



# High School Photovoltaic Design Competition

June 3-8, 2012

Convention Center, Austin, Texas

## **Background:**

The 38th meeting of the Institute of Electrical and Electronic Engineers Photovoltaic Specialists Conference will be held in Austin, Texas in June, 2012. The web site is (<http://www.ieee-pvsc.org>). The projects will be on display Sunday June 3 as part of the 'Solar Day' activities at the convention center and during the conference until June 6. An awards and recognition ceremony will be held.

The High School Photovoltaic Design Competition has been held in conjunction with the IEEE PVSC for the past 20 years. The Conference itself attracts about 2000-3000 scientists, engineers, and government decision-makers from all over the world. This venue provides high school students that participate in the competition with direct interactions with world-famous technologists who work in this area.

## **The Competition:**

For the Photovoltaic Design Competition, the students are asked to work on their projects (under the supervision or mentoring of a faculty member, for example) and display their project at the Conference in June, 2012. The design projects must demonstrate the use of photovoltaics in a practical application, using only photovoltaics as the power source for the project. A panel of experts judges the projects, and three awards are made: \$750, \$500, and \$300 for first through third place. Each participant is provided with a certificate.

## **Who may Participate?**

Austin area high school students are eligible to participate, provided they will still be high school students in May, 2012. Only one team is allowed per high school unless less than 4 schools have agreed prior to November 2011.

## **How long does it take?**

In our experience, the development of the project takes about a semester of time. Projects have included PV powered recreation areas; PV powered warning devices for flood areas; lab results from a student project making cells at a local company; and PV powered robots; to name a few. The idea and project development are left entirely to the high school team. The only constraint on size is that it must be able to be displayed in an 8 ft x 6 ft exhibit area at the conference. A table and power to the table will be provided. The students are judged on originality, quality of the project, and the ability to communicate the results.

## **Project Seed Money Available:**

The Conference Committee has agreed to provide a stipend to each of the school teams that participate in the design competition (to a maximum of 15 teams) of \$250, to be used for the construction of their project. We will also provide photovoltaic cells and a module to each team if desired.

**How to Participate:** If you are interested, please provide your name, the name of your High School and your mentor contact information (name, email address and fax number) to the following email address: [keith.emery@nrel.gov](mailto:keith.emery@nrel.gov); phone 303-880-291