



Why is Solar Power So Hot?

Understanding Solar Projects and Incentives

Solar is hot. New Jersey is the country's fastest growing market for solar panel installation and second only to California in photovoltaic capacity. Solar panels are popping up all over New Jersey, from former farms and open space to rooftops. Independent power companies have begun larger installations that will sell electricity into the power grid, while many commercial and industrial property owners are undertaking projects that will generate electricity for on-site use.

New Jersey's Energy Master Plan goal is to generate 30 percent of the electricity from renewable sources by 2020. The State has created incentives to meet this goal. Due to the incentives, installation costs can be recaptured quickly, or alternatively, can be avoided entirely under third party agreements that result in reduced energy costs. Every owner of property with open space or significant rooftop area should be evaluating whether solar (and other renewable energy projects) makes financial sense for them. Because some incentives sunset; some as soon as December 31, 2010, owners should be undertaking the evaluation immediately.

A little background is helpful to understand how a solar project works. Solar panels can be either ground or roof mounted. The photovoltaic materials convert solar radiation into direct current (DC) electricity. Electric equipment transforms the DC current into alternating current (AC) that can then be used on site or, when an excess is produced, pushed backwards into the utility companies' power grid. Electricity generated and used on site greatly reduces energy costs, and electricity sold back to the power grid results in payments from the utility companies.

Solar projects are usually set up under one of two approaches. The first and easiest approach involves a Power Purchase Agreement ("PPA"). In this approach, a third party contractor funds, constructs, installs and operates a system on the owner's property. The owner buys back the electricity at favorable rates that are often significantly lower than normal electric costs. Further, the price of electric is set during the PPA term, so that the property owner is shielded from cost increases during the life of the PPA. The savings delta over the life of the project is the financial benefit to the owner. This approach is

attractive to property owners that (1) do not have up front capital available for the project, (2) are not qualified to construct and manage the project, (3) want to lock in their energy prices and avoid the risk of SREC price changes (discussed below), or (4) cannot take advantage of the federal tax benefits (e.g., non-profit and government owners). Under the PPA approach, the third party operator is the greater beneficiary of the government incentives, but those benefits are passed on to the property owner in part through the reduced electric costs.

The second approach is for the owner to install and operate the solar project. This will require an initial capital outlay for the project. That initial capital cost can be reduced, in part, by two government incentives. New Jersey's Renewable Energy Incentive Program (REIP) provides a rebate for the initial costs for smaller systems (up to 50 kilo watts) for non-residential properties. Due to an overwhelming response, that program temporarily stopped accepting applications in June 2010. However, the State is taking steps to reopen the program to new applicants. Additionally, Federal Investment Tax Credits are available to offset construction costs. The Federal Investment Tax Credit is normally realized over seven years, however for projects completed or for which construction is commenced prior to December 31, 2010; a cash grant in lieu of the Federal Investment Tax Credit can be received in an amount up to 30% of the cost of the project.

In addition to the capital reimbursement incentive programs, New Jersey provides owners of photovoltaic systems with Solar Renewable Energy Credits ("SREC") over the first 15 years of the project life. SRECs are an important incentive for self-operated systems. One SREC is earned each time a solar project generates 1,000 kilowatt hours, or 1 megawatt, of electricity. SRECs are then sold in a competitive market. Electricity suppliers are the primary purchasers of SRECs. To avoid solar alternative compliance payments to the State, they must meet certain solar generation requirements. Those requirements can be met by purchasing SRECs. SREC pricing will, therefore, fluctuate depending on supply and demand. Due to the SRECs and other incentives, the initial capital outlays in a self-operated system can be recouped in as little as five years, with the potential for sizable profit thereafter.

To create further interest, New Jersey has passed favorable land use legislation to facilitate solar installation approvals. State law provides that solar projects are deemed a permitted use in all industrial zones, easing local land use approvals. Further, in all other zones, solar is deemed an inherently beneficial use, which satisfies an important requirement if a zoning variance is needed. Other recent, favorable land use enactments include a provision that solar panels cannot be considered impervious coverage (the portions of a property that water cannot penetrate), which otherwise may have limited the size of ground mounted systems.

