

# Siting and Protecting Solar Energy Systems

**S**oaring energy costs and increased energy consumption have stimulated the need for planned development of renewable resources—particularly solar power systems, which require direct solar access for a prolonged period of time. Selecting a location for, or “siting,” such systems can be challenging in densely populated cities.

Although many states and the federal government have established incentives that subsidize solar development, many industry stakeholders are concerned that patchwork regulation and installation could deter development in areas where it would be most beneficial and efficient. To maximize the potential of solar power and stimulate its growth, state and federal policies not only should incorporate economic incentives, but also should direct the siting of solar systems in suitable locations and protect solar access against negative impacts from future development.

Last year, the federal government

announced a proposed plan to dedicate 670,000 acres of public land to large-scale solar power development. The proposal called for the land to be divided into 24 zones called Solar Energy Study Areas located in solar-rich states such as California, Nevada, Arizona, New Mexico, Colorado and Utah. The Solar Energy Study Areas were selected based on the number of sunlight hours, suitable topography and adjoining land use, as well as their proximity to cities and the electrical grid—all factors that impact the efficiency and profitability of these systems.

Traditionally, most state and local governments have been slow to establish policies to regulate solar development, but this trend may be changing. On June 8, New York City announced it was establishing three Solar Empowerment Zones located on the east shore of Staten Island, in downtown Brooklyn and in Brooklyn’s Greenpoint-Gateway section. The zones were selected based on their need for

electrical capacity upgrades and demand reduction measures. The city is offering a variety of practical and economic incentives to encourage solar development in these zones.

## ECONOMIC INCENTIVES STILL NEEDED

While other cities and states would be wise to follow New York’s lead, more comprehensive legislation may be necessary to affect where private investors choose to locate solar energy systems. With meaningful legislation, cities could take advantage of vast roof space and transform blighted, contaminated and underutilized land through solar development. Current government incentives do not significantly reduce upfront installation costs, nor do they affect the siting of solar systems.

Economic incentives could improve the siting if, for example, statutes established higher electrical rates in conjunction with renewable portfolio standards for solar systems.

Such economic incentives also could be adopted in conjunction with updates to zoning regulations, which typically lag new green legislation and result in roadblocks to development. Updates in solar zones may include exempting solar systems from setback and building height requirements, listing solar panels as permitted obstructions for rooftop and non-rooftop installations, and reducing impervious coverage restrictions. Economic and zoning incentives are necessary to make solar systems more profitable, particularly in urban areas where development is usually more difficult and more expensive.

**PROTECTING SOLAR ACCESS**

Aside from the upfront costs associated with installing solar systems, owners and operators must consider the importance of protecting solar access, which is essential in areas experiencing a building boom. Consider spending a million dollars or more to install a rooftop solar system for a high-rise building only to have a neighbor receive approval to build an even taller building

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that shades the newly installed system. Such shading would significantly reduce the value of the investment.

Few laws protect solar access, and most existing laws have proven ineffective. It is critical for building owners to retain counsel that understands how zoning regulations may affect their systems.

Without legislation safeguarding solar access, the significant investments made in these systems will be protected only through costly litigation, or by the few owners and attorneys that negotiate appropriate agreements protecting this right.

Regulating siting and solar access is necessary not only for the efficiency of these systems, but also to direct solar development to areas where it is most beneficial. If done properly, such regulation would not only spur solar development, but also promote the use of clean, safe and environmentally responsible power.

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