
# EV Adoption Drives Greater Productivity at DHL Express

Ford PRO™

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"No day is ever the same; it's always challenging, always fun, always stimulating."

— Chris Wessel, Director of U.S. Fleet

The hours can fly by for fleet managers, and the to-do lists rarely get shorter.

Between monitoring operating costs, handling administrative tasks, coordinating drivers and scheduling vehicle maintenance, managing a fleet is a fast-paced, continually evolving job that often requires juggling competing priorities.

DHL Express Director of U.S. Fleet Chris Wessel is no stranger to the demands of fleet management. "My team and I collectively run the fleet for DHL Express U.S.," Wessel said. "We manage everything that it takes to run a fleet effectively—from vehicle acquisition, maintenance and fueling all the way up to disposing of the vehicle at the end of its life."

# For DHL, Electrification Is a Long Time Coming

DHL Express' current fleet of approximately 2,500 vehicles comprises numerous vehicle types—from cargo vans to medium- and heavy-duty trucks—with 60% of those vehicles being Ford, according to Wessel. "I've been director of U.S. Fleet with DHL for over six years, and my relationship with Ford Pro™ started on day one," Wessel said. "We view Ford Pro as a long-term strategic fleet collaborator for us."

Given the long-standing relationship, Wessel was thrilled to see Ford Pro enter the electric vehicle (EV) market. "We're embracing EV technology and the EV movement," Wessel said. "We take it very seriously, and it's really exciting to see Ford Pro as an OEM go into the EV business."

After initially adopting EVs from various manufacturers over a decade ago, the company recently added over 40 E-Transit™ cargo vans to its Palo Alto, California, market.

Charger Connector shown is from previous generation or third party.

"We're very excited about the E-Transit, including our first round of vehicles that are up and running in our Palo Alto, California, market."

— Chris Wessel

"Not having to refuel at gas stations is good for our production because we're not wasting time making unnecessary stops."

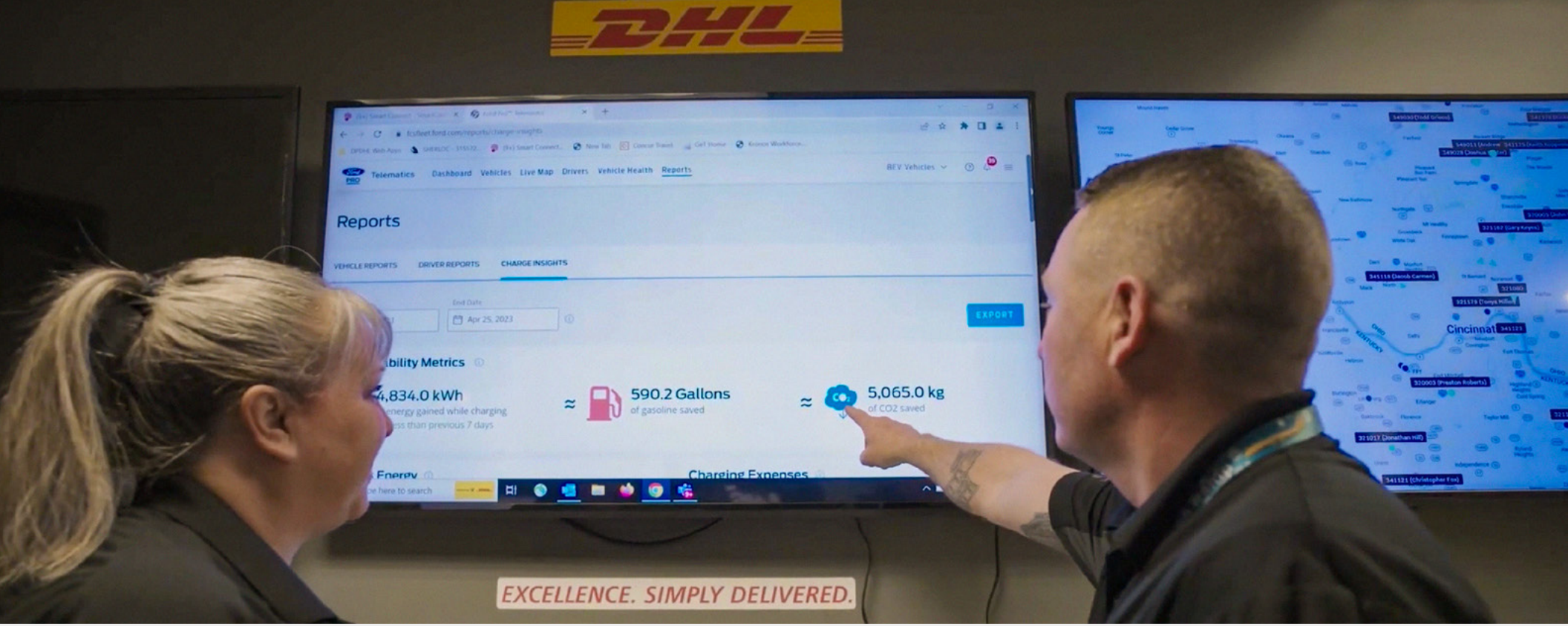
— Marques Broadway, Field Services Supervisor

