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White paper #02: Commercial Solar

Getting Solar: 5 Things Businesses Should Know About Solar Energy

Solar technology is cheaper than ever, while rates for conventional electricity continue to rise. Depending on the situation, internal rates of return of 10 percent or more are possible for commercial photovoltaic (PV) systems. With this in mind, here are 5 things you should know about solar...

(1) Solar panels cost less, thanks to Uncle Sam

The federal government extends a corporate tax credit to businesses that invest in renewable power, including solar PV systems and a number of other solar technologies. The allowable credit is equal to 30% of total installation costs, with no maximum dollar-amount cap. No tax appetite expected in 2009 or 2010? No problem. The American Recovery and Reinvestment Act of 2009 allows businesses to receive a cash grant instead of, and equal to, the 30% tax credit. Equipment must be put into service during 2009 and 2010. Payments are made 60 days following grant approval.

Beyond the tax credit or grant option, the federal government permits businesses to recover investments in solar energy equipment through accelerated depreciation reductions. The Modified Accelerated Cost-Recovery System (MACRS) allows for a 5-year schedule for most types of solar. What's more, the federal fiscal stimulus legislation of 2008 and 2009 includes an additional 50% bonus depreciation for eligible equipment bought and installed in 2008 and 2009.

Finally, an increasing number of state governments are also sponsoring solar incentive programs of their own. Some states—like California, Oregon and New York—provide a per-watt cash rebate. Others, like Colorado, accomplish the same end by engaging the state's main utilities to fund rebates. Still others, like New Jersey, are moving to a production-based incentive system that centers on creating a market for renewable energy credits (RECs). The right mix of state-level and federal incentives can significantly reduce the costs associated with going solar. For more info on these initiatives, visit us at **GetSolar.com**.

(2) Solar panels may be financed through a PPA

Power purchase agreements—or PPAs—are a clever approach to financing the purchase of solar power. Typically, a PPA is a legal contract between two companies: an electricity generator and a host-site owner or lessor. Gap Inc., for instance, is playing host to a 1-megawatt solar power installation at its West Cost distribution center in Fresno, California. The system will take up five acres of land adjacent to the center's campus, and will be financed, owned and operated by MMA Renewable Ventures, LLC, a subsidiary of MuniMae. As outlined in their agreement, Gap Inc. will purchase predictably priced electricity from MMA Renewable Ventures for the next 20 years, reducing uncertainty and shielding the company from future price fluctuations.

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(3) Solar panels can help "shave peaks"

What the heck does this mean? (No, it does not involve mountains or razors.) In brief, the phrase describes the ideal operating conditions—in terms of maximizing value—for solar panels. Large buildings draw a lot of power. Beyond the amount your company pays for the energy it consumes, it may also be subject to something called a "Peak Use Charge." This is because electricity is more expensive during hours of peak demand. So if your building uses a lot of power during this time—typically during mid-day—you're probably being dinged by a stiff surcharge. This amount can sometimes be higher than the charge for the actual energy consumed! Luckily, PV systems typically generate more power during the times of day when demand is the highest. This means that solar panels may effectively reduce the amount of electricity you purchase from the utility precisely when they are charging the most for it. In industry speak this is called "peak shaving," or reducing load during high-demand hours.

(4) Solar panels are a helpful hedge against inflation

Just like every other price in the economy, electricity prices tend to rise over time. As explained by solar financial expert Andy Black, "a big factor in some calculations is inflation in electric rates. Solar is an inflation-protected investment because it offsets electricity costs at the current prevailing rate. As rates rise [into the future], the owner saves even more."[1] To put this in context, let's say your company's monthly utility bill is $20,000. You install a PV system that offsets 30% this amount—in effect, saving your company $6,000 each month. Assuming electricity price inflation of 5% per year, by year 20 that system will be saving your company over $15,000 each month, or upwards of $180,000 annually (in 2029 prices). While not a perfect hedge—i.e., chances are you'll still need to draw conventional electricity from the grid—solar PV systems are an effective means of reducing exposure to electricity price inflation.

[1] Andy Black, "What's the Payback?" *Solar Today*, May/June 2006, p35.

(5) GetSolar is here to help

Part of what we do is to help determine if solar energy makes financial sense for your business. To get started, complete our web form at GetSolar.com. After gathering information about your project and your company's energy usage, we'll help you estimate the size system that would best suit your needs. Then, we'll work to get you matched with our qualified solar installation partners serving your area. We provide our services free of charge—so what are you waiting for? Come check us out!

About GetSolar

At GetSolar.com, we provide a number of free resources, including informative articles on a range of topics, up-to-date solar news and information, and local listings for qualified solar pros. It's all part of our effort to help you make informed choices in the expanding clean energy marketplace.

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