



## WHITEPAPER

Solar carports are turning underutilized space into clean, affordable energy.



## A parking lot without solar panels = a missed opportunity.

For years, America's businesses, schools, medical centers and other facilities have provided covered parking as a perk for their employees and patrons, particularly in the nation's hottest regions. While carports do an admirable job of keeping cars cooler beneath a canopy of shade, not much attention has been given to the structures' energy production potential – until recently.

Commercial solar providers are finding that carports are an ideal way to incorporate solar panels and parking areas. State of the art carport designs have emerged in which the covers are fully sealed and composed of photovoltaic panels. These fully-integrated solar carports are quickly bringing the era of the “naked” parking lot to an end.

## Covering all the key advantages.

Unlike other common solar installation sites such as rooftops and the ground, carports present virtually no obstacles while providing unobstructed exposure to the sun. This enables installers to efficiently mount angled solar panel modules for optimal positioning.

In most cases, the panels are angled in one of three different configurations depending on geography, climate and local codes. The panels may all be angled upward in the same direction, angled and curved in one direction leading to a flat surface, or very slightly angled (typically to provide shading for a larger number of vehicles).

Of course, another key advantage of solar carports is that they are far more space-efficient than ground-mounted solar systems, requiring no additional land for panel installation. Since optimizing space is always a major consideration for commercial property owners, it's no surprise that solar carports are becoming so popular.

And when it comes to maintenance, solar carports are easier for personnel to access than rooftop systems when service is required. Plus, a solar carport is far easier to maintain than a parking lot. Carports effectively channel rain, hail, snow and debris to the desired area, saving the property owner time and money for removal and maintenance.

## Smart, sensible solar.

Commercial property owners who are considering the switch to solar often limit their choices to roof-mounted and ground-mounted systems because of familiarity. But solar carports often make more sense than either of these traditional options for a number of reasons.

Problems associated with roof size, angle and orientation are eliminated with the new generation of solar carport, in which the “roof” is fully composed of solar panels which can be angled and oriented as required. As stated previously, ground-mounted systems consume valuable land – an issue that is nonexistent with solar carports. Some states even offer incentives for choosing solar carports over ground-mounted systems.

Unlike roof- and ground-mounted systems which strive to be unobtrusive and relatively out-of-sight, solar carports are actually an enhancement of the space they occupy. In addition to protecting vehicles and drivers from heat, rain and other adverse weather, the installation of solar carports makes it possible for business owners to provide added value with options like EV charging stations, integrated lighting and more.

Business owners may be reluctant to construct new solar carports because they worry that the work will disrupt traffic flow through their parking lots or otherwise impede their operations. In reality, solar contractors experienced in carport construction are skilled in controlling and re-routing traffic with no impact on business operations.

## The bottom line: serious savings.

Overshadowing all other benefits and considerations is the number-one factor that is drawing commercial property owners to consider solar energy in the first place: cost savings. While the cost of constructing new solar carports is typically higher than installing roof- or ground-mounted solar energy systems, carports have the advantage of size, enabling the production of vast amounts of electricity to quickly offset the added cost.

When solar carport systems are properly specified for the energy needs of commercial facilities, they often reduce electricity bills by 98% to 100%. All while enhancing the green-friendly goodwill of businesses that show such public support for clean, sustainable solar energy.

That's an important consideration in today's society, which prizes sustainability as an inherent value. A solar carport tells the world that yours is a thoughtful, responsible company that cares about its impact on our environment.

If you're considering solar for your business, medical facility, school district, manufacturing facility, retail center or other location with customer/employee parking, talk to your contractor about solar carports. Often the most efficient choice in space, land, energy and cost.



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