



**BIGJOE**



**PULSE**



**DATA IS EVERYTHING**



**PULSE**

## Data is EVERYTHING

Considering moving your forklift fleet over to lithium power? Whether you're upgrading your forklifts from lead acid to lithium or internal combustion to lithium electric, the many questions that need to be asked can be daunting:

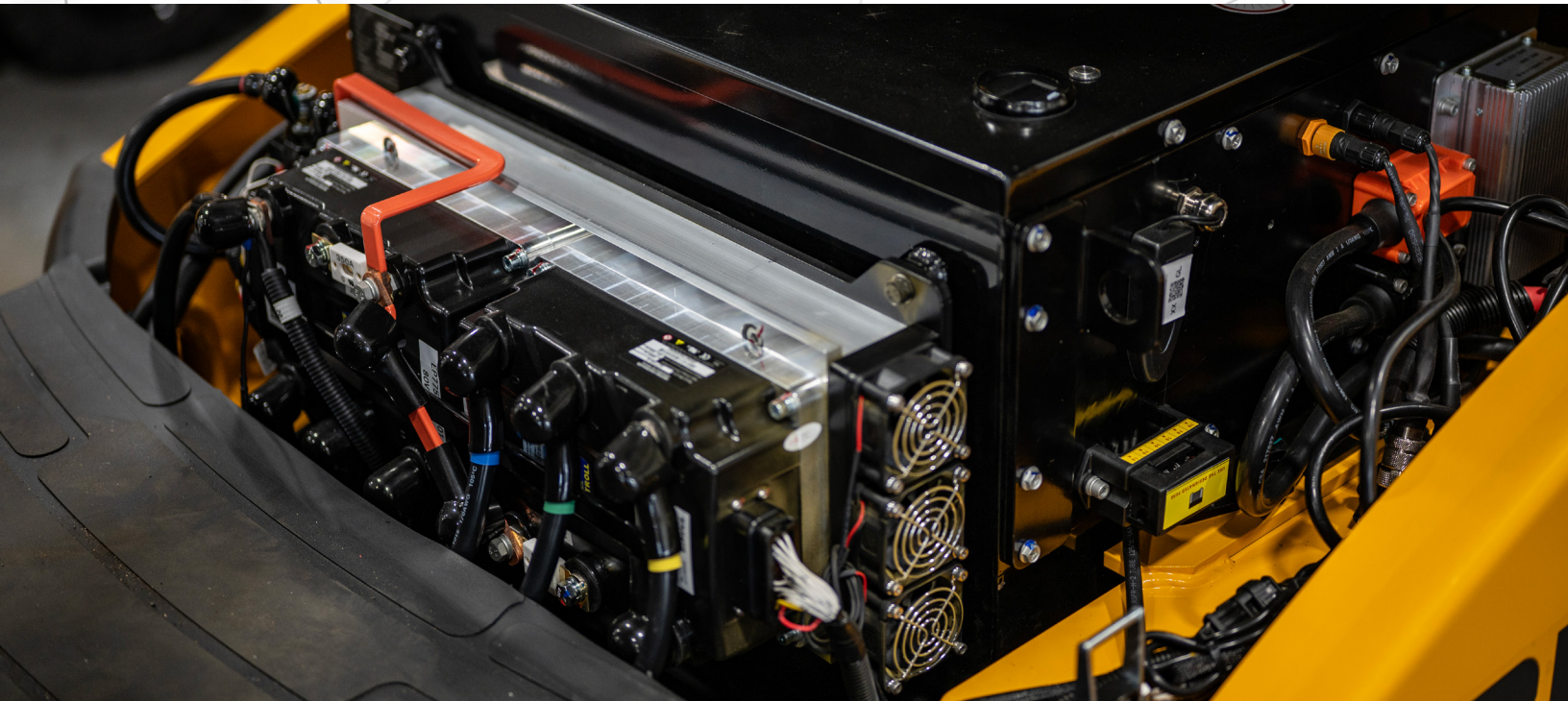
- What size batteries will I need?
- How powerful will the chargers need to be?
- How will productivity be impacted?
- How quickly can I expect to recover my investment?
- Am I really helping the environment by making a change?

With Big Joe Pulse, ***data is everything*** and it is having this data at your fingertips that will empower you to answer these questions with confidence.



# Confident Decisions for the Lithium Operation

Pulse is more than simply a telemetry system. It is a heartbeat monitor that translates real-world operating data into clear insight such as usage patterns, charging behavior, and battery demand. Pulse helps you properly size batteries, plan infrastructure, and deploy electric equipment with confidence, so you can make informed decisions, based on facts, not opinions.



