

# **Fast charging using foldable containers on highways**





## Overview

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How profitable is a stationary storage with a fast charging station?

We compare different battery technologies and distinguish two use cases: fast charging in cities and along highways. Our results indicate that the profitability of a stationary storage installed together with a fast charging station depends on various parameters.

Can stationary storage be used at Highway fast charging stations?

Nevertheless, the use of a stationary storage at large highway fast charging stations is not always profitable and thus might need additional incentives or serve other purposes such as solar PV integration (onsite) or grid stabilization. Fig. 9. TCO of a 2,000 kW stationary storage (highway; use case 2). Own illustration.

Does a highway charging station provide fast charging?

In contrast, a highway charging station provides fast charging to enable long distance trips, analogous to highway fuel stations. Here, we analyze a highway charging station at a busy motorway with a high demand for fast-charging events (cf. Jochem et al., 2016b).

What are the use cases of fast charging stations?

In our analysis, we distinguish two different use cases of fast charging stations. The first use case is fast charging stations in cities that might be used as an alternative to overnight home charging by vehicle drivers without private charging options.



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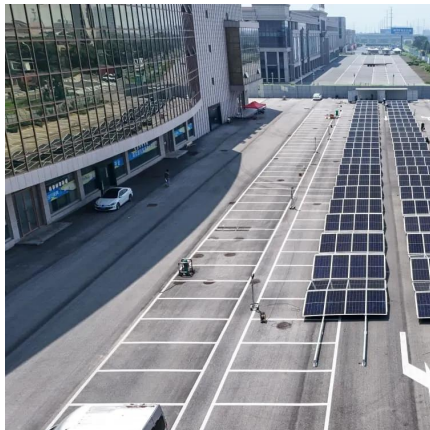
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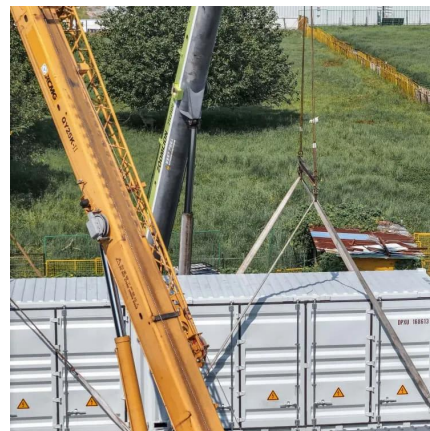


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