One of the first things DHL driver Phi Phi Huynh noticed was the benefit of skipping the gas station. "I love not having to get gas every other day," Huynh said. "That takes a lot of time, and it's just a hassle. So simply returning to the station, plugging the vehicle in and knowing that it'll be ready for tomorrow is very convenient." DHL Express Field Services Supervisor Marques Broadway says he's seen firsthand how EV adoption helps streamline day-to-day workflows. "Workers no longer have to stop at gas stations to fill up at night or first thing in the morning," he said. "They can just drive on through." Broadway notes that the benefits of the E-Transit van don't stop there.

"The thing that's most surprising is how smooth they are, how quiet they are and how great of a turn radius they have," he said.

Huynh had similar experiences. She was "ecstatic" to trade in her bread truck for an E-Transit van. "What surprised me most about the E-Transit is how comfortable it is," she said. "When I drive, it's like I'm gliding." Huynh was also impressed with the ample cargo space. Because the battery is positioned underneath the body of the E-Transit van, drivers get the benefits of an electric powertrain without sacrificing precious cargo space.

"My job has been improved because I don't have to worry about space in my van," said Huynh. "I can fit all types of boxes in there."




## Accelerating to Net-Zero

There's a reason the E-Transit van is America's bestselling electric van.[1] The low-roof model of the 2023 E-Transit van boasts an estimated range of 126 miles, while the medium- and high-roof models have estimated ranges of 116 miles and 108 miles, respectively.[2] Avoiding gas station trips doesn't just save time—it also reduces fuel costs and emissions.

In its first year on the market, the all-electric E-Transit van saved an estimated 745,362 gallons of gasoline and 4.3 million kilograms of carbon dioxide (CO2) compared to its gas-powered Ford Transit® equivalent.[3] Using Ford Pro Intelligence software solutions like Ford Pro E-Telematics,[4] commercial fleets can track demonstrable progress toward their sustainability goals.

This is important for DHL, as the global logistics provider plans to be a zero-emission company by 2050,[5] with an interim goal of 60% of its last-mile delivery fleet being zero-emission by 2030.[6] On the Ford Pro E-Telematics[4] Dashboard, DHL can see how much gas and CO2 it's saving by switching to EVs, and if leaders want to drill down further, they can generate exportable reports.

"In conjunction with other tools, we're using Ford Pro E-Telematics[4] to look at the fuel savings of our fleet, and then we'll tie that back to our carbon reporting, making sure that we have a holistic view of our fleet and greenhouse gases avoided," said Wessel.

# EV Charge Management Done Right

Charger Connector shown is from previous generation or third-party.

Still, just as gas- or diesel-powered fleets require a solid fuel management strategy, electrified fleets need a strong EV charge management strategy. When Ford Pro surveyed fleet decision-makers, we discovered that 44% of U.S. respondents identified the lack of convenient charging options as a "big concern."[7] Thankfully, it doesn't have to be. When it comes to installing EV charging solutions, Ford Pro Charging can help. Ford Pro Charging offers a range of electric charging stations and can help coordinate with local utility providers to determine infrastructure needs.

