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## MOTIVE POWER CASE STUDY | CUSTOMER “U”

# GUARANTEED POWER<sup>®</sup>, EVEN FOR COLD STORAGE ENVIRONMENTS

### Situation & Challenge

Powering lift trucks in a cold storage environment (below 30 degrees Fahrenheit) presents challenges. Voltage readings are easily corrupted and data interchange between the truck’s battery discharge indicators (BDIs) and battery is complicated. Blast freezers (below 0 Fahrenheit) multiplies these complications even further.

One company that operated within cold and freeze environments operated in 100% battery swap mode, changing batteries two to three times per shift. Trucks were constantly lined up — often four to six trucks deep — for battery changes. With 120 trucks, and the average time required to change a battery at over 30 minutes, the productivity loss was staggering.

Realizing it simply could not power its truck fleet, the company reached out to its network for battery expertise help, and soon called Concentric.

### Solution

Concentric placed first generation battery data recorders from Europe on all batteries and studied the operations for weeks. The findings were clear and conclusive:

- Corrupted voltage readings inherent in a cold and freeze application, combined with the misapplication of a charger model for a cold environment, meant the batteries were not fully charged. Expected charge times of eight hours were erroneously cut short to two-three hours.
- The truck’s BDIs were not calibrated to a cold environment.
- When properly equipped and calibrated, the customer requires only 1.8 batteries per truck (two batteries per truck on sit-downs and 1.5 batteries per truck on pallet jacks) rather than the current three batteries per truck.

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A talented company engineer studied the data in collaboration with Concentric and agreed with the findings. Still, the company was concerned with the reduction in the number of batteries.

To reassure the company, Concentric offered its first GuaranteedPOWER® program (circa 2002). If Concentric was wrong in its assessment of the company's power needs, then it would purchase more batteries at its own cost.

#### **Solution**

Enrolling in GuaranteedPOWER®, the company improved productivity and saved money. Specifically, the company:

- Reduced the number of batteries from more than 350 to less than 230
- Increased the lease term on all stand-up forklifts from two to four years

Today, the company is in the third renewal period of its original lease with Concentric and implemented GuaranteedPOWER® at all facilities countrywide. Now powering nearly 400 of the company's trucks, Concentric is proud to be the company's power partner.