Lunar vertical solar array technology

Overview

The recent VSAT project developed prototype VSAT systems composed of autonomously deployable vertical arrays on masts of up to 20m in length in order to capture near continuous sun light at the lunar south pole. And we are at the forefront of addressing this need through the development of Vertical Solar Array Technology (VSAT), an innovative solution designed to harness solar energy efficiently in the challenging lunar environment. VSAT's ability to provide continuous and sustainable power is foundational. NASA is planning a lunar landing near the moon's South Pole in the 2028 time period, this mission is to be followed by the establishment of a lunar base early in the 2030's. Standing at 30m tall, they will have the ability to generate 50kW of power from the dual 20-meter-long solar panels. Existing solar array structures and deployment system technologies are designed for either zero-g or horizontal surface.

Lunar vertical solar array technology

Astrobotic's LunaGrid's Vertical Solar Array Technology

Astrobotic 's Vertical Solar Array Technology (VSAT) is a key technology that will be used to harness solar energy for the company's commercial, lunar power grid that is being prepped to ...

Space Technology Mission Directorate

The Vertical Solar Array Technology (VSAT) project is focused on the development of solar array technologies necessary for sustained presence on the lunar surface circa 2028.

Lockheed Martin developing vertical solar arrays for the Moon

Lockheed Martin says the technology is capable of providing continuous and sustainable power for a range of lunar operations. American defense and aerospace manufacturer Lockheed ...

Lockheed Martin unveils solar power array for Artemis program

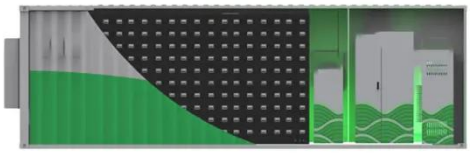
Under a program known as Lunar Vertical Solar Array Technology (LVSAT), the three companies developed vertical solar arrays designed to be deployable, relocatable and self-leveling --

Astrobotic Awarded Lunar Power Study with VSAT-XL

This new array will build on the 10kW lunar VSAT already in development at Astrobotic under an existing NASA contract. VSAT-XL, like its smaller cousin, is a deployable, relocatable, self ...

NASA TechPort

The recent VSAT project developed prototype VSAT systems composed of autonomously deployable vertical arrays on masts of up to 20m in length in order to capture near continuous sun ...



Lunar Dust Considerations for Vertical Solar Arrays

NASA's Vertical Solar Array Technology (VSAT) project is focused on enabling robust, reliable power generation

through solar energy capture in support of the Artemis program's objective to return ...

Powering the Moon: Vertical Solar Arrays Charge the Way

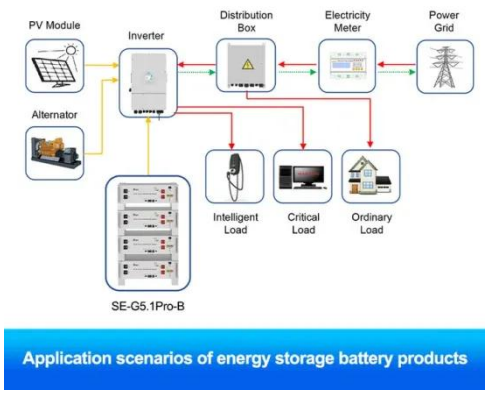
And we are at the forefront of addressing this need through the development of Vertical Solar Array Technology (VSAT), an innovative solution designed to harness solar energy efficiently in ...

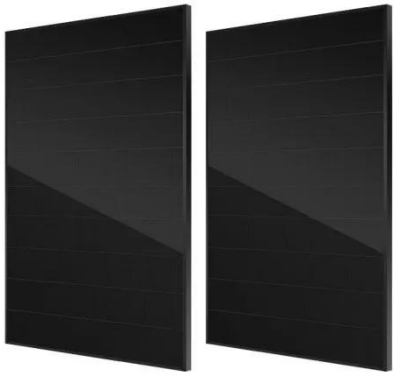
VSAT-XL for Nasa's lunar power infrastructure , Electronics Weekly

Astrobotic, a lunar logistics company, has won a Nasa contract to develop its Extra Large Vertical Solar Array technology (VSAT-XL). Standing at 30m tall, they will have the ability to generate ...

Astrobotic Developing XL Solar Array Tech for Lunar Power

It generates power with a set of deployable/retractable solar array blankets raised over 10 meters above the lunar terrain, ideal for placement at the lunar south pole where the sun circles the ...





Lockheed Martin unveils solar power array for Artemis ...

Under a program known as Lunar Vertical Solar Array ...

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