



CITIZENS UTILITY BOARD OF OHIO

Proponent Testimony by Tom Bullock on House Bill 450 Executive Director, Citizens Utility Board of Ohio House Public Utilities Committee November 10, 2021

Chairman Hoops, Vice-Chair Ray, Ranking Member Smith, and members of the House Public Utilities Committee, thank you for the opportunity to submit proponent testimony on House Bill 450 (HB 450), a bill to offer consumers the choice, without mandates, of community solar subscriptions by enabling community solar projects in Ohio, with the additional benefit of providing economic growth in both rural and urban areas. My name is Tom Bullock, and I am executive director of the Citizens Utility Board of Ohio (CUB Ohio).

CUB Ohio is a consumer organization working on behalf of residential and small business utility customers. We are a nonpartisan nonprofit with membership across the state in the service territories of all four investor-owned utilities, and we work for cheaper bills, reliable service, transparency, consumer rights, and clean, healthy energy.

What Is Community Solar and How Does It Work?:

Community solar allows customers who want solar but cannot put solar on their own roofs to have access to solar power at a lower price. It allows consumers to affordably convert their power supply to Ohio-generated, zero-emission power from medium-sized, offsite solar systems whose power is shared, or subscribed to, by multiple users. The net result for those power subscribers is similar to that for consumers who install panels on their own property.

There are many reasons why a consumer may not be able to install solar on their own property. They may:

- Lack sufficient space for ground-mounted solar;
- Have a roof whose condition, surface, is not conducive to solar;
- Have a roof whose orientation or configuration is not conducive to solar (lacking sufficient south- or west-facing surface area);
- Have large trees shading the area, making solar unviable;
- Rent their home, lacking legal authority to modify the property upon which they live;
- Live in a large multi-family property, the roof of which will be small compared to the power load;
- Be about to sell their property or face other uncertainty about their ownership status, thereby creating reluctance on the part of the owner to install a solar system; or
- Lack finances to afford construction of a solar system.

For consumers meeting any of the above circumstances, community solar is a great option since it overcomes each one.

The owner of the community solar system pays the upfront costs to build, maintain and connect it to the power grid. Consumers subscribe to a portion of the project's monthly output sized to energy demand of the home or business. Consumers who move to a new home or location within the same utility territory can take their subscription with them.

Summary—What HB 450 Does:

Under current Ohio law, community solar is not permitted. As the bill sponsors describe, HB 450 would remove red tape to open a new market sector in the energy industry, attract economic investment, create jobs, drive innovation, support a stronger and more resilient grid, and provide access to consumers and small businesses affordably-priced solar power.

HB 450 would:

- Allow electric customers to subscribe to a community solar facility with a generating capacity of up to 10 megawatts (MW) on a conventional site or 45MW or less on a brownfield site to receive bill credits towards their electric bills for electricity produced by the facility;
- Allow subscribers to access net metering rates under the same rules currently defined by PUCO;
- Allow community solar developers to use the brownfield remediation grant program for projects on qualifying sites.

Of central importance: this legislation builds upon years of successful implementation of traditional net metering across Ohio under Revised Code 4928.67. The General Assembly enacted that provision knowing that it would provide an incentive to promote investment in clean, in-state generation and support a more distributed, resilient grid. Thousands of Ohioans have been able to invest in their own solar generation under that existing law. HB 450 would expand access to this framework and also reserve a large portion of the community solar program capacity for projects on distressed sites, adding significant economic development value.

Community Solar Offers Cost Advantages to Companies and Consumers:

CUB Ohio supports community solar since it can make the price of Ohio solar affordable for small business and residential consumers, including low- and moderate-income consumers. In general, CUB Ohio supports consumer access to clean energy that is *affordable* so that, as state government works to improve air quality and reduce the climate impacts of energy generation, it does so in a manner that is within the means of Ohio families and small businesses. Community solar can be an important tool in Ohio to do so.

Fast-dropping wind and solar prices, now ranking nationally among the lowest for any energy source, have helped greatly to make zero-emissions power affordable for large consumers. This has prompted [more than 150 companies across sectors to increasingly choose fixed-cost renewables, contracting 35 GW of wind and solar to power their businesses](#). A sampling of better-known companies include:

- Ohio companies such as Eaton Corporation, Cargill, General Motors, Procter & Gamble, FirstSolar, Budweiser/Anheuser-Busch, Dannon, Campbell's Soup, and Nestle;
- [national companies and iconic products](#) such as Lego, Mars/M&Ms, Walmart, Target, Disney, McDonald's, Johnson & Johnson, and Clorox.