## Right Power. Right Size. Right Performance

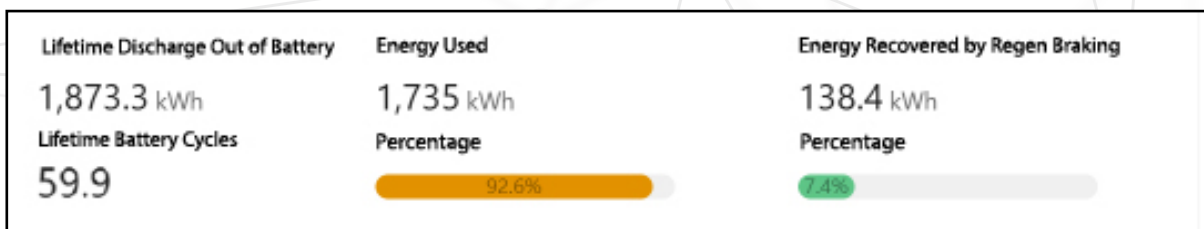
Standard on all Big Joe sit-down counterbalance models with 5 years of free access, Big Joe Pulse tracks detailed energy consumption across your fleet, giving you clear visibility into how each truck uses power across tasks and shifts. These insights help you right-size batteries for your application, eliminating the risk of overspending on oversized packs or under-powering the equipment. With Pulse, battery capacity is precisely aligned to operational demand, improving uptime while reducing capital costs.

# Charging Behavior Analytics: Shape Operator Habits

Pulse identifies missed charging opportunities by analyzing idle time alongside actual charging behavior. These insights uncover gaps in daily workflows and operator habits that can be addressed through simple process improvements or training. By promoting more consistent charging practices, Pulse helps extend battery life, reduce unplanned downtime and ensure trucks are ready when they're needed. It's not just about data. It's about enabling better habits across your operation.

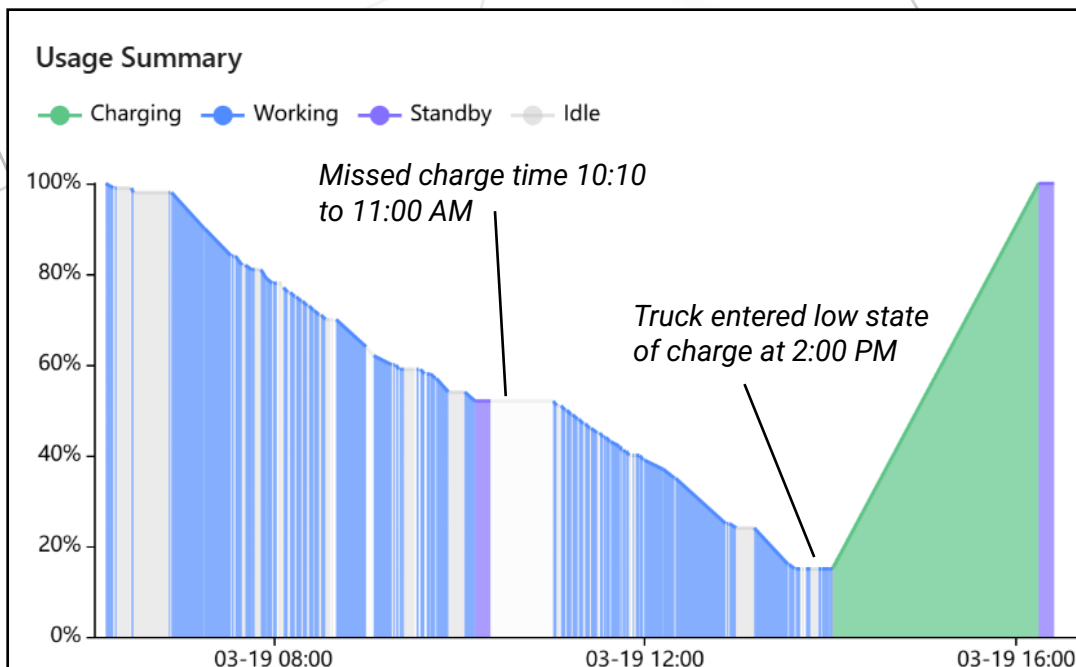
## Lifetime Battery Insights

*A concise view into battery life, utilization and energy usage across its operating lifetime*



## At-a-Glance Operational Insights

*See how trucks are being used, when they are active and how operators engage with charging - captured in a single, intuitive view*

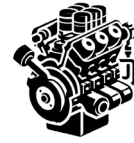


# Fuel Savings

Big Joe Pulse tracks energy consumption in real-time, giving you clear visibility into fuel savings compared to internal combustion trucks.



