



Wabtec Driving Sustainability

TROY CHATWIN

troy.chatwin@wabtec.com

(518) 795-4477



troy.Chatwin@wabtec.com

(518) 795-4477

2021 Sustainability Report

Moving and improving the world



Corporate Headquarters
PITTSBURGH, PA

We are Wabtec

Wabtec is a leading global provider of equipment, systems, digital solutions, and value-added services for the freight and transit rail sectors. Drawing on over 150 years of experience, we are leading the way in safety, efficiency, reliability, innovation, and productivity. Whether it's freight, transit, mining, industrial, or marine, our expertise, technologies, and people – together – are accelerating the future of sustainable transportation.

\$7.6B
2020 REVENUES

62%
NON-U.S.
EMPLOYEES

38%
U.S. EMPLOYEES

~25K

EMPLOYEES

as of 12/31/20; excludes
contingent workers

~50

COUNTRIES WITH
WABTEC OPERATIONS



33%
OF PORTFOLIO*

Transit

With its exceptional fuel economy and low emissions, public transportation is one of the most environmentally-friendly modes of transport to move people – fast and safe. At Wabtec, we provide products and services to virtually every major rail transit system around the world, supplying an integrated solutions of brakes, doors, and components for commuter and metro cars, as well as buses, that deliver safety, efficiency and passenger comfort.

We offer an extensive array of products, from pneumatic, electronic, and hydraulic brake equipment, to HVAC and sanitation systems. Each of our products draws on our deep experience tailoring components to meet the specific needs of our customers and are manufactured using the latest technologies.

Our Portfolio

* based on 2020 revenue



67%
OF PORTFOLIO*

Freight

From the food on our tables to the products we purchase, freight rail is part of an integrated, efficient, and cost-effective network fueling the world's economy. Today, more than 20 percent of the world's freight is moved by a Wabtec locomotive and more than 30 percent of all products transported through North American shipping ports are tracked by Wabtec software.

Wabtec's compelling and comprehensive portfolio includes locomotives, a broad selection of mission-critical components, advanced braking systems, Positive Train Control (PTC) systems, digital solutions to drive the future of autonomous operations, and lifecycle service offerings to help customers realize the most value from their investment.

With best-in-class manufacturing facilities, global services delivery, and unrivaled product breadth, Wabtec is the rail industry's one-stop-shop.



Sustainability Strategy

OUR MISSION

Performance that drives progress. We create transportation solutions that move and improve the world.

SUSTAINABILITY VISION

Wabtec is committed to sustainable value creation. Our strategy is to contribute to a better, more sustainable world through our unique business offerings, leading technologies, and sustainable business practices. These help us capitalize on market opportunities and reduce safety and environmental risks, while creating value for our customers, employees, and other stakeholders.

SUSTAINABILITY PRINCIPLES

Innovating with Purpose

We are committed to developing responsible and sustainable products that minimize the impact on the planet.

Driving Responsible Operations

We are committed to providing safe work environments and products that enable productive and efficient use of resources.

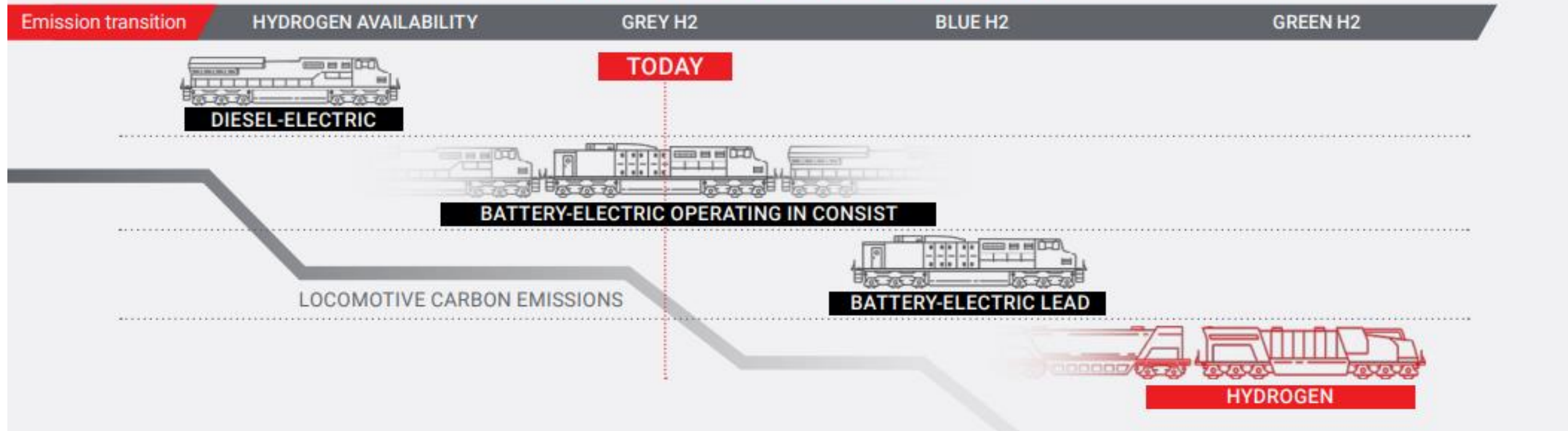
Empowering People and Communities

We are committed to driving an inclusive culture grounded in integrity, committed to the development of and investment in the communities where our teams live and work.



