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US House of Representatives Committee on Natural Resources
Subcommittee on Energy and Mineral Resources
Increasing Renewable Energy on Public Lands
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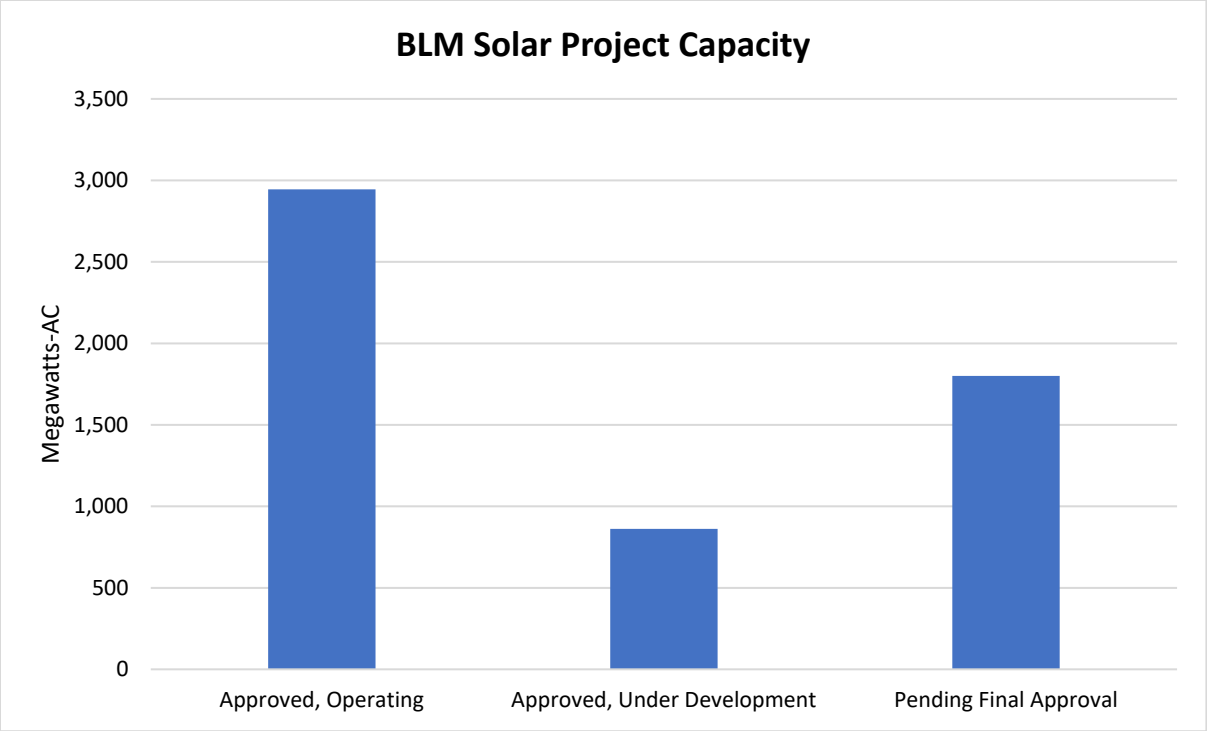
Chairman Lowenthal, Ranking Member Gosar and members of the Subcommittee, thank you for inviting me here today and for your interest in increasing solar energy on public lands.

I am Abigail Ross Hopper, president and CEO of the Solar Energy Industries Association (SEIA). SEIA is the national trade group for America's solar energy industry with 1,000 member companies. Approximately 250,000 Americans work in the $17 billion per year solar industry.

The solar industry is growing. Solar generation currently provides 2.3% of our electricity in the United States; by 2030, we aim for solar energy to be 20% of the electricity generation mix. To get there, SEIA has designated the 2020s the Solar+ Decade, recognizing the fact that the industry will need to both aggressively pursue policies to facilitate solar deployment while also collaborating with other technologies to make it happen.