HB 450 would allow not just these large companies, but also medium- and small businesses as well as residential customers, similar price advantages of scale. **Companies today are increasingly working to achieve compliance with Environmental, Social, and Governance (ESG) criteria** in order to attract and keep ethically-focused investors who now make ESG a central element in investment decisions. **Forward-looking companies across Ohio want to expand participation in ESG policies, and community solar**

provides an affordable option for mid-sized and small Ohio businesses to do so (whereas utility scale clean power has been a tier dominated by very large companies).

Solar pricing is like most commodities: as it achieves scale, they become more cost-effective—

- a small solar project at your home or small business that is 10- to 50-KW in size could cost \$2.00 per watt to install;
- a medium-sized 500KW to 5MW solar project might cost \$1.10 to \$1.80/watt; and
- a large utility scale project of 100MW might cost less than \$1.00/watt to install.

The following chart from the National Renewable Energy Laboratory shows the dramatic difference in installation costs between a residential system and a larger commercial system. Those installation costs drive the cost of power available to customers.

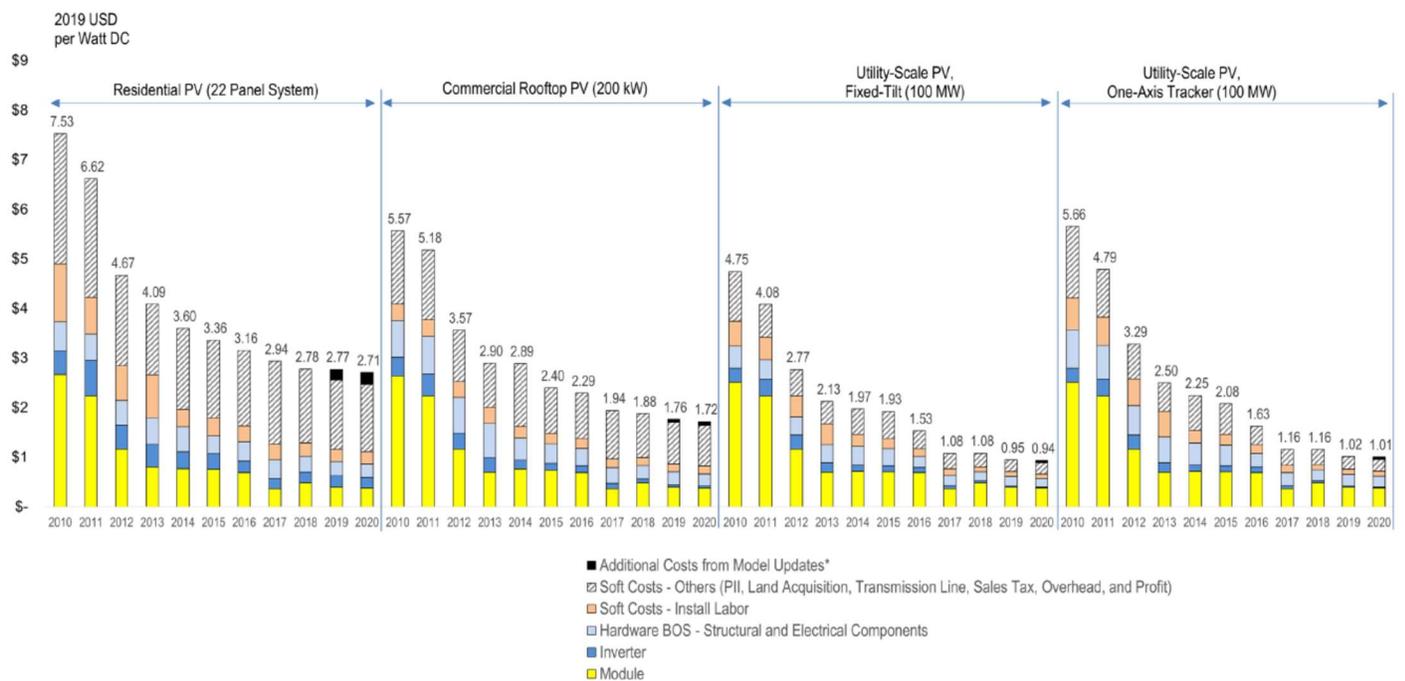
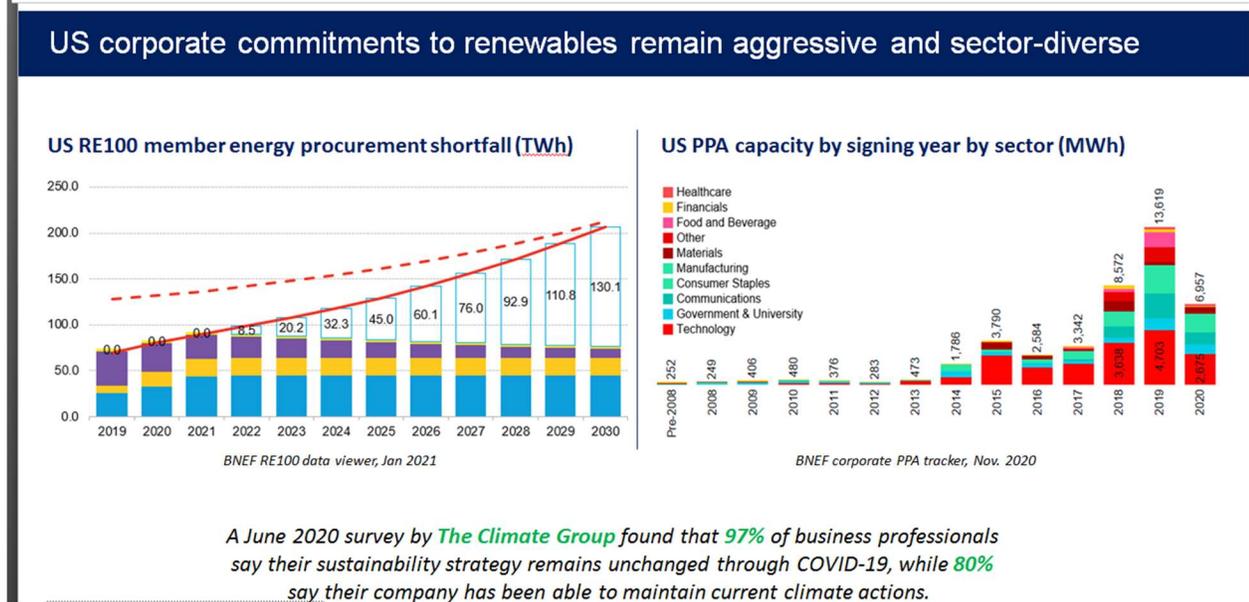


