SENATE ENERGY AND PUBLIC UTILITIES COMMITTEE

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Ohio Has a Bright Future…Be Part of It!

Chairman Peterson, Vice Chair Schuring, Ranking Member Williams, Members of the Senate Energy and Public Utilities Committee. Thank you for the opportunity to offer testimony today.

My name is Jason Rafeld and I am a lifelong resident of Ohio. I am the Executive Director of the Utility Scale Solar Energy Coalition or USSEC. With me I have Jared Wren, a developer with Hecate Energy. Jared will speak to you today about the thoroughness of the OPSB process and the importance of community engagement. I'm also joined by Mike Volpe, Vice President, Open Road Renewables. Mike is going to address some of the mis-information heard recently before this committee. Both are developers currently doing great work here in Ohio.

I am here today on behalf of the Utility Scale Solar Energy Coalition. USSEC is a member-based trade organization representing utility-scale solar developers, manufacturers, and industry leaders throughout the state of Ohio. Despite being competitors, this group, joined together to ensure the viability of this new industry in Ohio by focusing on education and engagement with the local communities. Currently there are 19 members that include developers, owners, operators and manufacturers.

Aside from the obvious health benefits of cleaner air, utility scale solar power is poised to generate a multi-billion dollar infusion for Ohio's schools, local communities, our extensive farming sector and more. Solar energy can also meet the rapidly growing demands from job-creating businesses to supply increasing amounts of their power needs from clean sources.

The solar industry in Ohio is building a clean energy economy which will continue to bring business and tech to Ohio. Solar developers are racing to meet skyrocketing demand for clean energy, uniquely positioning the State to benefit for decades.

If this opportunity is realized, the State will become a solar powerhouse, bringing thousands more jobs and billions of critically needed investment dollars and economic growth to municipalities struggling from reduced tax revenues amplified by the coronavirus shutdowns.

Why now?

In Ohio, data centers like Amazon, Facebook and Google are buying the energy from entire solar projects in an attempt to meet their sustainability goals. GM and LG are partnering on an Ohio advanced battery factory in part because of the utility scale solar construction and its potential. Utilities are switching to clean power and businesses around Ohio and our country are demanding more!

This is part of a global trend. Recently, New York based Blackrock CEO, Larry Fink, sent a letter to CEOs which stated, "From January through November 2020, investors in mutual funds and ETFs invested $288 billion globally in sustainable assets, a 96% increase over the whole of 2019."

Additionally, in 2020 Blackrock commissioned a global sustainable investing survey called *"Sustainability goes mainstream."*

The study encompassed 425 investors made up of pension plans, sovereign wealth funds, insurers, asset managers, endowments, foundations and global wealth managers from 27 countries representing an estimated 25 trillion dollars in investment. ***Respondents from this study indicated that they are planning to double their sustainable assets under management in the next five years.***

This is a remarkable shift in investing that will have a massive impact on clean energy around the globe and right here in Ohio!

More than 75% of Ohioans favor allowing solar development in their community.

Solar power is popular. A recent poll which surveyed Ohioans between December 24, 2020 and January 1, 2021, found that:

- 84% believe property owners have the right to do what they want with their land, even if that means moving away from traditional uses of farmland.

- 67% believe it is important to bring new sources of clean energy to the state.

- 64% believe elected officials should do more to protect individual property rights.

Ohio's high-voltage transmission system offers opportunity.

Increased capacity on our well-developed transmission system has been opened up recently as the low price of natural gas has caused numerous Ohio coal plants to close.

This has helped create the opportunity for utility scale solar to connect to our transmission network. Without this access and capacity on Ohio's transmission network, building solar here would be far too expensive to make the business case feasible.

Location, location, location.

Eastern coastal states are implementing aggressive goals in clean energy procurement through renewable portfolio standards. These standards require procurement of a minimum percentage of renewables.

However, those states often lack the in-state resources to meet their goals due to transmission limitations, population density, and unfavorable land conditions. Thus, part of their renewable energy goals can be served by Ohio solar.

Unlike states east of us, Ohio has abundant open, flat and dry land that is ideal for solar farms. In building solar, there is no appetite to clear forests. Hills or undulations in the land make for inefficient installations and no one is interested in disturbing wetlands.

Farmland is plentiful in Ohio and is often well suited for building cost competitive, utility-scale solar. Farmers benefit financially from solar leases which often enable them to keep farm land in their family due to the high revenues received.

Utility scale solar is cost competitive with all other fuels.

According to the National Renewable Energy Laboratory, the cost of silicon solar cells has fallen from $76 per watt in 1977, to $0.20 per watt in 2020. In addition, the investment firm Lazard recently completed their annual Levelized Cost of Energy Analysis. Lazard determined that the cost of utility scale solar had fallen 90% from 2009 to 2020!

This is a dramatic decrease due to improvements in manufacturing, efficiency and the pricing of components. As a result of these price decreases, utility scale solar is now cost competitive with any fuel source.

Ohio's sun is there when we need it.

Ohio has the solar irradiance levels necessary to support large scale solar. May through September are all months with more than ample light and heat from our sun. These months balance out the grey, cloudy days of late winter.

Photovoltaic solar efficiency has advanced so even on those grey days, the panels are still producing electrons. This balance ensures utility scale solar will thrive in Ohio.

Importantly, our peak demand happens in July and August. This coincides with the highest level of production from solar panels.

Simply put, Ohio solar produces the most electrons at the time when our grid needs them the most. This helps our grid meet demand spikes when air conditioners are working their hardest!

Rigorous scrutiny of a limited number of buildable sites.

Ohio has a limited number of buildable sites. Too far from acceptable transmission lines or too much elevation change, for example, and the project likely won't work. As a result, there are a limited number of sites in Ohio that can support utility scale solar.

Ohio has one of the most extensive and rigorous processes for licensing utility scale solar facilities in the country. Ohio law defines utility scale solar projects as 50 MW or above. The licensing process applies to fossil generation plants, nuclear plants, pipelines, and transmission lines and is managed by the Ohio Power Siting Board.

Ohio law sets forth a well-developed regulatory framework requiring detailed applications for proposed projects, a thorough review by professional staff, extensive opportunities for public input and a rigorous hearing process.

Revenue for local communities, schools and farms.

As mentioned earlier, utility scale solar power will give Ohio and its local communities a multi-billion dollar infusion at a time when it's critically needed.

An economic analysis done by the Ohio University Voinovich School of Leadership and Public Affairs concluded Ohio will benefit from $9.6 billion in one time construction phase impacts and an additional $2.7 billion in impacts over the life of the project if 7.5 GW are built. (Michaud, G., Khalaf, C., Zimmer, M., & Jenkins, D. (2020). *Measuring the economic impacts of utility-scale solar in Ohio*.). We are well on our way to reaching 7.5 GW.

Additionally, project financing directly benefits local communities. Ohio's Payment In Lieu of Taxes or PILOT program sends revenue directly to the local community. This program ranges from $7,000 to $9,000 per megawatt per year.

As an example, if a project provides 100 MW AC power, the PILOT payment to the local community would be approximately $900,000 per year! Depending on the project, this payment would be made annually for approximately 30 years.

Good news for a change!

Ohioans should be excited about our bright future. We've got a lot going for us! This is good news at a time that seems full of bad news.

Utility scale solar can be part of a prosperity plan for many Ohioans including businesses, local communities, schools and our farming community.

In the coming years, we'll be able to say we transitioned from a fossil fuel giant to a clean energy giant…and that's something to be proud of!