

How to save energy costs without expensive investments



Auf einen Blick

- Increase in electricity prices and price volatility
- Manufacturing control as a means of energy cost reduction
- Novel ECO-S sequencing method considers slipping and electricity prices
- Double-digit savings

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IPH | To reduce electricity costs, companies do not necessarily have to spend a lot of money. At the IPH, researchers have developed a method that simply through smart manufacturing control reduces energy costs to a considerable extent – by making use of energy price fluctuations.

The more wind and solar energy is fed into the grid, the wider the energy price fluctuations. Industrial companies can benefit from this fact by carrying out highly energy-consuming tasks during low-price periods. In this way, electricity costs can be reduced without the need for costly investments.

For this purpose, researchers at the Institut für Integrierte Produktion Hannover (IPH) have developed a novel sequencing method for the scheduling of tasks. The ECO-S (Energy Cost Oriented Sequencing) method considers two factors: task priority and energy requirement.

In a simulation model, the researchers have compared the newly developed method to the FIFO (First-In, First-Out) scheduling method. The result is: With the ECO-S method, as many tasks as with the FIFO method were treated in due time - together with a reduction of energy costs of up to 13 percent.

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