Figure ES-1. NREL PV system cost benchmark summary (inflation-adjusted), 2010–2020

* The current versions of our cost models make a few significant changes from the versions used in our Q1 2018 benchmark report (Fu, Feldman, and Margolis 2018) and incorporate costs that had previously not been benchmarked in as much detail. To better distinguish the historical cost trends from the changes to our cost models, we also calculate Q1 2019 and Q1 2020 PV benchmarks using the Q1 2018 versions of the residential, commercial, and utility-scale PV models. The "Additional Costs from Model Updates" category represents the difference between modeled results. Using the previous costs models, the Q1 2019 and Q1 2020 benchmarks are calculated to be: Q1 2019 = \$2.56/Wdc and Q1 2020 = \$2.47/Wdc (residential PV); Q1 2019 = \$1.71/Wdc and Q1 2020 = \$1.64/Wdc (commercial PV); Q1 2019 = \$0.94/Wdc and Q1 2020 = \$0.89/Wdc (utility-scale PV, fixed-Tilt); Q1 2019 = \$1.01/Wdc and Q1 2020 = \$0.96/Wdc (utility-scale PV, one-axis tracker). Appendix A provides a detailed discussion of the changes made to the models between last year's versions (Fu, Feldman, and Margolis 2018) and this year's versions.

Energy brokers in Ohio see increasing demand for clean power. The following slide shows demand is forecasted to grow and outstrip current supply. The slide provides a snapshot of U.S. corporate renewable commitments, with the left-half showing the shortfall between supply available now and new development needed to meet renewable energy demand. This shows the need for more supply in Ohio (and everywhere) to continue adding to the renewable energy mix, helping to keep prices affordable.



In addition, a 2013 report by PJM’s found that adding up to 30 percent of renewables to the PJM mix would lower costs for fuel, operations, and maintenance, resulting in lower prices across the board. The study shows renewable energy additions do not just lower prices for solar and wind, but also prices for energy across all sources. And [new data from Xcel Energy shows that all-energy source competitive solicitation secured even lower costs than anticipated.](#)

But these renewable resources can provide additional value when they are built across Ohio and can mitigate our state’s transmission costs, capacity constraints, and overall grid congestion. These benefits are even stronger when projects are sited on underutilized properties to increase local tax revenue. Overall, expert studies have shown that distributed and diversified resources can help reduce electricity system costs on a national scale,¹ and this bill would establish a policy allowing many more Ohioans to participate in providing that value.

Conclusion:

Thank you for the opportunity to provide proponent testimony on behalf of HB 450. I am happy to answer your questions.

¹ Vibrant Clean Energy, Why Local Solar For All Costs Less: A New Roadmap for the Lowest Cost Grid (2020), https://www.vibrantcleanenergy.com/wp-content/uploads/2020/12/WhyDERs_TR_Final.pdf.