Testimony of Dan Conant
Founder and CEO — Solar Holler
Before the Committee on Energy and Natural Resources
United States Senate

"Building a Renewable Energy Economy in Coal Country"

I. Introduction

Good morning Chairman Murkowski, Ranking Member Manchin, and all the members of the Committee. I am honored and humbled to have the opportunity to speak with you all today as a representative of the vanguard of a new industry in Appalachia. I want to share today with you three stories—the story of how we re-imagined who solar is for; the story of how we started training the first generation of solar installers in coal country; and the story of what the Congress can do to help further our mission of bringing clean, renewable energy and a jobs within reach of all of our neighbors across Appalachia.

My name is Dan Conant; I am the Founder and CEO of Solar Holler. We are based in Shepherdstown and Huntington, West Virginia. I also come to you as a former advisor to the US Department of Energy's SunShot Initiative, and a veteran of multiple solar startups.

For generations, Appalachia has powered American prosperity with our coal. Solar Holler is ensuring that we will continue to power America in the 21st Century with renewable energy. From the moment I moved back to my hometown to start up our company 6 years ago, we have relentlessly pursued innovative approaches that make solar the most affordable source of energy for all of our neighbors across Appalachia.

Due to this dedication and approach, we are a rapidly growing team incredibly dedicated, talented, and passionate Appalachians. In the past year, we've grown from ten staff to thirty

five. Our team models, designs, finances, and builds beautiful solar projects that will last for two generations—all the while producing free, clean energy. Every project our team designs and builds helps families, non-profits, and businesses across our region cut their power bills, while revitalizing the economy of West Virginia.

Our dedication to making solar the most affordable source of energy for the folks who need it most was shown in our very first project—a groundbreaking community effort with my congregation, Shepherdstown Presbyterian Church. The project won national accolades—including the Interfaith Power & Light National Renewable Role Model award—for a first-of-its-kind crowdfunding approach.

Rather than passing a plate or doing a traditional capital campaign, we crowdsourced water heaters. Members of the congregation (and half the businesses in town), agreed to let us connect an internet-connected remote control to their water heater. We connected one hundred water heaters in a network—a network that we registered as a virtual power plant on the PJM regional grid. By adjusting water heaters second-by-second in tune with fluctuations of the needs of the regional grid, we have been able to incorporate more renewable energy into Appalachia's grid. We also created a new source of funds to support solar projects at churches, homeless shelters, affordable housing, and libraries across our state. That first project with my church would have cost the congregation more than $50,000 at the time. Instead it cost them $1. Over 25 years, that project will save the Church more than $100,000. That's $100,000 that rather than going to a large out of state corporation will go towards the mission and the ministry—feeding, housing, and clothing our neighbors.

We had to get creative and develop this approach because the normal model of using a Power Purchase Agreement in which a solar company sells the power to a non-profit was ruled by the West Virginia Public Service Commission to be at odds with our state-granted utility monopolies. Without those PPAs, the IRS has ruled that solar projects on non-profits are ineligible for the federal investment tax credit. Additionally, the USDA Rural Energy for America Program, which administers loan guarantees and grants to rural and small town solar projects, will not support any non-profit project.

Word in West Virginia gets around fast—especially when we do things first. Within a week so many community organizations wanted solar that we outstripped the capacity of the entire industry and everyone who had ever installed solar in our state. So we set to work building that capacity.

In 2015, we launched Rewire Appalachia—a workforce development and training program in partnership with Coalfield Development Corporation, a non-profit in Wayne County, West Virginia. Through this collaboration, Solar Holler has given young folks whose families have been in the mines for generations a hand up into the solar industry. We invested in their associates degrees at Mount West Community College; we paid for their electrical journeyworker courses; and enrolled them in their NABCEP solar certification training coursework. Apprentices have been able to further their educations, while learning on the job under the close supervision and tutelage of our Master Electricians.

At Solar Holler, we like to say it takes all kinds to pull a solar project off. It of course takes talented, eagle eyed electricians and roofers. But it also takes designers, engineers, warehouse and procurement staff, accountants, project managers, financiers, marketing, and everything else that it takes to support a team as big as ours. With no existing industry in the regions where we work, we've had to build up a new one. We needed to build the supply chains, build the financing tools, and work with local building inspectors who had never seen a solar project before.

Every day we are spreading the economic benefits of new solar and new energy into ancient hollers and ancient homesteads.

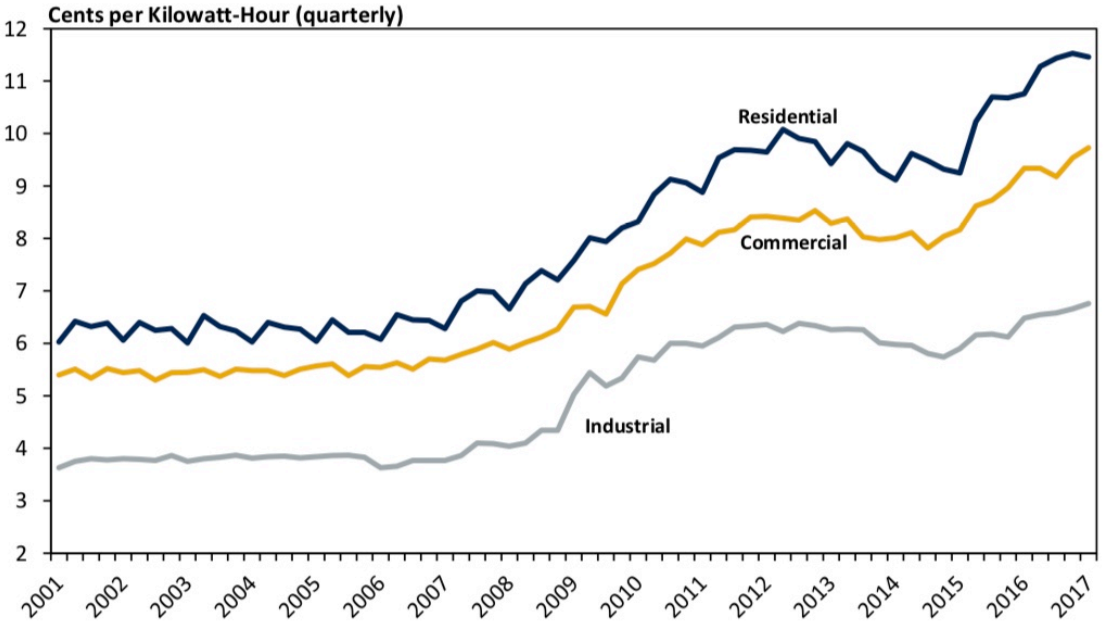
II. Market Demand for Renewables in Appalachia

