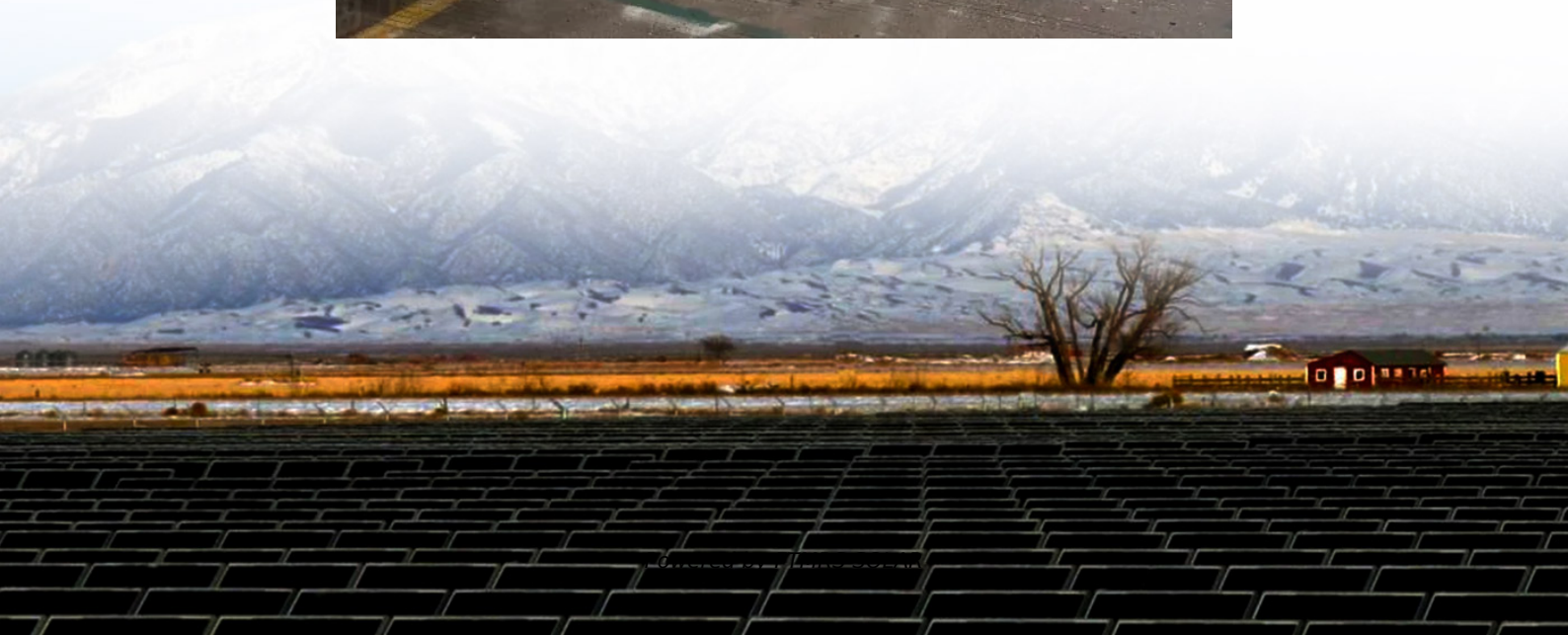


Solar energy is a closed system





Overview

What is a closed system?

A closed system is defined by its minimal exchange of matter, not energy. Energy is continually flowing in and out of the system; this energy flow is what drives all the processes within the Earth's various spheres. Q3: What would happen if the Earth were a truly isolated system (no exchange of energy or matter)?

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Is the Solar System a closed system?

Although there is no exchange of mass, mechanical work and heat transfer occur. Solar System : On an astronomical scale, the solar system can be considered a closed system in terms of mass, since most celestial bodies maintain their orbit without exchanging significant mass. However, energy continually flows from the Sun to the planets.

Is the Earth System a closed system?

The earth system as a whole is a closed system. The boundary of the earth system is the outer edge of the atmosphere. Virtually no mass is exchanged between the Earth system and the rest of the universe (except for an occasional meteorite). However, energy in the form of solar radiation passes from the Sun, through the atmosphere to the surface.

Can a closed system exchange energy and matter?

Isolated systems cannot exchange energy and matter. Earth as a closed system means that mass cannot be transferred in and out of earth's system because of presence of gravitational forces but energy is allowed to move in and out. For example, the cryosphere may melt and refreeze, but no new water is added to it or to the hydrosphere.



Solar energy is a closed system

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2.3.2: Types of Systems

Closed Systems Figure 2 3 2 1: The Earth as a closed system The earth system as a whole is a closed system. The boundary of the earth system is the outer edge of the atmosphere. ...

The Earth is an open and closed system

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