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The Sun is Shining on Distributed Energy

Over the last several years there has been increased interest in green and sustainable building in the commercial real estate market and much of the buzz involves energy. Two key considerations for achieving sustainable commercial buildings include the amount and type of energy that is used, and where and how the energy is generated. As a result, we are seeing more commercial property owners supporting their energy needs with renewable and distributed energy.

Distributed energy is the creation of energy at or very near to the location it is being used. Using on-site energy decentralizes power generation and reduces the amount of energy lost in transmitting electricity to a building.

Rooftop solar arrays and small-scale wind turbines are two types of distributed energy systems. Other examples include biomass, geothermal, and hydroelectric power. Commercial rooftop solar arrays are gaining in popularity and allow for renewable energy development in urban and suburban markets, especially when dealing with existing buildings situated on constrained sites.

When considering the integration of a solar energy system, owners and operators are often concerned whether their building can handle the additional rooftop load. After conducting a structural analysis, many have found that their existing buildings can incorporate a system without investing in structural enhancements.

Additional interest comes from price reductions and incentives. The solar industry has seen an increase in the production of panels and competition, both of which drive the price down. This market shift has resulted in a 40% decrease in solar panel prices over the last few years.

There has been an increase in local incentives and a continuation of federal grant programs. As an example, Xcel Energy's Solar*Rewards program offers its customers a one-time payment of $2.25 per installed watt of generating capacity to offset the cost of solar photovoltaic systems. For a 40kW rooftop solar system that is a savings of $90,000.

At the end of 2010, the federal government extended its cash grant program that allows eligible tax payers to receive a tax credit – or a cash grant in lieu of a tax credit – for 30% of the solar or wind property used in the construction of a solar or wind energy generation system.

Today, owners of commercial real estate are more aware of the advantages of on-site renewable energy. They are taking steps to determine its viability on their properties. The decrease in cost and increase in incentives has jump-started distributed energy, especially in regard to solar. Property owners are literally taking their green building and sustainable initiatives to the next level - the rooftop.

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