

# PRESET PLUS<sup>®</sup> ELECTRIC HUB

## In-Wheel Electrification

### Industry Leadership and Expertise

Evolving regulations pressure fleet managers to strike the right balance between improved fuel economy, reduced emissions, and performance. With a 50-year legacy of innovative design, engineering, and manufacturing, ConMet has formed ConMet eMobility, a business unit dedicated to leading the charge in electric solutions for the commercial vehicle market.

### Electrification Building Block

ConMet eMobility meets the need for clean energy technology, with its first innovation - the Preset Plus<sup>®</sup> Electric Hub (eHub). The eHub is an in-wheel electric motor packaged with a ConMet PreSet Plus<sup>®</sup> hub assembly. The lightweight, modular, electrified wheel end captures wasted braking energy and repurposes it as electricity to provide robust, decentralized propulsion and auxiliary power for a myriad of commercial vehicle applications.

The eHub captures energy from coasting and braking that would otherwise go wasted as heat from wheel end motion and friction brake application. The electricity is stored in a high-capacity battery and then shared with other parts of the vehicle as needed. The eHub is capable of generating up to 156 kW in a single braking event!



### Zero-Emission Refrigerated Trailer

The ConMet eMobility team leveraged the flexibility of the eHub design to produce North America's first in-wheel motor electrification system for zero-emission refrigerated trailers.

Benefits of this zero-emission trailer system:

- ▶ Eliminates the need for diesel fuel for the TRU
- ▶ Improves overall vehicle fuel efficiency
- ▶ Regenerative power eliminates the need for shore power
- ▶ Reduces friction brake wear
- ▶ Allows for access to emission and noise restricted urban zones
- ▶ Can be paired with an electric tractor for a fully zero-emission vehicle

### How it works

#### Power to cool

The stored battery energy can power an electric TRU to keep the trailer cool, eliminating the need for a diesel generator or diesel fuel tank. Patent-pending controls balance power regeneration and auxiliary power usage to optimize energy management and ensure the TRU cools valuable cargo.

#### Propulsion assist

The eHub system can also utilize stored battery energy to power the eHub motors to propel the vehicle forward. This low-torque propulsion assist aids in overall vehicle fuel efficiency and also allows for a quiet vehicle approach.

#### Flexible modular packaging

The flexible mechanical design of the eHub system allows for customization to meet the needs of specific routes and delivery schedules. Variable battery pack size and custom controls can further optimize energy use and the modular components fit any trailer configuration.

Visit [www.conmet.com/emobility](http://www.conmet.com/emobility) to learn more.