

THE GUIDE TO TALKING TO YOUR LEADERSHIP TEAM ABOUT SOLAR POWER

A solar power installation is a natural choice for colleges, universities, and other institutions: a clean and renewable energy source for your facilities, a practical, low-risk, financially sound approach to cutting your energy costs, and a strong demonstration of leadership in conservation, education, and responsible energy utilization for your community.

Following are some suggestions for starting the conversation with your leaders about your own solar power installation, and for discussing the important financial, environmental, and educational benefits solar can provide for your institution and your community.



STEP 1: MAKE IT CONNECT

Focus on the issues and results that matter to your board.



COMMUNITY LEADERSHIP

Colleges and universities lead the way in implementing education, recreation, and conservation activities for their communities. Solar power generation is now a practical and extremely cost-effective, cost-saving, and environmentally responsible infrastructure improvement that is also a strong, high-profile demonstration that underscores your institution's commitment to conserving our planet's resources and reducing dependence on non-renewable energy.



EDUCATION

Solar power installations will become an increasingly significant part of our future, and especially so for our children's future. An onsite solar array located at your campus provides a meaningful opportunity to help visitors young and old learn more about solar power and its benefits, with your institution's solar power installation becoming a potential destination venue.



COMMUNITY STEWARDSHIP

Your community looks to your institution to set an example for conservation and responsible energy use. A solar implementation generating a significant share (up to 30% or more) of your electrical power requirements makes a strong statement to the community of your commitment to green energy and resource conservation.



FINANCIAL STABILITY

Controlling costs is a key element of financial stability, and without predictable, manageable electric utility costs, your institution's energy overhead costs will increase now and well into the future. Solar power provides you with the long-term price stability to keep your electricity costs low and insulated from potential utility price spikes and ongoing utility rate inflation.

STEP 2: MAKE IT REAL

You can make the case that solar power is a practical, cost-saving, and risk-free project for your institution.



SOLAR IS A PROVEN TECHNOLOGY THAT IS ALSO PROVEN SUCCESSFUL AT COLLEGES AND UNIVERSITIES

There is sufficient sunlight in every state in the continental U.S. to make solar a viable power generation option for colleges and universities across the U.S. A well planned and engineered solar implementation will generate known and predictable electric power output for its entire service lifetime (20 years or longer), and solar installations have been successfully implemented on many campuses across the U.S.



NOT AN IMPLEMENTATION RISK

Through a risk-free Power Purchase Agreement (PPA), where third-party investors pay for, build, and assume ownership and maintenance responsibility for your institution's solar installation, and by working with an experienced, knowledgeable solar implementation partner, you can assure a risk-free, successful solar implementation that meets your targeted performance goals.



SOLAR ENERGY CUTS YOUR ENERGY COSTS

Increased efficiency and dramatically lower solar panel prices make the cost of solar power generation lower than the cost of electricity generated by your local utility. Innovative new funding programs, such as a Power Purchase Agreement, enable you to pay a predictable, long-term electric power rate that is and will continue to be lower than your local utility power rates for decades to come.



NOT A FINANCIAL RISK

Through a PPA, there are no capital costs to your institution for implementing a solar installation, and your institution pays a low, ongoing rate for its electricity needs during the 20-plus year lifetime of the installation. You can incorporate additional protections into your PPA agreement to guarantee the performance of the solar implementation and eliminate all financial risk from your solar project.

STEP 3: MAKE IT A PRIORITY

Without an onsite energy generation solution, your college or university has no control over present and future increases in electric utility rates.



RIISING ELECTRIC RATES ARE AND WILL BE A COST ISSUE FOR YOUR INSTITUTION FAR INTO THE FUTURE

Electric utility rates have increased approximately 20% since 2006 and are predicted to rise well into the future. Additionally, severe changes in weather, such as extremely cold winters and hot summers, cause your campus facilities to increase their electricity usage and push your institution into higher peak utility rate schedules, adding further significant price increases. By generating up to 30% or more of your electrical power needs, a solar implementation flattens out your electricity usage during these periods, insuring stable, predictable long-term costs.