As we look to substantially increase solar deployment nationwide, public lands are an important resource. Today there are nearly 3 GW of solar projects in operation on the Bureau of Land Management (BLM) lands, with another 2.6 GW under development or awaiting final approval. Together, these projects supported (or will support) over 15,000 jobs, primarily in rural areas. Electricity from these projects will power nearly 1.5 million homes annually. While being mindful of existing resources and uses, utility-scale solar projects on federal land bring jobs and economic opportunities as well as affordable clean energy to communities across the country. However, working through the approval process for projects on federal land can be challenging for developers.



Many of the concepts outlined in H.R. 3794, the Public Lands Renewable Energy Development Act of 2019, will improve the efficiency of reviewing and ultimately approving projects, allowing businesses and local communities to make full use of all the opportunities our public lands afford. My testimony today will address the growth of solar, highlight several exciting projects that have been built on public lands over the last few years, identify the challenges that companies are experiencing when trying to develop on our public lands, and opine on how this legislation seeks to solve those. I will also raise several other issues, including tax policy and equity, that are critical to the continued deployment of solar across the nation.

Importance of Continued Solar Growth

As an industry, America's solar energy companies have set ambitious growth objectives. Increasing solar energy deployment on public lands will be a critical component of the industry's future success. Currently, solar energy supplies just 2.3 percent of the nation's electricity, which is the equivalent to taking 15.6 million vehicles off the road or planting 1.2 billion trees. Our goal is to supply 20% of electricity generation by 2030, which means we will need to install an average of 39 gigawatts (GW) each year through the 2020s. For comparison, we installed 10.6 GW last year.

The solar energy provided by this rapid growth will provide affordable clean energy to Americans. For example, the cost of utility-scale systems has fallen by nearly 75% since the first

BLM solar project was approved in 2010. According to a recent study by Lazard, utility scale solar is competitive with all other forms of electricity generation, with a levelized cost of energy (LCOE) of $36 - $46 per MWh.[1] However, public lands can only contribute if rents are reasonable and the permitting process efficient.

If we are successful in reaching our 20% goal, we will create 350,000 additional jobs and build more systems annually than we have installed to date. That means there will be a total of 600,000 solar jobs in 2030 – more employees than every single US company except for Walmart. In addition, the solar industry will add more than $345 billion into the US economy over the next ten years, reaching $53 billion annually. We will prove that renewable energy is one of the strongest economic growth engines this country has seen in decades.

Utility-scale solar power plants, the types of solar energy projects built on public lands, account for a large portion of the industry's growth to date and will continue to lead solar deployment in the future. Today there are over 2,500 operating utility-scale solar energy projects in the United States generating over 40 gigawatts of solar electricity. This is enough electricity to power about 7.8 million homes. About 60 percent of all solar energy capacity in the United States is from utility-scale solar. In 2018, utility-scale solar provided 1.6% of all US electricity and 9% of all electricity generated from renewables.

And it is not only the solar industry that has set ambitious goals for itself. Many states, particularly in the West, have adopted aggressive requirements or goals for renewable energy generation, and many fast-growing industries such as cloud computing data centers are seeking contracts for solar energy. As demand for solar energy continues to grow, the availability of public lands becomes increasingly important.

Solar Success Stories on Public Lands

As mentioned above, nearly 3 GW of solar projects are in operation on BLM lands, with another 2.6 GW under development or awaiting final approval. There are certainly lessons learned and areas for improvement that I will discuss below. First, however, I'd like to highlight several successful projects and processes.

In 2015, BLM held its first competitive auction for renewable energy on public lands in the Dry Lake Solar Energy Zone in Clark County, Nevada. The auction is a great example of the success of Solar Energy Zones, which are areas identified for solar development with access to several transmission lines, industrial facilities and core transportation hubs. As

[1] https://www.lazard.com/media/450784/lazards-levelized-cost-of-energy-version-120-vfinal.pdf

a result of the successful siting, projects in the Dry Lake Solar Energy Zone were approved in half of the average time of previous solar energy projects.

Last year, the BLM approved three projects on public lands:

- On June 26, the BLM authorized the Sweetwater Solar Energy Facility in Sweetwater County, Wyoming, the first solar energy project on BLM-administered lands in the state. The Sweetwater solar energy project will be a PV facility with a generating capacity of up to 80 MW. The project area includes 638 acres on public lands and is now up and running.

