

# Powering the Next Generation of Cranes: Why ESS is the Smart Choice

**Atlas Copco**



## APPLICATION

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Cranes are the undisputed heavy lifters of many sectors such as construction, dock, and shipyard operations. Cranes are known for their demanding and highly variable power profiles. Their high-power demands often make them unsuitable for direct grid connections, especially in areas with limited or no mains supply.

## CHALLENGE

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Crane machines energy demands pose significant challenges. What powers these essential machines? Traditionally, diesel generators have been the go-to solution, providing reliable power in even the most remote locations. But these machines contribute to high fuel consumption, emissions, and operational costs. Modern large cranes, such as those used in ports, require approximately ten times the nominal power to start.

## SOLUTION

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An Energy Storage System, is specifically designed to manage peak loads. It can instantly discharge stored energy to meet the crane's sudden demand, protecting the generator from strain. Atlas Copco's Energy Storage Systems, specifically the ZBC and ZBP models, are ideal for powering tower cranes. These ESS solutions allow for hybrid setups, where the battery system works in tandem with a generator. This configuration ensures efficient energy use, peak shaving, and reduced reliance on diesel generators. When used in a hybrid setup with a smaller, more appropriately sized generator, the Energy Storage System allows the generator to run at its most efficient speed.

## IMPACT

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By reducing reliance on diesel generators, contractors can lower fuel costs, minimize emissions, and enhance overall performance. Atlas Copco's ZBC and ZBP models, with their advanced energy management and remote monitoring capabilities, are the ideal solutions for this transformation. As the construction and logistics industries continue to prioritize efficiency, adopting Energy Storage Systems for tower cranes is not just a smart choice, it is a necessary one.