Innovating
with Purpose

Roadmap to Zero-Emissions Locomotives



INNOVATING WITH PURPOSE

Advancing a Circular Economy

Celebrating 1,000 Locomotive Modernizations in Americas

Wabtec and its customers' shift toward more sustainable operations is a multi-front campaign. While transformative new innovations are critical, optimizing existing resources is how you scale your impact.

Wabtec's locomotive modernization program updates aging locomotives with customized solutions that range from simpler changes like control system upgrades, to complex restorations such as the comprehensive transformation of a DC locomotive into an AC locomotive outfitted with state-of-the-art digital technology. These modernizations of older locomotives result in up to a 25 percent improvement in fuel efficiency, more than a 40 percent increase in reliability, up to a 55 percent increase in haulage ability, and up to a 20 percent reduction in maintenance, repair, and overhaul expenses.

Norfolk Southern Corporation is one of the nation's premier transportation companies, operating with 19,300 route miles in 22 states and the District of Columbia, and transporting industrial and agricultural products, forest and consumer products, chemicals, metals, and construction materials.

This year, Wabtec celebrated its 1,000th locomotive modernization in North and South America with a delivery to Norfolk Southern, highlighting the combined commercial and environmental success of Wabtec's modernization program. The fuel efficiency benefits of these 1,000 locomotives have reduced carbon emissions by more than 1.4 million tons since 2015. That reduction is the equivalent of removing the emissions from 340,000 cars.

