM Research.¹⁶

For both utility-scale and rooftop PV, projects are currently at or near the price needed to compete on cost alone, which is key for driving voluntary purchases of solar projects—including by members of the AE Buyers Group, other voluntary customers, and even utilities seeking power to meet their needs outside of renewable portfolio standard (“RPS”) requirements.

D. Undue remedies in the Section 201 Solar Trade Case would directly harm downstream solar customers and disrupt the business interests of companies that are pursuing renewable energy, including the members of the AE Buyers Group.

As noted above, solar PV is cost-competitive or close to cost-competitive in a growing number of markets across the U.S. Even a small increase in price can make a competitive project

¹⁵ GTM Research, *U.S. Residential Solar Economic Outlook 2016-2020: Grid Parity, Rate Design and Net Metering Risk* (Feb. 2016), available at <https://www.greentechmedia.com/research/report/us-residential-solar-economic-outlook-2016-2020#gs.WiE5Ny4>.

¹⁶ *Id.*

infeasible, and vice-versa. It is our understanding that the solar industry has slim profit margins already, and that project developers will not be able to absorb cost increases and shield downstream customers from the impact of any remedies introduced in this case. As such, increased costs for solar energy due to remedies in this case would directly harm our businesses in the near term by causing some solar projects to not move forward, including projects in our current pipeline and projects not yet planned. At the same time, those projects still able to move forward would do so at a higher cost, with the price increase passed on to downstream solar customers. Further, undue remedies in this case would harm the solar industry writ large, harming all electricity customers—and downstream solar customers in particular—by slowing the ongoing cycle of cost and performance improvements. We expand upon these impacts below.

1. Imposition of undue remedies will cause some solar projects to not move forward due to increased costs.

As noted above, members of the AE Buyers Group are sensitive to the price of renewable energy, as are other customers that have voluntarily committed to increase their use of renewable energy. With the cost of solar in most markets hovering either just above or just below the price at which it can compete on cost alone, even small increases in price can make a project uneconomic, causing voluntary purchasers such as members of the AE Buyers Group to either seek other resources to meet the needs of a particular facility—if there are viable alternatives in that market—or pursue opportunities elsewhere, in markets offering better access to affordable renewable energy options.

In either case, losing the opportunity to pursue solar projects in certain markets will directly harm our businesses by disrupting our current pipeline and eliminating some future projects, setting back our progress against our renewable energy goals. This case has already had a damaging effect on solar projects, raising costs as solar providers prepare for shortages. While

we can and will seek alternative resources to meet our needs, even small cost increases for solar projects would disrupt our progress. Many of our companies are currently expecting that a significant portion of our future renewable energy purchases will come from solar projects. Undue cost increases for solar projects would limit the array of choices available to us in certain markets, in some cases eliminating the only viable option, hindering our progress toward our renewable energy targets.

2. Imposition of undue remedies will case some solar projects to move forward at higher price than would have been achieved otherwise.

Just as the current economics for solar across the country will cause some projects to not move forward if costs increase even slightly, the same factors mean that some projects will still be feasible at a higher price. For such projects, downstream customers will be the ones to directly absorb the cost increase. Thus, in addition to slowing our progress toward our renewable energy targets by sidelining projects in some markets, imposition of undue remedies would also directly harm our businesses by increasing the cost of solar projects in other markets where these projects are still feasible.

The result of these cost increases is that our businesses and other downstream solar customers will either take reduced savings or pay a higher premium for solar projects that can still move forward, directly harming our businesses by increasing our operating costs.

3. Imposition of undue remedies will directly harm the U.S. solar industry and set back the ongoing cycle of cost and performance improvements, harming our businesses over time.

Reduced demand from customers, including our companies, due to increases in the price of solar projects risks disrupting the current trajectory of the solar industry at a time when rapid advances in cost and performance are contributing significantly to the growth of the U.S.

economy. While the solar industry in the United States is expanding rapidly by turning a limitless resource into jobs and economic activity, the industry is still relatively young, and a slowdown could set the industry back significantly. A setback for the solar industry would directly harm not only our companies but all electricity customers by slowing deployment and delaying advancements in technology.