- On November 1, the BLM authorized the Palen Solar Project, a PV facility that includes 3,140 acres of BLM-administered public lands. The 500 MW Palen Solar Project will deliver power through the Southern California Edison Red Bluff Substation.

- On December 20, the BLM authorized the Ormat Tungsten Mountain Solar Project in Churchill County, Nevada. This project will be an 18 MW photovoltaic solar array occupying approximately 130 acres and providing power to the Tungsten Mountain geothermal power plant and its supporting well field.

Challenges to Solar Development on Public Lands and H.R. 3794's Role in Addressing Those

Over the years, the solar industry has worked closely with the BLM, the Department of the Interior, and Congress to develop solutions that allow America's public lands to meet America's demands for clean, renewable, and cost-competitive energy while protecting our biological and cultural resources.

H.R. 3794 continues that effort by helping to ensure additional resources and expertise are available to make development more viable. As public policy and customer demand for solar energy grow, this legislation will facilitate growth of solar energy on public lands by addressing several of the key challenges associated with development on BLM-managed land, namely, the need to create a more efficient and predictable permitting process and the need to develop competitive rental prices and terms.

Too frequently, developers seeking to build solar projects on public lands face permitting processes that are lengthy and unpredictable. SEIA member companies have experienced delays in the permitting processes due to the BLM's limited resources. This has been the case for one of our member companies, whose 650 MW solar installation has been slowed down because of a lack of permitting resources at the BLM.

SEIA believes that the National Environmental Policy Act (NEPA) plays an important role in ensuring that environmental and cultural impacts are avoided, minimized and mitigated. It also provides many opportunities to advance certain energy efficiency and renewable energy efforts. However, the length of time required for NEPA compliance, as well as the hundreds of thousands of dollars developers must spend prior to any approval, creates significant hurdles to development. There is a clear need to establish stronger coordinated efforts that sustain a predictable, well-resourced compliance process. While the current administration has taken steps to address these issues through new regulations, these new regulations should not cut short the necessary and needed environmental reviews of any new project.

In addition to permitting delays, high rents, capacity fees, and bonding requirements are making BLM lands less competitive for solar energy projects. The BLM's 2016 Solar and Wind Energy Rule was intended to support additional renewable energy deployment on BLM managed land. However, it has resulted in rents considerably higher than fair market value, megawatt capacity fees that unnecessarily increase costs and are not part of comparable contracts for private land, and excessive bonding requirements. These new costs have combined to make public lands uncompetitive for new projects—effectively leaving much of the available land off the market. The solar energy industry has been working constructively with the BLM and Interior Department to address many of these issues, and the bill under consideration provides additional authority and legal guidance to enhance those efforts.

Highlights of H.R. 3794- ***The Public Lands Renewable Energy Development Act of 2019***

SEIA supports the goals of H.R. 3794, the Public Lands Renewable Energy Development Act of 2019, as it is a step in the right direction of expanding the role public lands play in the future of renewable energy. Proposals in the bill that are most impactful to the solar industry include:

Establishing a Renewable Energy Coordination Office

The bill requires the Secretary of the Interior to establish a National Renewable Coordination Office, as well as state, district, or field offices responsible for developing a program to improve Federal permit coordination on renewable energy projects. This configuration has proven to be successful in helping solar projects come to fruition much faster and provide cost-competitive clean energy to American consumers that much faster. Codifying the Renewable Coordination Office will ensure that the BLM has the staffing levels and expertise necessary to process applications for new solar power plants.

Rental Rates

In addition, the bill addresses the issue of rental rates by giving certainty about the kinds of rent increases to expect while allowing for the reduction of rental rates and capacity fees for new solar authorizations if the Secretary of the Interior determines that the current rate is not competitively priced. We have heard from our companies that this is an important way to keep federal land solar development vibrant and cost competitive.

Revenue Sharing

While solar development provides many benefits to the communities hosting solar facilities, and provides a substantial net environmental benefit overall, currently the states and counties in which solar projects are built on BLM lands do not receive any funds from the federal government through payments in lieu of taxes or other means. This is especially important for rural counties, which often struggle due to reduced property tax revenue related to heavy federal presence. Solar developers are committed to ensuring that the benefits of solar development are shared with the communities they are working in and we leave it up to policy makers to decide the proper allocation.