"We've been ordering Ford Pro vehicles since day one and utilizing other Ford Pro services as well," Wessel said. "With about 160 locations across the U.S., we needed to build out charging infrastructure in each of these facilities. Ford Pro came out and looked at our facilities and told us what was possible. It's a really great aspect of Ford Pro."

And if drivers find themselves out in the field low on battery, they don't necessarily have to head back to the depot to recharge. Instead, they can pull up to one of the over 106,000 chargers/plugs in the BlueOval™ Charge Network, North America's biggest public EV charging network.[8] Navigating and plugging in to the nearest in-network charger is easy, as all Ford EVs come equipped with Charge Assist, an in-vehicle SYNC® 4 Technology touchscreen app.

To use the app, the fleet must enroll in Public Charge Management on the Ford Pro Fleet Marketplace and activate Cloud Connected Navigation,[9] both of which come complimentary for a certain period of time with the vehicle purchase. Once complete, drivers just need to pull up and plug in. Fleet managers can set up a single account so authorized public charging is automatically billed to their corporate business account and tracked via Ford Pro E-Telematics.[4]


# Level Up Your Charging Knowledge

Did you know that there are different “levels” of EV chargers?

The level of the charging station determines how fast it will charge the vehicle. For example, a Level 1 charger, which provides power through a 120-volt AC outlet, can take 40-50 hours (sometimes more) to charge an empty EV battery to 80%, according to the U.S. Department of Transportation (DOT).[10] As a result, Level 1 chargers aren’t the best fit for daily commercial use.

A Level 2 AC charger can charge an empty EV battery to 80% in about eight hours,[10] which is why we typically recommend fleets schedule overnight Level 2 charging during off-peak electric rates.

Drivers can plug in their vehicles at the end of their shift—and arrive the next day ready to go. To optimize battery performance, drivers should also schedule remote preconditioning (another capability within the Ford Pro™ E-Telematics[4] platform).

If your fleet needs mid-shift charging, you can use direct current (or DC) fast charging to get your empty EV battery to 80% in 20 minutes to an hour, per the DOT.[10] We would caution against using DC fast charging too often, though, as it can strain the battery over time.[11]

Tip: EV batteries work best within a specific temperature range. Preconditioning is the process of warming (or cooling) the battery to that optimal temperature range while the vehicle is still plugged into the charger. Doing so can help preserve your vehicle's range and reduce the amount of energy needed to heat or cool the cabin while driving.

Charger Connector shown is from previous generation or third party.