While a portion of solar projects are driven by policy targets or mandates, voluntary purchases by corporate customers such as our companies account for an increasing share of the solar market. According to a recent report from the National Renewable Energy Laboratory, voluntary corporate procurement of utility-scale solar power accounted for 17% of total utility-scale procurement in early 2017, up from 9% in 2016 and less than 1% in 2014.¹⁷ This increased demand has been driven, in large part, by decreases in the cost of solar energy (see Section III.A.), which have been driven, in turn, by increased deployment that has led to further improvements in cost and performance. Increased deployment of solar energy also supports a U.S. solar industry that was valued at \$23 billion last year and employs over 260,000 Americans, with the bulk of these jobs in installation, construction, and manufacturing.¹⁸

These voluntary purchases have contributed to the growth of the solar industry to date, but also make the industry vulnerable to a downturn if the cost of solar increases. Undue remedies in this case risk disrupting the consistent trajectory of rising deployment and falling costs that has made solar a growing sector of the U.S. economy and such an attractive option for us to meet our

¹⁷ Jenny Heeter, Jeffrey J. Cook, and Lori Bird, Charting the Emergence of Corporate Procurement of Utility-Scale PV, National Renewable Energy Laboratory (September 2017), available at https://www.nrel.gov/docs/fy17osti/69080.pdf?utm_source=newsletter&utm_medium=email&utm_campaign=newsletter_axiosgenerate&stream=politics.

¹⁸ The Solar Foundation, *National Solar Jobs Census* (2016), <https://www.thesolarfoundation.org/national/>.

energy needs. Slowing this trajectory will harm downstream solar customers well into the future by delaying anticipated price and performance improvements. For our companies, this means a delay in cost declines for one of our key operating inputs.

It is important to note that harm to the U.S. solar industry will impact not only those customers directly purchasing solar energy to meet their own needs, but all customers. This is because voluntary solar procurement—by customers and by utilities going above RPS mandates—brings a range of benefits that flow to all customers, such as a more diverse electricity mix, lower costs, and reduced risk.

E. The AE Buyers Group recommends remedies that avoid undue harm to the U.S. solar industry.

In two sets of comments to the U.S. ITC submitted prior to and following the Commission's hearing regarding potential remedies in this case, the AE Buyers Group opposed imposition of undue remedies. In our pre-hearing comments, we noted that both Goldman Sachs and Bloomberg New Energy Finance estimated that the tariffs and minimum pricing requirements initially sought by petitioners would double the price of solar panels in the U.S., with substantial adverse impacts for the solar industry and downstream solar customers. In our post-hearing comments, we argued that the revised remedies sought by petitioners, which would result in more modest but still significant price increases with no clear pathway to support the domestic CSPV industry, also failed to strike a balanced approach.

Our companies were encouraged that Commissioners unanimously agreed that the remedies sought by petitioners were unreasonable, issuing a range of recommendations that all fell well below the requested levels. Specifically, our companies were encouraged to see lower recommended tariffs that were set *ad valorem*, and we were also pleased to see Commissioner Broadbent recommend an approach relying on a modest import license fee with proceeds

supporting domestic CSPV cell and module manufacturers. Coupled with a quota sufficiently high to allow the continued acceleration of the solar industry, this approach would have a less severe impact on our businesses and is more likely to bring benefits to domestic CSPV cell and module manufacturers than tariffs alone.

While the best outcome for our businesses, other downstream solar customers, and the U.S. solar industry overall would be to avoid disrupting the industry by imposing any remedies in this case, a more modest approach would have a more modest disruption. To the extent that USTR proposes remedies in this case, the AE Buyers Group recommends a balanced approach that takes into consideration the impact on downstream solar customers as described in our comments alongside the impact to the U.S. solar industry and the anticipated benefits, if any, to domestic CSPV cell and module manufacturing.

IV. CONCLUSION

The AE Buyers Group appreciates the opportunity to provide input during USTR's consideration of remedies for domestic CSPV cells and modules. At a time when solar is becoming cost-competitive in a growing number of markets, even small increases in cost would present a significant setback, slowing the progress of a fast-growing industry that supplies a growing number of U.S. businesses and consumers with secure and affordable energy. As businesses with significant experience purchasing solar energy and plans to pursue many more solar projects in the years ahead, members of the AE Buyers Group recommend that USTR take a measured approach that avoids undue harm to the U.S. solar industry and to downstream solar customers.