

Re-engineering.

Re-purposing.

Ready for the future.



It just makes sense.

# The End of Diesel

- Action is needed to address the climate crisis.
- The UK Government aims to reach Net Zero by 2050.
- Outdated body designs need improved safety and efficiency
- Unnecessary maintenance & downtime costs

## The Battery Revolution

- Key driving forces: carbon reduction, sustainability, future-proofing
- Managing the obsolescence of many diesel-powered locomotives which **already exist**.
- Massively improved user experience
- Cost-saving conversions and retained classification & familiarity



# The 08e Prototype

Positive Traction successfully proved the concept of converting diesel engines to battery power with the prototype and launch of Shunter 08308, now known as the '08e'.

The changes achieve several goals:

- Carbon reduction
- Significant improvement in tractive effort
- Operational improvement
- Improved safety
- Reduced maintenance
- Reduced cost of ownership
- Improved user experience



Since its launch in late 2023, the 08e prototype has been on multiple site trials, with more on the horizon. The first production models have since been ordered.

# The 08e Prototype



New Windows –  
Increased Visibility

PT Powertrain™

New Lower Bonnet

PT-Powerpod™  
(Up To 6 Battery Pods)

New Air Compressor &  
Air Dryer

New Lights Front  
& Rear

Weighting Plates

Existing Traction Motors  
& Brakes Retained

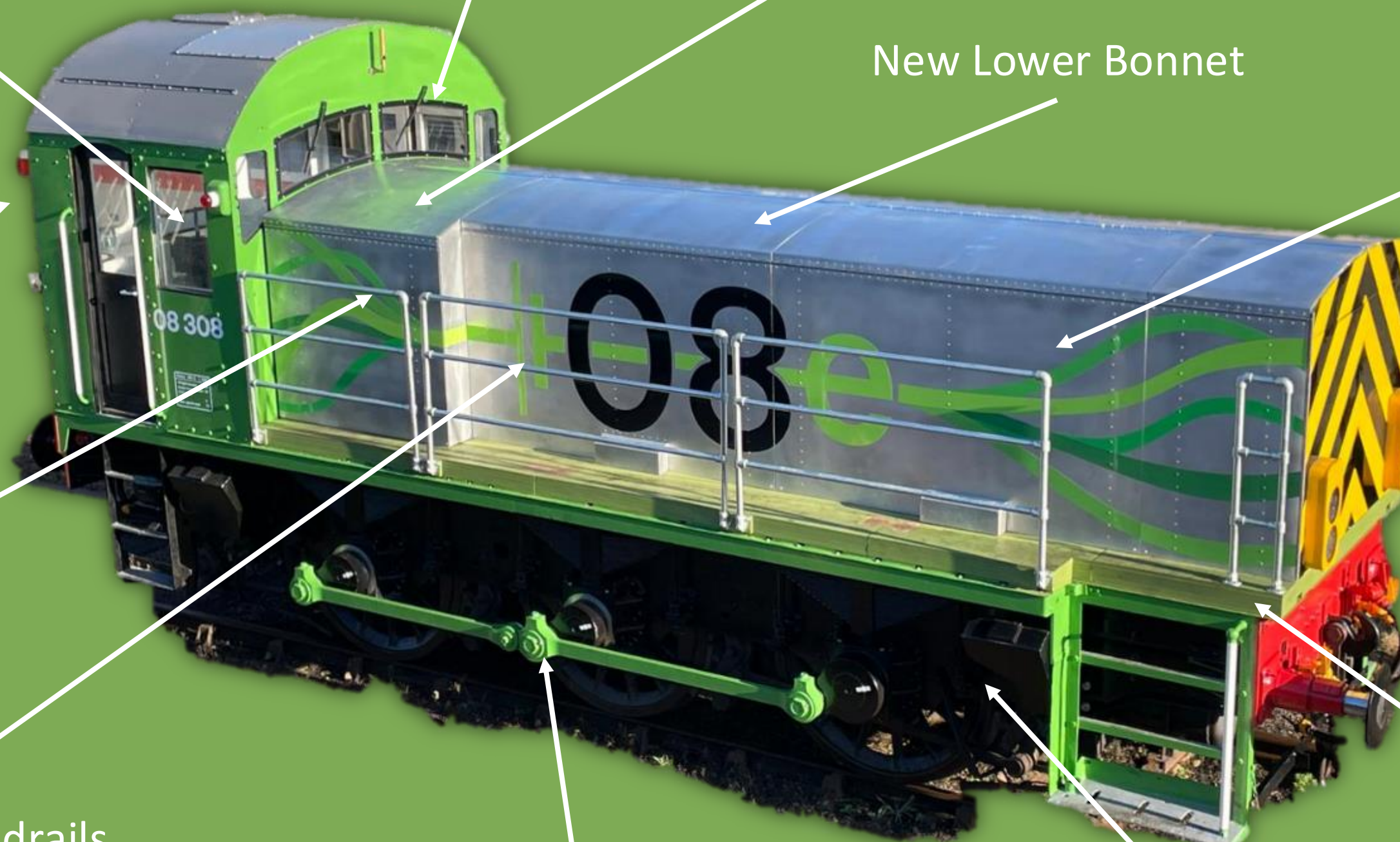
Low Maintenance  
Vesconite Bearings

New Safety Handrails

Auxiliary Converter

New Rear  
Windows To  
Increase Visibility

Familiar Cab  
Controls Retained





# What's next?

The 08e project is an important proof of concept and opens the door to expanding to a huge range of research & development in this area. Positive Traction plan to continue to expand their fleet by applying their conversions & modular technology to a range of vehicles.

The key R&D activities for battery powered locomotives include:

- Prototyping
- Battery Technology Research
- Energy Storage Optimisation
- Power Electronics Development
- Vehicle Control and Management Systems
- Lifecycle Assessment and Sustainability Research