# Better Visibility = Increased Uptime

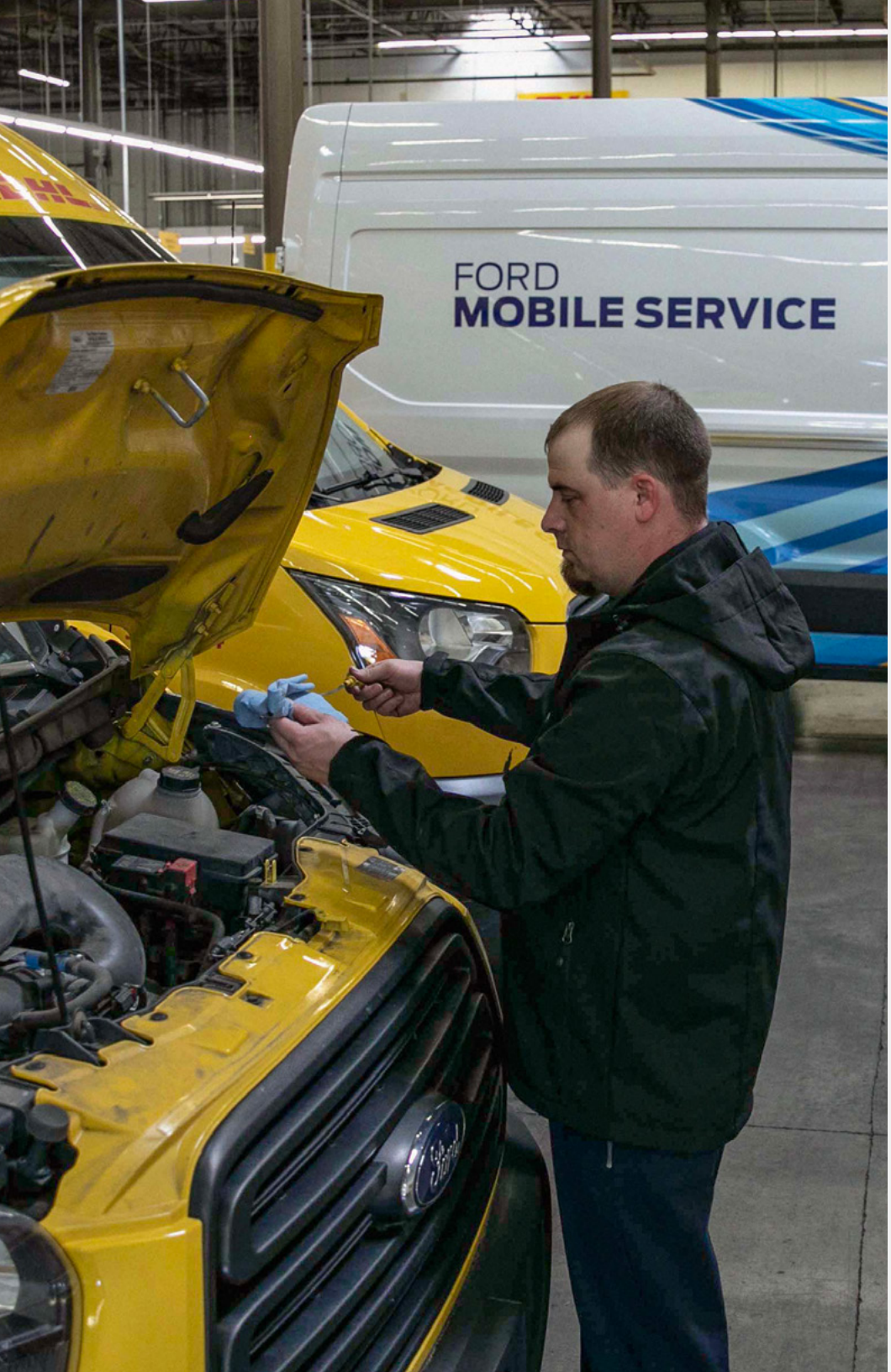
Using vehicles' built-in modems to gather key data such as location, range, etc., Ford Pro E-Telematics[4] packages that information into digestible reports that can be used to streamline operations and improve uptime. "We love having that vehicle visibility: seeing the percentage of vehicles in use, trucks en route, their locations, the status of charge and range—all those things are really important for us as fleet managers," Wessel said.

With Ford Pro E-Telematics,[4] DHL Express also gains a near-real-time view of the health of its vehicles—including current and future maintenance needs, as well as any outstanding recalls. As a result, DHL can predict and plan for service before a vehicle goes down in the field. "We work in a lot of unique markets—and we're always thinking how we can deliver for our customers on a daily basis and make sure shipments are being picked up and delivered in a timely fashion," Wessel said.

"If a vehicle breaks down unexpectedly, that's really challenging and costly. We could potentially miss a shipment, miss a package, miss a customer."

Broadway agrees. "It can be a challenge to keep up with the maintenance," he said. "But with the EVs, it's been pretty smooth so far." Because EVs run on an electric motor instead of an internal combustion engine, they require fewer fluids and moving parts.[12]

As a result, the scheduled maintenance costs of the E-Transit van are estimated to be 45% lower than the average scheduled maintenance costs for the gas-powered 2022 Ford Transit over five years or 75,000 miles (whichever comes first).[13] "With the introduction of the E-Transit into our fleet, we're starting to see a reduced maintenance cost per vehicle and reduced cost per mile on maintenance," said Wessel. "And of course, there's the fuel avoidance that we're just wiping out altogether."




## Service Whenever You Need It

Ford Pro E-Telematics[4] can help fleet managers plan for future service events and keep up with vehicle health in real time, which helps keep vehicles road-ready. To further maximize efficiency, Ford Pro also offers Mobile Service,[14] where certified technicians will come to you to perform services like tire rotations, software updates and more. One Ford Pro customer survey estimated that Mobile Service could help reduce vehicle downtime by about 20%.[15]

DHL Express finds this kind of offering invaluable. "The Mobile Service[14] is extremely convenient, meaning we don't have to take a vehicle out of our depot," said Wessel. "We can have them come in, do a service as needed and get that vehicle back on the road quicker."