As another incentive, New Jersey provides a property tax exemption for certain solar projects. Projects that produce only enough electricity annually for on-site use, known as net metering projects, are exempt from property taxes. Property tax liability is a key component of solar project feasibility determinations and property tax issues arise at every juncture of a

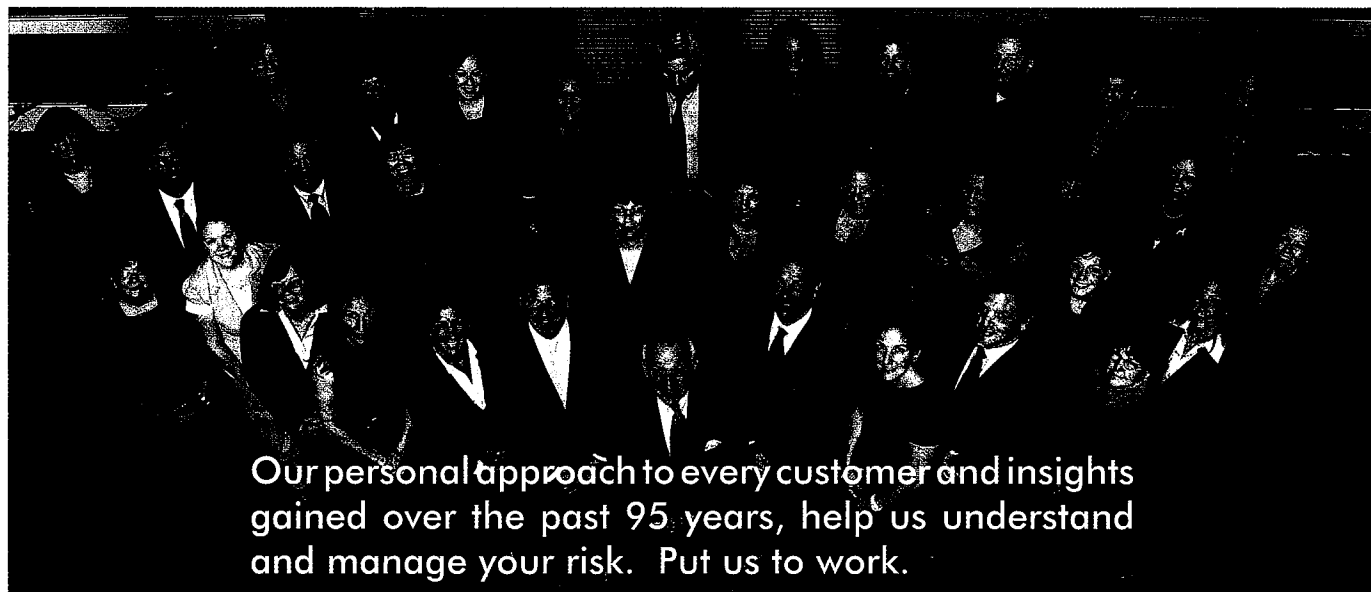
solar energy project. In the feasibility stage, one must estimate (1) roll-back taxes when the project is to be constructed on farmland assessed property, and (2) for non-exempt projects, annual property tax liability estimates. Nearly all of the project may be non-taxable equipment. However, the land value may increase and certain improvements, such as site work and foundations, may be assessed if not exempt. Pre-construction meetings with the municipal tax assessor may help develop firmer property tax budget estimates. After construction, a final satisfactory assessment must be negotiated with the municipal assessor. Of course, if a reasonable agreement cannot be reached, a property tax appeal can be filed.

How does a property owner get started with the evaluation? If an owner is not familiar with solar project installation and operation, they should contact legal counsel with experience in this field. Counsel should be able to provide input and direction throughout the process,

including financial analyses to determine the feasibility and potential capital return; New Jersey and federal incentive qualifications and applications; appropriate transaction structures; regulatory and utility permitting matters; land use approvals; property tax exemptions and other tax issues; negotiation and drafting of Power Purchase Agreements; financing; and, occasional intellectual property advice.

Based on government incentives, solar projects currently provide an attractive return on capital that may exceed other opportunities in the current economic climate. While these incentives last, every commercial and industrial property owner should be evaluating whether a solar project is appropriate for their property. ■

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