CHOOSE AN EXPERIENCED INSTALLATION PARTNER TO ELIMINATE YOUR RISK AND ENSURE A SUCCESSFUL SOLAR IMPLEMENTATION FOR YOUR COLLEGE OR UNIVERSITY

An experienced and reliable solar implementation partner will carefully assess and evaluate your institution's energy use, and will configure a solar implementation to provide long-term performance and energy output to cut your energy costs and keep your energy rates low, stable, and predictable. A solar implementation partner can also structure a funding and implementation plan to eliminate your risks and maximize your long-term energy savings.

GEM Energy has demonstrated proven ability and leadership in building solar installations for colleges, universities, and other organizations, and we can be your partner in assuring a successful and risk-free solar implementation that meets your diverse goals.

Contact us to learn more about how we can help you plan and implement a successful solar power implementation for your institution.

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GEM Energy is ranked 26 in Solar Power World's 2017 Top 50 Commercial Contractors and offers solar project development including financing, design, construction and service.



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HOW THE TOLEDO ZOO MANAGEMENT AND BOARD WORKED TOGETHER TO LAUNCH A SUCCESSFUL SOLAR INITIATIVE

Founded in 1900, the Toledo Zoo has become one of the community's leading family attractions and, under the leadership of its non-profit owner, the Toledo Zoological Society, its vision and leadership have made it a national leader in animal conservation.

Several years ago, with the approval of local voters to supply additional renovation funds to its facility, Toledo Zoo management undertook a mission to utilize renewable energy sources to generate a significant share of its energy needs, and ultimately to demonstrate the benefits and utility of solar, wind, and geothermal power to its community.

After succeeding with small-scale demonstration projects - e.g., solar arrays for its ticket booth area and a SolarWalk around its parking lot perimeter - The Toledo Zoo now boasts a massive 2.1 megawatt solar array, installed on 22 acres of a nearby reclaimed industrial site.

With this initiative, the Zoo has proved the viability of renewable energy, and is now generating approximately 30% of its annual electricity requirements from solar.



LEADERSHIP INVOLVEMENT IN A SUCCESSFUL SOLAR IMPLEMENTATION

The Toledo Zoo's solar implementation required strong collaboration between its executive team and Board of Directors, with a focus on these critical issues:

EXAMINING ELECTRICITY COSTS AND CONFIRMING FUTURE UTILITY COST INSTABILITY:

Before committing to its solar implementation, the Zoo carefully examined its own historical electricity costs and usage, and confirmed the likelihood of significantly higher future electric utility costs. This analysis was a major motivation to the Zoo in seeking new approaches to lock in lower electricity rates in the face of higher utility prices in the future.

NEGOTIATING A NO-COST AGREEMENT TO BUILD THE SOLAR INSTALLATION:

The Toledo Zoo's leadership team and Board of Directors carefully negotiated a Power Purchase Agreement (PPA), an innovative financing arrangement for solar power installations. In the Zoo's PPA, third-party investors funded all capital costs of the solar implementation, with no out-of-pocket costs to the Zoo, in exchange for the Zoo paying stable, set electric rates which are lower than projected utility rates for the 20-year term of the Agreement. Under the PPA, the Zoo receives the benefits of low, predictable, long-term electric rates without having to pay the capital costs of the solar installation.

ENSURING PERFORMANCE AND MINIMIZING RISK:

The executive team and Board of Directors also took additional steps to lock in the lower utility rates promised under its rate agreement, and to guarantee performance from both the solar installer and third-party investor group who funded and owns the solar site, to virtually eliminate any liability or risk of future price instability from the solar installation. The fact that long-term energy output from solar panel installations can be calculated with a high degree of precision, combined with GEM Energy's proven performance as a solar implementation partner on previous solar projects with the Zoo, inspired confidence in the project among all involved parties.

By developing a solid understanding of its present and projected electricity costs, and by partnering with a knowledgeable, experienced solar implementation partner like GEM Energy, **Rick Payeff, the Toledo Zoo's Facilities Director** says the management team and Board of Directors were able to "put all the pieces together" to insure that the Zoo's solar project met its conservation leadership commitment to the community it serves.

According to the **Zoo's Executive Director, Jeff Sailer**, the Board believes that "Practicing the wise use of our natural resources through green alternatives such as the solar array is an important component of our mission: Inspiring others to join us in caring for animals and conserving the natural world."