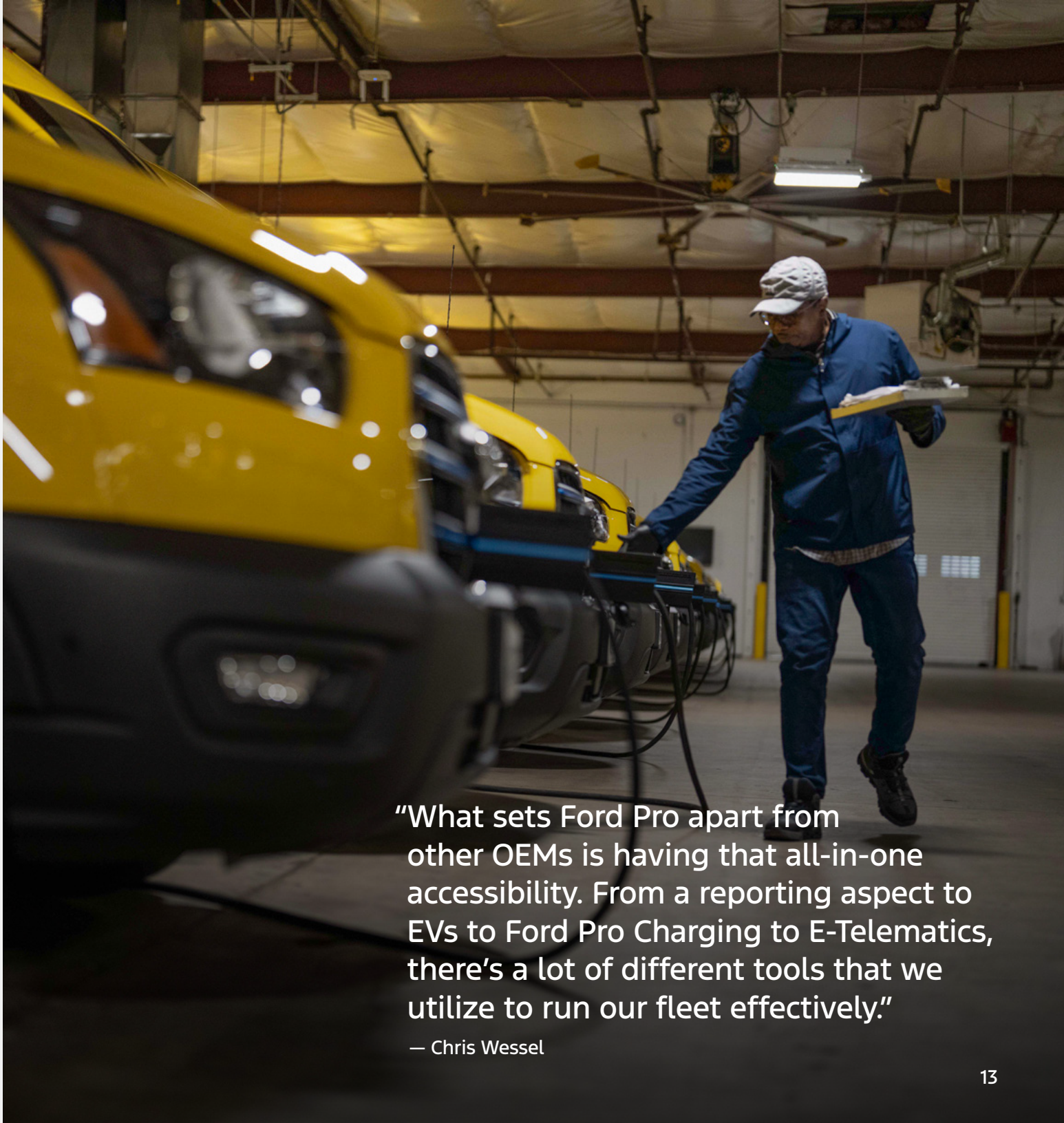
"Vehicle uptime is a critical component for us."