Lithium-ion



Internal Combustion

	Working	Idle
Hours	1281.5	775.5
Energy (kWh)	4,525	0
Cost (\$/kWh)	\$0.1007	
Spend (\$)	\$456	\$0

**\$456**

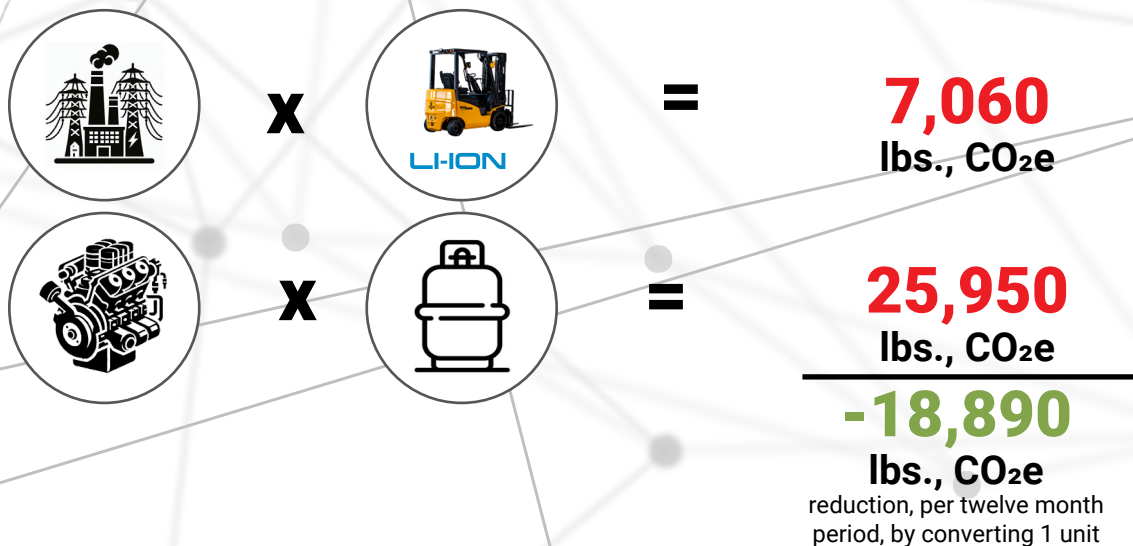
	Working	Idle
Hours	1281.5	775.5
Est. LPG (gal)	733	101
LPG Cost (\$/gal)		\$3.90
LPG Spend (\$)	\$2,859	\$393

