

Integrating PV Solar in Roofing: Maximizing Benefits and Efficiency

By Chris Gersch, CEO of Verde Solutions



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As the demand for sustainable energy solutions continues to rise, integrating photovoltaic (PV) solar panels into new or retrofitted roofing systems presents an unparalleled opportunity for roofing contractors and building owners. Not only does this integration offer significant environmental benefits, but it

also provides economic advantages, such as extending the roof's lifespan and qualifying for substantial tax incentives. This article outlines why every roofing project should consider incorporating PV solar.

Enhancing Roof Longevity and Efficiency

One of the primary benefits of installing PV solar panels on a roof is the extension of the roof's lifespan. Solar panels act as a protective barrier, shielding the roof from harmful ultraviolet (UV) rays. These rays can degrade roofing materials over time, leading to increased maintenance costs and shorter roof lifespans. By absorbing and deflecting UV rays, solar panels reduce the wear and tear on roofing materials, thereby extending the life of the roof.

Economic Benefits Through Tax Incentives

In addition to protecting and extending the lifespan of roofing systems, integrating solar panels can significantly reduce energy costs and offer substantial tax benefits. The Investment Tax Credit (ITC) allows building owners to deduct 30% of the cost of installing a solar energy system from their federal taxes. For instance, on a million-dollar roof, if 80% of the roof area is covered with bifacial solar panels, the owner could receive a \$240,000 tax benefit.

Bifacial solar panels enhance this benefit by reflecting sunlight off the reflective layer of the roof onto the panel's underside, effectively making the roof a part of the solar system. This integration maximizes energy production and qualifies the roof-covered area for the tax credit. It is

important to note that building owners should consult with their CPA professionals to maximize these tax credits.

Power Purchase Agreements (PPA): A Win-Win Solution

Power Purchase Agreements (PPA) offer a unique and cost-effective solution for building owners interested in solar energy without the upfront costs. Under a PPA, a third-party financier owns the solar system installed on the roof and is responsible for all maintenance and upkeep. This system is installed at no cost to the building owner, who then benefits from a reduction of 10% to 50% on their electricity rate compared to their local utility.

The financier covers all installation and maintenance costs, paying Verde Solutions to build and maintain the system. In return, the financier takes advantage of all tax and solar renewable credits, while the building owner enjoys instant savings as soon as the system is operational. In many cases, roofing or reroofing costs can be incorporated into the PPA, providing a comprehensive and financially viable solution.

Battery Storage: Enhancing Reliability and Revenue

Battery storage systems are becoming increasingly essential for businesses that require uninterrupted power supply. These systems not only provide redundancy during power spikes and outages but also create potential revenue streams. By storing excess energy generated during peak production times, batteries can supply power during high-demand periods, reducing reliance on the grid and potentially generating revenue through energy arbitrage.

The solar energy company should integrate advanced battery storage solutions into solar installations, ensuring that clients benefit from increased reliability and potential financial returns. Expertise in battery storage technology systems design should meet the specific needs of critical businesses, enhancing both their operational efficiency and financial performance.

Expertise

The solar energy company should provide a comprehensive approach to solar integration. In-house engineers, electricians, and rebate specialists should be uniquely qualified to handle projects nationwide, providing turnkey solutions from design and engineering to installation and rebate management. This expertise ensures that each project is tailored to meet the specific needs of clients, maximizing both environmental and economic benefits.


Innovative Installation Techniques

Recent advancements in ballasting technologies have revolutionized the installation of solar systems on roofs. These technologies often allow for minimal roof penetrations, preserving the integrity of the roofing system. When roof attachments are necessary, they provide additional work and material opportunities for contractors while maintaining the manufacturer's warranty.

Verde Solutions employs state-of-the-art ballasting and attachment techniques, ensuring that our installations are both efficient and durable. Our commitment to quality and innovation guarantees that our clients receive the best possible solutions, protecting their investments for years to come.

Conclusion: The Future of Roofing Is Solar

Incorporating PV solar panels into roofing systems is not just a trend—it is the future of sustainable construction. The

benefits of extended roof life, substantial tax incentives, reduced energy costs, and innovative financing options like PPAs make it a compelling choice for any new or retrofitted roof. 

Chris Gersch is CEO of CRCA Associate Member Verde Solutions. He brings over 20 years of leadership and dynamic understanding of energy markets to the clean energy industry. Gersch began his career as a trader at the Chicago Board of Trade and then utilized his expertise to form eleven businesses, including Verde Solutions, Navigate Power, RxSun, and Fresh Coast Solar.

Verde Solutions employs state-of-the-art ballasting and attachment techniques, ensuring that our installations are both efficient and durable. Our commitment to quality and innovation guarantees that our clients receive the best possible solutions, protecting their investments for years to come. Our team works closely with roofing contractors to integrate solar solutions seamlessly into their projects, ensuring smooth and successful implementation. Contact crgersch@verdesolutions.com or 800-541-1137 to learn more about the full range of benefits of PV solar into your roofing products.



Verde Solutions photo