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**How is Solar Energy a developing solution for human energy consumption?**

NGSS Core Question: ETS1B: Engineering Design

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| **Instructional Objectives**  *Students will be able to* | **Learning Outcomes**  *Students will demonstrate the measurable abilities* | **Standards**  *Students will address* |
| IO1: Describe how solar energy technology can have deep impacts on society and the environment by comparing real-world examples of solar technology on Earth and in Space. | LO1: Explain how photoelectric materials emit electrons when they absorb light of a high-enough frequency by examining electromagnetic properties and identifying visible lights place in the spectrum. (PS4.B)  LO2: Analyze the ways in which solar energy technology helps to solve real-world energy resources and climate change problems by describing the problem, matching it with a solar technology solution, and listing potential secondary & tertiary impacts. (HS-ESS3-4) | **PRACTICES:**   1. Constructing Explanations and Designing Solutions 2. Obtaining, Evaluating, and Communicating Information 3. Engaging in Argument from Evidence Scientific Knowledge is based on Empirical Evidence   **DISCIPLINARY CORE IDEAS:**   * ETS1.B: Engineering Design * PS3.B: Conservation of Energy and Energy Transfer * ESS3.C: Human Impacts on Earth Systems   **CROSSCUTTING CONCEPTS**   1. Influence of Science, Engineering, and Technology on Society and the Natural World. |