

SOLAR PV: BALANCE OF SYSTEM AND SYSTEM DESIGN may advance the following

NEXT GENERATION HIGH SCHOOL SCIENCE STANDARDS

ENERGY

Students who demonstrate understanding can:

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.

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.

INETERDEPENDENT RELATIONSHIPS IN ECOSYSTEMS

Students who demonstrate understanding can:

HS-LS2-7. Design, 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.

HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.