The Solar Investment Tax Credit

While this legislation represents strong bipartisan commitment to increase solar deployment, there are other legislative tools our industry needs that will support sustained development of solar, both on and off federal land. That includes an extension of the Investment Tax Credit (ITC).

The ITC has been the single most important bipartisan federal policy responsible for solar deployment. Since 2006, it has created hundreds of thousands of solar jobs and generated over $140 billion in economic investment. The tax credit is scheduled to step down at the end of 2019 and will be much reduced for utility-scale solar by 2022. As nearly 1,000 solar companies asserted in a joint letter sent to Congress last week, the solar industry believes that the solar ITC should be extended at its current rate. SEIA urges Congress to extend this important tax credit before the end of this session.

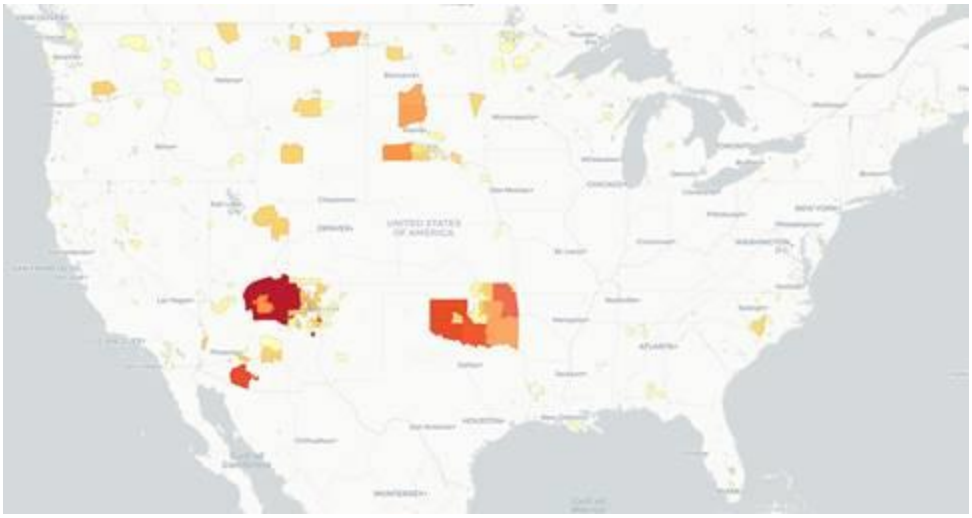
Support Clean Energy for All Communities

In addition to expanding clean energy opportunities on public lands, I encourage the committee to consider other ways to advance clean energy opportunities for all communities, including rural, agricultural, and tribal lands. Leadership and investment are necessary to make sure that every community is included in the clean energy economy.

Whether it be utility-scale projects that are co-located with other forms of agricultural production, including sheep grazing and beekeeping, to solar on community buildings such as government offices, schools and libraries, there are opportunities to integrate

solar into existing land uses. Solar can diversify income for farmers and landowners, add resilience to communities and reduce costs through energy savings.

Clean energy also provides a unique opportunity for Native American tribes and people living on tribal lands. Analysis from the National Renewable Energy Laboratory's Tribal Energy Atlas suggests there is 61 GW of economic solar potential on tribal lands. The map below outlines the areas with this potential.



Solar projects already exist on tribal lands and offer jobs and clean energy. Two such examples include the project Swinerton Renewable Energy is working on with the Navajo Nation in Kayenta, Arizona, and 8minutenergy's projects with the Moapa Band of Paiutes in Nevada. We look forward to seeing Congress work with Native American communities to facilitate additional solar deployment on tribal lands.

Conclusion

Thank you for your time and continued support of the solar industry. At a time when demand for solar energy is growing, federal lands are a valuable resource. In order to meet the public's demand for renewable energy, the option to construct solar energy projects on public land needs to be viable. The availability of federal public land with a reasonable permitting process and competitive rents will increase market competition, which will help keep costs low for consumers. Working together, private industry and the federal government can help reduce red tape, keep costs low, and help rural families and communities with economic growth and job creation.

I look forward to answering any questions you may have.