

# Advantages and disadvantages of energy storage cold chain containers





## Overview

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Do refrigeration systems reduce the environmental impact of cold chain logistics?

As the required transportation and storage temperature decreases, refrigeration systems must provide a higher cooling capacity, which leads to increased energy consumption, emphasizing the importance of adopting advanced, energy-efficient refrigeration solutions to mitigate the environmental impact of cold chain logistics.

What are the advantages of portable cold storage?

In recent years, there has been a substantial increase in the usage of portable cold storage technologies, as the demand for flexible and mobile solutions for storing perishable goods has expanded. The advantages of portable cold storage units include energy efficiency, portability, and use.

How can we reduce the environmental impact of the cold chain?

The cold chain is essential to the safe transport of perishable goods but has a high environmental impact. This Review discusses technologies and strategies that could reduce this impact, through refrigerant selection, thermal energy storage and renewable energy integration.

What is cold chain transport?

The cold chain can involve refrigerated transport via road, sea and air routes, storage in warehouses, and eventually storage in retail markets before consumption. Different technologies are used throughout the cold chain, but vapour-compression refrigeration (VCR) is widely used to provide cooling 5.

Fig. 1: Cold chain transportation temperatures.



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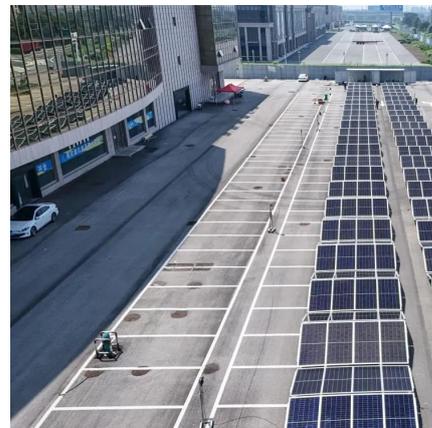


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