

## Fareva

### Fork Lift Opportunity Chargers

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#### Overview

*Over the past few years, most of the Fareva forklift fleet has been replaced with forklifts that are charged via “smart chargers” or opportunity chargers. It is estimated that this new fleet will save Fareva about \$23,000 in electric costs and generate 220 US tons of CO<sub>2</sub> less each operational year.*

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#### Fareva’s Forklift Charger Replacement Program

Fareva has undergone an effort over several years to update their forklift fleet with forklifts that are charged via “smart chargers” or opportunity chargers. The opportunity chargers chosen by Fareva are the Ametek 800EC3-18SP. Fareva utilizes 26 of this model at their facility. Battery charging for forklifts can be a time consuming task, and in a warehouse, time is money. Opportunity charging systems allow the batteries to be charged several times during a shift. This enables one battery to be used longer than a traditional battery. Not only does the limited charging time increase efficiency, but the overall savings encouraged Fareva to pursue these opportunity chargers. Conventional chargers cost approximately \$3,400, while the opportunity chargers, cost approximately \$4,300; however, the additional annual site savings outweighed the startup costs. It is estimated that this new system will reduce Fareva’s electricity costs by \$23,000 and reduce CO<sub>2</sub> generation by 220 US tons each year.



Forklift plugged in to opportunity charger.



### **Were changes needed to get staff up to speed on the new system?**

There was no need to update the site SOPs because the Forklift Safety document already outlined the general forklift charging process, but was not specific to the type of charger. Opportunity chargers can charge about 80 percent of the forklift during downtime, taking approximately 30 minutes instead of the eight hours to charge a conventional forklift. Since opportunity chargers reduce the time it takes to charge, they are well suited for warehouses with more than one shift. Once a week the opportunity chargers should be charged to 100 percent for them to be fully equalized.

All new charger related topics are discussed with Fareva staff members in the practical and hands-on forklift trainings, which are performed by on-site subject matter experts. Fareva has a separate training to ensure that forklift operators are well educated on the process of supplying water to forklift batteries. With less time consumed changing spent batteries, staff can save time as well as increase productivity and safety.

### **What other energy saving efforts has Fareva implemented?**

The Fareva Energy Council continues to conduct Energy Audits on specific areas of the plant or pieces of equipment to find ways to reduce their environmental impact. In 2021, Fareva's Energy Council focused on employee awareness and engagement by adding signage to remind employees to turn off the lights, televisions/projectors, and equipment. When applicable, employees are encouraged to turn off equipment to conserve energy during inactivity. Regular conservation reminders are distributed periodically to site personnel to increase involvement. The Energy Council also worked with the Facilities Maintenance team to continue the relamping project. In 2021, new LED lights were installed in 17 different locations across the site. Calculations indicate that this relamping will save Fareva an additional \$12,340 each year and approximately 125 US tons of CO<sub>2</sub> will not be generated because of electrical savings.