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The Solar Industry in West Virginia is Only Getting Brighter

Zachary Drennen
Revolt Energy

Zach Drennen is a native West Virginian with a deep family history in the coal industry that dates back to the 19th century. He studied environmental economics at Colorado College before working on numerous organic farms across the United States and South America. Returning to his native state of West Virginia in late 2015, Drennen began working with Coalfield Development on projects focused on economic development and sustainable energy. In 2019, he co-founded Revolt Energy.

Without doubt, the solar industry in West Virginia is taking off. The residential market shows steady, if not precipitous, growth while the commercial and industrial demand for green energy climbs as more businesses realize what solar can do for their bottom lines. The utilities, as well, have begun expanding their green energy portfolio and are actively looking for new large-scale solar projects across the region. The drivers for this regional surge in solar stem from the near perfect mix of improved technology combined with federal tax incentives and a host of creative financing measures. These converging innovations create real opportunity for cost savings for residences and businesses while at the same time addressing the increasing concerns about carbon emissions and climate change.

Most West Virginia solar installers are now booked four to six months out on their residential installation calendars. Furthermore, recent months have uncovered an influx of regional and national solar sales organizations and installers coming into West Virginia to capitalize on the potential growth within the state. The reason is straightforward: the economic benefits of solar keep getting better. Relentless innovation within the industry means that panel efficiencies continue to rise, driving down the price and allowing manufacturers to pack more and more power onto a panel. Whereas five years ago the standard residential panel might have produced 250 to 280 watts, today we routinely install residential panels in the 350 to 400-watt range. That increase in power equates to more watts on the roof and more savings to the homeowner.

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In addition to improved efficiencies, the creative financing that has developed around residential solar has been at the core of the recent growth in demand. Numerous financial institutions now offer solar-specific loans that, through the use of interest buy-downs (often in the form of dealer fees baked into the project cost), stretch over terms of 20-25 years with interest rates between 0.49 and 2.99 percent. The result is a monthly payment that is less than what the consumer was paying for their power. The consumer essentially converts from paying an ever-increasing utility bill to a lower (and fixed!) payment for their own solar generation capabilities. To the average residential consumer, then, power from the sun is cheaper than power from coal.

Within the commercial and industrial sector, the increased demand for solar is driven both by corporate pressure to enhance one's green energy profile and in the continuous drive to improve the business's bottom line. In this case, the federal incentives really make the difference. All residential and commercial solar comes with a 26 percent tax credit, and commercial entities have the added benefit of depreciating the entire cost of the system in year one or over five years following the Modified Accelerated Cost Recovery System (MACRS) accelerated depreciation schedule. Those tax savings equate to roughly 50 percent of any given project cost. Furthermore, the USDA's Rural Energy for America Program (REAP) offers grants to many Mountain State businesses that can offset another 25 percent of project costs. These federal benefits typically allow for payback periods of four to six years and Internal Rates of Return (IRR) between 10 and 18 percent for most commercial solar projects.

Lending institutions have likewise developed creative financing products that make investment in solar all the more feasible. Foremost among them is the Power Purchase Agreement, which functions largely as a lease in which the financial institution owns the solar asset and then sells the power from it to the consumer at a lower rate than what they pay the utility. Banks and lending institutions also offer traditional capital leases and low interest government-backed loans. Savvy business owners are discovering that the combination of improved panel efficiency, federal incentives and these creative financing products immediately improve a business's bottom line while achieving the desirable green energy and carbon neutral standards.

With respect to utility-scale solar development in West Virginia, we are clearly about to see a massive uptick in investment. Both in-state and out-of-state developers are establishing site control over numerous properties with potential solar development, including reclaimed coal mine sites, farms and industrial brownfields. Many of these developers come with their own funding and rely heavily on tax equity investors who seek to gain from the aforementioned tax incentives related to solar development. Utilities, too, have put out to bid large-scale solar fields in their territories, and a number of solar farms are under construction or coming on-line in the very near future.

As with the residential and commercial sectors, the improved efficiencies and creative financing within the industry have effectively made solar the least cost approach to powering one's home, business or region. With the economics that good, the demand for solar has nowhere to go but up. V