Provide a Unique Learning Opportunity

Schools have an enormous incentive to go solar, not just to save money, but to create an energy-and sustainability-conscious student body. Since it is important that students be aware of the huge environmental challenges we face this century, schools serve as stewards of sustainability and cornerstones of green initiatives that benefit their community. With solar systems from IPS Solar, students are able to see first-hand how sunlight is converted to electricity and solar installations can be integrated into a school’s math, science, and technologies programs to improve test scores in those fields.

The Sunrise Program

IPS Solar has been installing commercial solar power systems at K-12 schools, colleges and universities for over a decade. After a few years, we began to hear a common question from school administrators and teachers: “We have this awesome solar system on our campus — can you teach us about it?” IPS Solar embraced the opportunity to educate the next generation of energy leaders and created the Sunrise Program. This program is dedicated to developing innovative and engaging educational content about solar energy.

We offer schools complete STEM programs designed to spark students’ curiosity and give them the tools they will ultimately need for success. Our Sunrise Program offers schools three approaches — classroom presentations, fully developed STEM curricula and professional development – that can be mixed and matched to best serve each community.
SCHOOL PROGRAMS

Elementary School Curriculum
Everyone requires a basic understanding of the nature of energy, what it is, what it does, how it is produced, etc. Our Elementary School Curriculum is designed for 4th and/or a 5th grade audience. The lesson starts with a definition of energy and how it relates to work. The early focus defines, then compares and contrasts potential and kinetic energy. Renewable Energy is identified and explored. Solar Energy is introduced and described. Energy transport wraps up the multi-day lesson plan with several embedded activities.

Middle School Curriculum
The Inspiring Science Education Community Portal is utilized for a Middle School lesson that can easily be modified for High School. This curriculum explores Solar Photovoltaics through an inquiry based learning approach. The lesson includes embedded videos, activities and quizzes, employing formative questioning strategies that explore students level of understanding, not simply their ability for recall. Data collection and analysis are integral to this curriculum.

High School Curriculum
Photovoltaic Power Potential is a four day, activity and analysis based, High School lesson that can be utilized for Middle School as well. The activity is inquiry based and the curriculum includes a worksheet for formative assessment as well as an end of unit quiz that can be summative. Students are asked to explore their electric use at home and/or at school, then determine the potential offset through the introduction of solar. Students also explore the costs/benefits of installation of a solar array.

PV Data Analysis
Every school with solar on the roof or as a member of a Community Solar Garden has access to an incredible amount of data related to their Solar Photovoltaic energy collection. Teachers and students have the opportunity to analyze their photovoltaic electric production as a function of multiple environmental factors. This curriculum provides a road map for data acquisition, data analysis, and presentation of results. An Excel spreadsheet is just one format that is a great tool to facilitate the analytics.

Visit: www.ips-solar.com/schools