— Chris Wessel

For DHL, the switch to EVs can only expand from here, and Ford Pro is proud to be part of that journey.

Ready to consider EV adoption in your own fleet? If you don't know where to start, don't hesitate to reach out. Ford Pro will work to understand your commercial fleet's unique needs, budget and vehicle use cases and offer commercial vehicles and charging solutions that deliver.

Talk to a Ford Specialist



"What sets Ford Pro apart from other OEMs is having that all-in-one accessibility. From a reporting aspect to EVs to Ford Pro Charging to E-Telematics, there's a lot of different tools that we utilize to run our fleet effectively."

— Chris Wessel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[1]Based on 2022 CY Motor Intelligence Data.
[2]Based on full charge. 2023 E-Transit™ Cargo Van Low Roof model demonstrated range reflecting current capability based on testing consistent with US EPA MCT drive cycle methodology (https://fueleconomy.gov/feg/pdfs/EPA%20test%20procedure%20for%20EVs-PHEVs-11-14-2017.pdf) at ALVW (Adjusted Loaded Vehicle Weight). Medium Roof and High Roof models projected range reflecting capability based on CAE analytical adjustments from tested vehicle and adjusted for roof height. Actual range varies with conditions such as external environment, vehicle use, upfits and alterations, vehicle maintenance, high-voltage battery age, and state of health.
[3]Based on enrolled vehicle data within Ford Pro™ E-Telematics from 2/26/2022 through 3/06/2023 in the U.S. and Canada.
[4]Eligible vehicles (2022 and 2023 MY) receive a complimentary three-year trial of E-Telematics services and eligible vehicles (2024 MY) receive a one-year trial that begins on the New Vehicle Warranty start date. Requires modem activation. Terms and conditions apply. Telematics service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features. Annual service contract is required for E-Telematics service after trial. Call 1-833-811-3673 or go to fordpro.com to activate E-Telematics service.
[5]"Yellow Goes Green: DHL's 2050 Emissions Commitment." DHL. April 5, 2022. https://www.dhl.com/discover/en-global/about-dhl/dhl-stories/the-path-toward-zero-emissi
[6]"Environment." DHL. July 6, 2021. https://www.dhl.com/discover/en-au/logistics-advice/sustainability-and-green-logistics/environment
[7]"Ford Pro™ Fleet Manager Global Quantitative Study: Perceptions of Electric Vehicles, March 2022." This quantitative study was fielded in the United States, United Kingdom and Germany among 1,250 corporate fleet decision-makers. The survey was conducted online in December 2021. PSB was hired by Ford Pro to conduct the survey. Results are not weighted.
[8]Based on original equipment manufacturers (OEM)/automotive manufacturers that sell all-electric vehicles and have active charging networks. Department of Energy data as of Oct. 17, 2023, used. Numbers subject to change. FordPass®, compatible with select smartphone platforms, is available via download. Message and data rates may apply.
[9]Services require SYNC®4 or newer, activation through FordPass® App (subject to FordPass Terms), modem activation, and a Connected Navigation service plan. Equipped vehicles come with [either] a 90-day [or] up to three-year] Connected Navigation trial from new vehicle warranty start date, after which purchase is required. Connected service and features depend on compatible AT&T network availability. Evolving technology/cellular networks/vehicle capability may limit functionality and prevent operation of connected features.
[10]"Charger Types and Speeds." U.S. Department of Transportation. https://www.transportation.gov/rural/ev/toolkit/ev-basics/charging-speeds
[11]"Why Drive Electric?" Montgomery County, Maryland, Department of Environmental Protection. https://www.montgomerycountymd.gov/green/zev/ev-101.html
[12]"Maintenance and Safety of Electric Vehicles." Alternative Fuels Data Center. https://afdc.energy.gov/vehicles/electric_maintenance.html
[13]Scheduled maintenance costs based on recommended service schedule as published in the Owner's Manual. Analysis reflects Ford Motor Company's standard method for calculating scheduled maintenance cost and reflects data available in 2022.
[14]Available at select locations. Services and mileage limits vary by participating dealer. See dealer for details.
[15]Internal Survey, Sonoma Fleet Solutions Survey (April 2023). Available at select locations. Services and mileage limits vary by participating dealer. See dealer for details.