Modernizations by the Numbers

25% improved fuel efficiency

40% increase in reliability

55% increase in haulage ability

20% reduction in maintenance, repair



1.4^M **=** **340^K**

tons CO₂ reduction

cars off the road

WABTEC

Battery Electric Portfolio

Technology Scalability



FREIGHT

1.0
FLXdrive

2.0
FLXdrive

3.0
FLXdrive
FLXextender



YARD

FLXswitch

Railcar Mover



PASSENGER

NYCT

MBTA

Mainline Battery Loco Demonstration

STOCKTON TO BARSTOW

FLXdrive 1.0 Demonstration

36

TRAINS

13,320

MILES

~6,200

GALLONS SAVED

0

MAJOR FAILURES

STOCKTON

BARSTOW

KEY ACCOMPLISHMENTS

Safety & Reliability

Tractive Effort

Regenerative Braking

External Charging

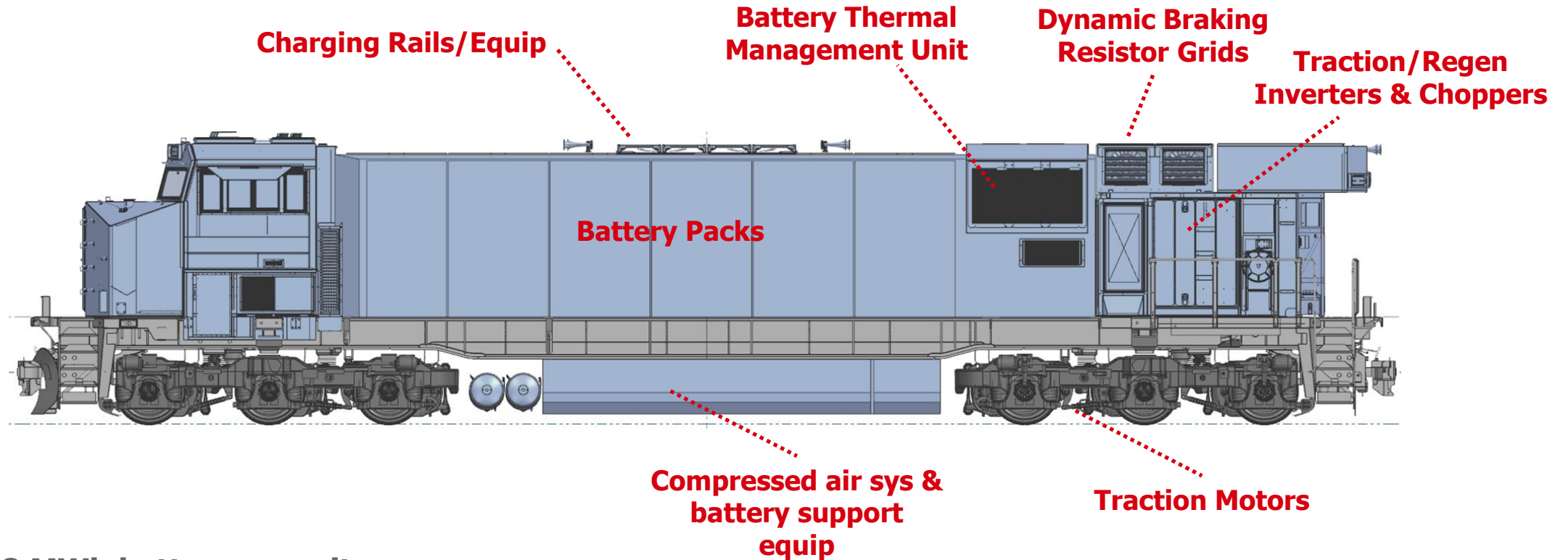
TO Integration

Fuel Savings Avg 11%...
As Predicted

NEXT STEP
BUILD UPON THE SUCCESS OF
FLXdrive 1.0 WITH A
COMMERCIALIZED 2.0

FLXdrive Mainline Locomotive

Battery Electric



7-8 MWh battery capacity

FLXdrive
BATTERY ELECTRIC LOCOMOTIVE

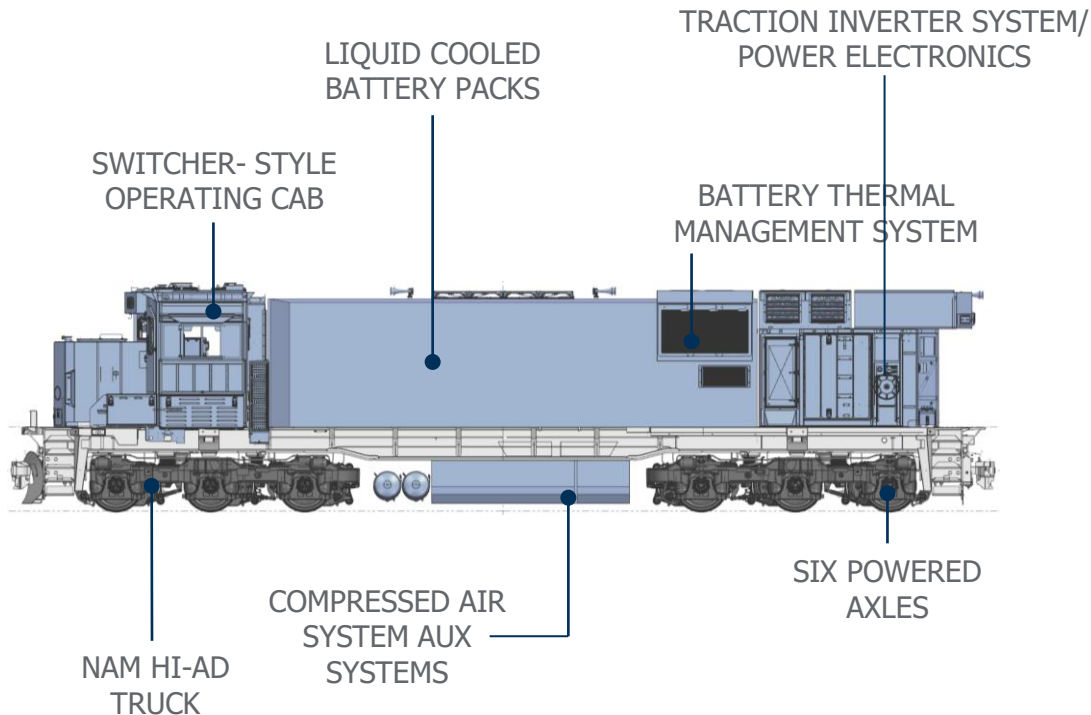
FLXswitch – AC Battery Electric Switcher

North American

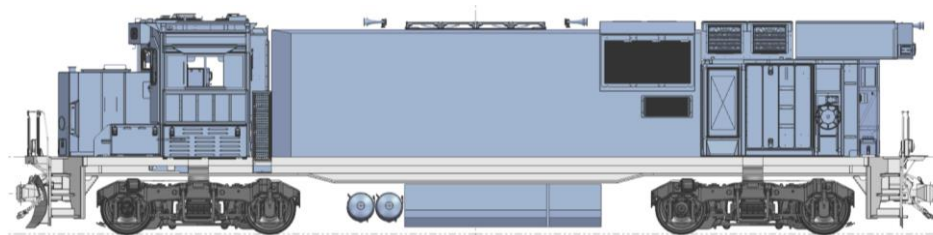
Innovation in fuel consumption

PRODUCT FEATURES

- Full diesel switcher replacement. AC traction system.
- Most applications will only need 1 charge per day
- 4-6 powered axles w/ single axle control
- Liquid-cooled batteries
- 2-4 hours to reach 90%+ charge
- DC charging on top of locomotive
- DC chopper design for blended dynamic brake with regen charging



6 axle Yard Switcher



4 axle Yard Switcher