It may seem counterintuitive that solar could be doing so well in Coal Country. After all, the common perception around the nation is that solar is eating into coal's market share. But

coal jobs have been declining for generations in my state due to automation and the move toward surface mining from underground mining.

Yet every day we work with retired miners, kids of miners, and families who have been sustained by coal for generations. When you ask a retired miner why they're going solar when they spent a lifetime in the mines, the answer is invariably the same: to save money and free themselves from the utility. It's no wonder. From 2008-2017, utility rates have dramatically increased across our state—increasing at the fastest rate of any state in the nation. During that period, rates increased at an average of 6.1% per year, compared to a national average increase of 1.4% annually. (McKinsey and Company, 2017). In just a decade, utilities have nearly doubled their rates—going from 6 cents per kWh to 11.5 cents per kWh.

That doubling is hard on our neighbors. We have the second lowest median income in the nation. Median income is 28% below national average. So when utility rates rise, it hurts. At 12,000 kWh per year, the average utility bill eats up more than 4% of the median take home income.



Source: US Energy Information Administration

III. Solar Economics in Appalachia

While monopoly utilities continue to increase their rates year after year for West Virginians, solar has gotten cheaper. And cheaper. And cheaper. Since 2010, the price per Watt of a solar panel has decreased by over 80%. Utility scale solar farms have declined from $4.50/Watt to just $1.03/Watt. Nationwide, residential scale solar prices have declined by 24% just in the last 5 years. Across Appalachia, homeowners and businesses alike are looking to these declining prices as a source of relief from their ever-increasing utility rates.

The single biggest incentive to assist homeowners and businesses in going solar is the federal investment tax credit. Expanded in 2005, and renewed in 2015, this tax credit enables system owners to reduce their system cost by 30%. While coastal states like Massachusetts and California have other state based incentives, in West Virginia and Kentucky, that is our only source of support. So we've needed to make solar work economically on its own.

IV. Policies to Make Solar Affordable for All of our Neighbors

While our team is amazing and I'm proud of the work we've done to build this industry, there are still challenges that have been put in place by state and federal policy—challenges that could be addressed by the members of this Committee. As I mentioned at the start, our mission is to bring solar within reach of everyone—not just the well-to-do. That's why we work with congregations and shelters and affordable housing. That's why we work with retirees and folks across the coalfields that the rest of the country has forgotten.

But the solar investment tax credit—the largest incentive for solar, and the only one for us here in West Virginia—only helps if you're paying taxes in the first place. That's no problem if you're a Google or Amazon; and it's no problem if you're making six figures. But for the retirees that call us every day worried about how they're going to afford a $400 electric bill on their social security income, or a non-profit that doesn't pay taxes at all, a solar tax credit is of no use.

So a retiree on a fixed income is expected to pay more for their solar project than a doctor. A homeless shelter is expected to pay more for their project than a successful business.

Even families that have stable incomes in our state aren't able to fully benefit from the tax credit on account of their incomes. For a family making the median household income in West Virginia—$43,469 in 2017—the average federal income tax bill is under $2,000. Yet the tax credit on an average solar system size would be more than $6,000. As a result, the normal homeowner in West Virginia is forced to extend their credits years into the future, delaying their payback compared to their wealthier neighbors or folks in other states.

Congress could help level the playing field for all Americans and organizations wanting to go solar in three principal ways:

1. Make the Investment Tax Credit refundable—to ensure that low to moderate income families aren't left out and expected to pay more than their neighbors for solar.

2. Expanding eligibility for the investment tax credit to include tax exempt entities. This could be modeled on the successful Section 1603 Treasury Grant program that was instituted in response to the collapse of the tax equity markets following the 2008 Financial Crisis. It could also be achieved by directing the IRS to reconsider its restrictions on eligibility that discriminate against projects in certain states.

3. Expand eligibility for USDA Rural Development programs (particularly the Rural Energy for America Program) to support low-income and non-profit solar projects. All solar projects on a school or a library in a rural areas help re-invest dollars in the local economy and build new industries just as much as a project on a small business.

V. Conclusion

Chairman Murkowski, Ranking Member Manchin, and all the members of this Committee—thank you for inviting me to share these thoughts with you today. I am thrilled

every day to be doing my part to build a 21st Century industry in my home state. We have demonstrated that there is demand for solar, even in Coal Country. Yet there are still challenges that keep many of our neighbors and community organizations from enjoying the benefits of lower bills, and control over their power source. I look forward to working with this committee to bring solar within reach of all Americans.

Thank you,

Dan Conant
Founder & CEO
Solar Holler