

# **Cost of Grid-Connected Solar-Powered Container Terminals for Airports**





## Overview

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What is a terminal one solar array?

The Terminal One solar array consists of 13,000 panels spanning the terminal roof, generating 6.63 MW of electricity. The array will work in tandem with 3.84 MW of fuel cells and a 1.5 MW (3.34 megawatt-hour) battery energy storage system, creating one of the most advanced microgrids in the country.

What is a solar grid connection capacity?

- Grid connection capacity = 100kVA. The figures below show the battery behaviour in summer and winter, to observe the impact of seasonal PV solar variation. Performance of a system with 120kWp of PV solar capacity in Summer, showing the small amount of grid energy needed to supplement the solar power.

Do airports need a microgrid?

In an environment where airports face increasing energy demands, delayed grid connections, and the risks associated with grid outages, microgrids offer a practical solution. “Plugging into the grid takes longer, costs more, and isn’t always reliable or clean,” said Jana Gerber, President of Schneider Electric Microgrid North America.

How can a solar energy system improve airport energy management?

By combining solar power, fuel cells, and battery storage into an automated system, the project sets a new standard for airport energy management. The use of an EaaS model further enhances financial and operational efficiency, reducing risk and ensuring long-term performance.



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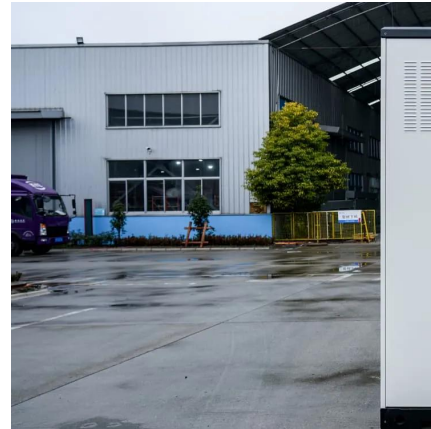


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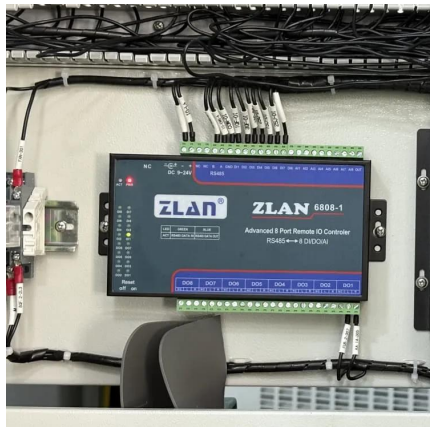
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## FPS29, SweGRIDS

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PDF , On May 18, 2020, Christine Harnischmacher and others published Secondary Use of a Smart Electric Container Terminal: Scenario Analysis on relevant Cost Drivers , Find, read and ...

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