**\$3,252**

# Carbon Footprint Reductions

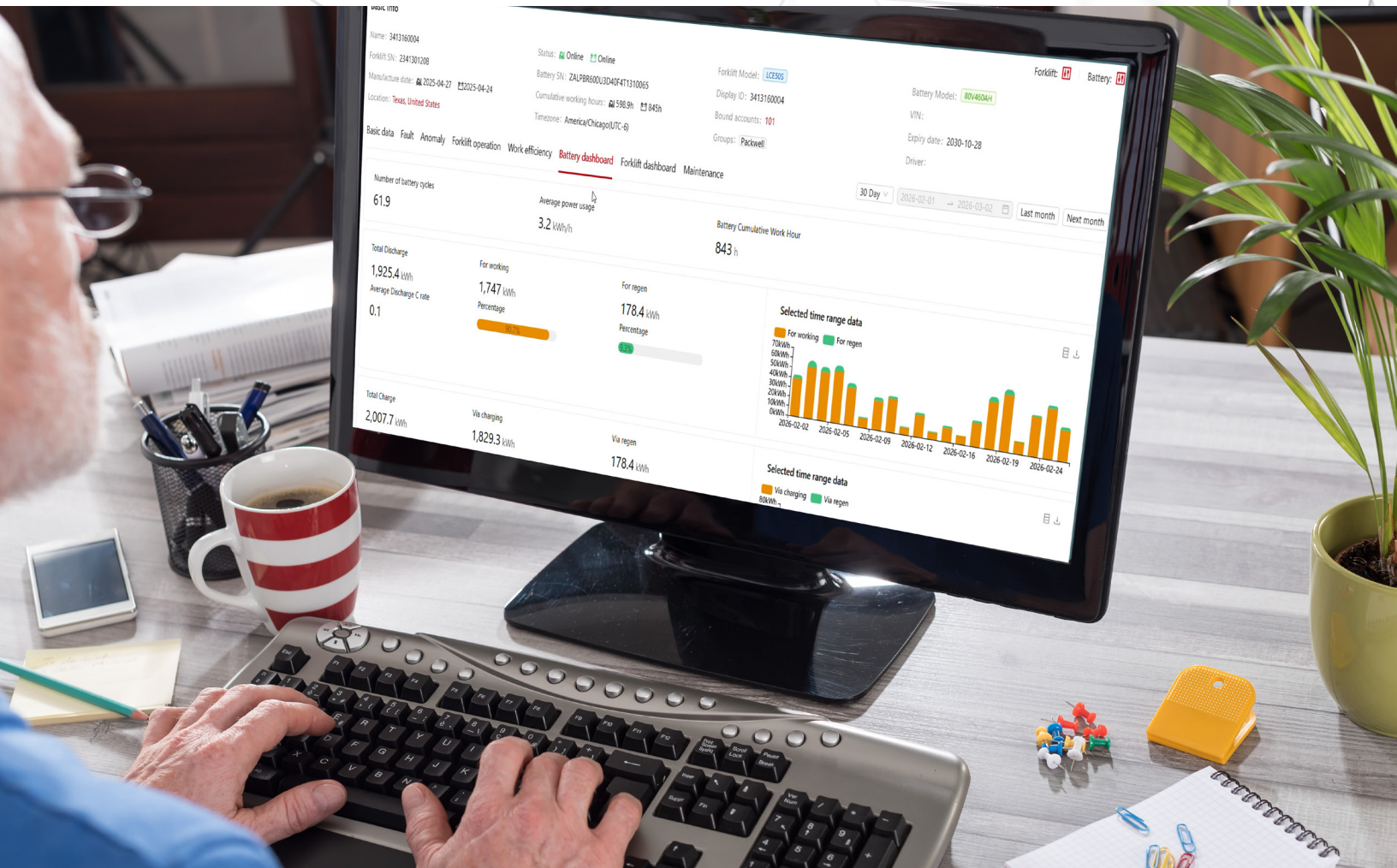
These insights support sustainability goals, help validate electrification ROI and provide credible data for environmental reporting. With Pulse, your fleet becomes a measurable, data-backed contributor to your broader sustainability strategy.

## Fleet Comparison to ICE: Emissions



# Remote Fleet Management Made Easy

Pulse delivers intuitive dashboards that clearly show when trucks are working, idle or charging. Easily create custom groups, export reports and uncover opportunities to improve efficiency and reduce operational waste. With Pulse, you gain comprehensive visibility and control across your operation, enabling confident data-driven decisions every day.



## 5 Years Standard

Every Big Joe electric truck includes five years of Pulse coverage as standard. No additional hardware. No hidden fees. Just powerful data and built-in diagnostics, ready from day one to help you manage smarter, respond faster and get more from your fleet.

# Embedded Troubleshooting Tools

Pulse equips technicians with built-in fault code analysis, step-by-step repair guides and video tutorials. No more guesswork. Remote accessibility empowers technicians to resolve issues faster and more accurately, reducing downtime and improving first-time fix rates. Each fault is categorized by severity and paired with clear, actionable instructions, ensuring equipment uptime optimization.

## Remote Diagnostics & Over-the-Air Updating

Access live truck and battery parameters from anywhere with Pulse. Service technicians can remotely view, diagnose and fine-tune truck performance while capturing data and tracking results in real time. This added flexibility improves service responsiveness, reduces the need for onsite visits and ensures every truck operates at its best. It's like having expert service capability built into every truck, wherever your operation runs.

### Intelligent Service Operations

*Transform fault detection into efficient resolution through connected, insight-driven support*

Error code	Fault type	Duration	First occurrence time
PS19_1	 Pump	-	2026-03-23 18:25:15(UTC-5)
TS19_1	 <a href="#">View solutions</a> ter Traction	-	2026-03-23 18:25:15(UTC-5)
TM230_1	 Master Traction	0.0h	2026-03-23 18:10:08(UTC-5)
TS19_1	 Master Traction	-	2026-03-23 18:08:09(UTC-6)

#### Reason

At key-on and immediately after that, the travel demands have been turned off. This alarm occurs if the ACCELERATOR reading (in TESTER function) is above the minimum value acquired during the PROGRAM VACC procedure.

#### Solution

Tools:

Display, ZAPI handset, Bluetooth App, Multimeter



Established in 1951, Big Joe is a customer-driven North American material handling equipment company. We distribute innovative products for in-between-handling applications, purpose-built counterbalanced lithium forklifts, and market-leading autonomous solutions. Based in Madison, Wisconsin, we provide engineering expertise, customer service, aftermarket parts, and warranty support to our extensive dealer network and customers.



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2026-04-23\_V01