



Pierce Volterra Electric Pumper

November 2025





- Cary's Environmental Goals
- Volterra Purchase Process
- Planning for Implementation
- Implementation at FS9
- Fire Staff Feedback

2024 UPDATE



SUSTAINABILITY AND CLIMATE ACTION STRATEGY

PREPARED BY
Kim Lundgren Associates, Inc.
SPRING 2025



Energy, Transportation, & Mobility



HOW CARY GOT HERE: A VISION YEARS IN THE MAKING



EARLY RESEARCH

June 2021 - August 2022

Staff evaluates emerging electric fire apparatus, including the Pierce Volterra pilot program



THE PIERCE CONNECTION

March 2022

Builds on Cary's prior investment in Idle Reduction Technology (IRT), also by Pierce



WHEELS IN MOTION

March 2023 - October 2023

Conceptual discussions begin, and the Volterra is designed to Cary's specifications.



VOLTERRA MAKES IT TO CARY

April 2025

Volterra is delivered



WHEELS ON THE GROUND

June 9, 2025

Volterra is operationalized at Station 9



IDLE REDUCTION TECHNOLOGY

IRT POWERED DOWN

Diesel Engine

EMERGENCY POWER MAINTAINED

Lights

HVAC

Radio System

NET SAVINGS

Estimated **8.23 metric tons** of emissions annually, roughly equivalent to taking two passenger vehicles off the road.

INVESTMENT: \$8.5M

NO REPLACEMENTS REQUIRED: \$0

Diesel-Powered Pumper

- Emergency response support
- Cost: \$831.5K
- 3-year delivery

Diesel-Powered Aerial Ladder

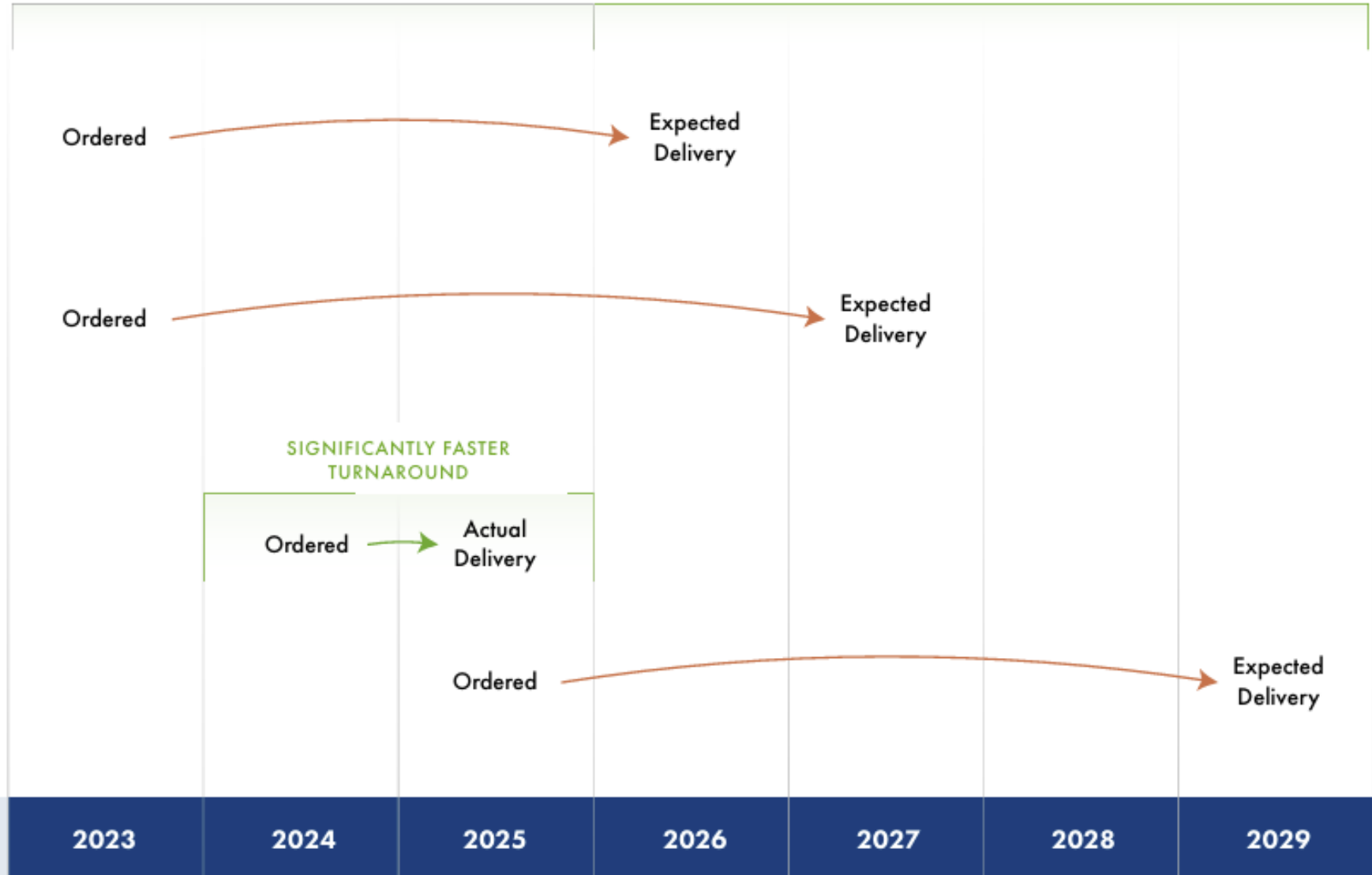
- Emergency response support
- Elevated fire suppression
- Cost: \$2.1M
- 3-year delivery

Volterra Electric Pumper

- Emergency response support
- Cost: \$1.8M
- 1-year delivery

2 Diesel-Powered Rescues

- Emergency response support
- Cost per: \$1.9M
- 3-year delivery







Questions?

Thank You!