

**SOLAR PV: MODULE PERFORMANCE may advance the following
NEXT GENERATION HIGH SCHOOL SCIENCE STANDARDS**

FORCES AND INTERACTIONS

Students who demonstrate understanding can:

HS-PS2-5. Plan and conduct an investigation to provide evidence that an electrical current can produce a magnetic field and that a changing magnetic field can produce an electrical current.

ENERGY

Students who demonstrate understanding can:

HS-PS3-1. Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.

HS-PS3-3. Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.

SPACE SYSTEMS

Students who demonstrate understanding can:

HS-ESS1-1. Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy that eventually reaches Earth in the form of radiation.

WAVES AND ELECTROMAGNETIC RADIATION

Students who demonstrate understanding can:

HS-PS4-5. Communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.

INTERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS

Students who demonstrate understanding can:

evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

HUMAN SUSTAINABILITY

Students who demonstrate understanding can:

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

ENGINEERING DESIGN

Students who demonstrate understanding can:

HS-ETS1-1. Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

HS-ETS1-2. Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.