

**CPKC**

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# Climate Mileposts

Progress Update on the Transition  
to Low-Carbon Freight Rail

February 2025

*Sustainably Driven*







# Forward-Looking Information

This report contains certain forward-looking information and forward-looking statements (collectively, “forward-looking information”) within the meaning of applicable securities laws, including with respect to the environmental, social, governance and sustainability priorities, policies, practices, programs, goals, targets, strategies and objectives of CPKC. Any statements about our expectations, beliefs, plans, goals, targets, predictions, forecasts, objectives, assumptions, information and statements about possible future events, conditions and results of operations or performance are not historical facts and may be forward-looking. Forward-looking information in this report includes, but is not limited to, plans, timelines or objectives of management for future operations, including with respect to locomotive decarbonization phases and anticipated mileposts; information regarding sustainability-related actions we plan to take in the future, including CPKC’s climate strategy for reducing GHG emissions, our Commitment to Climate Action or other sustainability-related commitments; fuel efficiency of railways and our operations; future investments in and the availability of carbon emissions-reduction tools and technologies including through our fleet modernization program and technology upgrades; the impacts of existing and planned capital investments and our ability to work with governments and third parties to mitigate the impacts of climate change; and assumptions underlying or relating to any of the foregoing. Forward-looking information is often, but not always, made through the use of words or phrases such as “anticipates”, “aims”, “strives”, “seeks”, “believes”, “can”, “could”, “may”, “predicts”, “potential”, “should”, “will”, “estimates”, “plans”, “mileposts”, “projects”, “continuing”, “ongoing”, “expects”, “intends” and similar words or phrases suggesting future outcomes.

## Additional Report Information

This document incorporates or otherwise relies upon data from third parties, which may have been prepared in ways that are not consistent with our methodologies or practices. We do not independently verify such third-party information. As a result of these and other factors, including our ongoing sustainability integration and factors described elsewhere in this document, information disclosed in this document might differ from that contained in prior disclosures (including prior KCS disclosures). In future disclosures, we may change, or update the mileposts, plans, targets, objectives and other information contained herein or include disclosures that otherwise differ from those contained in or implied by this document. We undertake no obligation to update

Forward-looking information is based on current assumptions about our business and our strategy as well as economic, political, regulatory, market and environmental conditions affecting them. Although we believe the assumptions reflected in the forward-looking information presented in this report are reasonable as of the date hereof, there can be no assurance that they may prove to be correct. Readers should not put undue reliance on forward-looking information, as it is not a guarantee of future performance. Forward-looking information involves many inherent risks and uncertainties that could cause actual results to differ materially from the forward-looking information. This includes risks such as: change in business strategies, general North American and global economic, credit and business conditions, changes in the availability and price of commodities and energy; the effects of competition; industry capacity; shifts in demand; changes in laws and regulations; natural or other disasters, including earthquakes, wildfires, pandemics or acts of terrorism affecting the markets in which we operate; the adverse effects of climate change on our business, investors, customers, suppliers and counterparts; our ability to successfully execute on initiatives relating to sustainability; cost increases; claims and litigation; labour disputes; liabilities arising from derailments and the outbreak of a pandemic or contagious disease and the resulting effects on economic conditions; and the successful integration of KCS into the Company among other things. The foregoing list of risks is not exhaustive.

These and other factors are detailed from time to time in reports we file with the securities regulators in Canada and with the U.S. Securities and Exchange Commission (SEC) in the United States. Readers should refer to Item 1A – Risk Factors, Item 7 – Management’s Discussion and

the information in this report or prior disclosures, except to the extent required by law.

Our approach to the disclosures included in this document differs from our approach to other disclosures, including our filings with the SEC, and any disclosures we may make under any other regulatory frameworks. This document is intended to provide information from a different perspective and in some cases in greater detail than is required to be included in such other reports. Words used in this document (including any references to “significance,” “importance,” “priority,” “transition plan,” “scenario analysis,” “carbon neutral,” “sustainable,” “impact”

Analysis of Financial Condition and Results of Operations and Forward-Looking Statements in our 2023 Annual Report on Form 10-K and to our risk factor and forward-looking information disclosure in our quarterly reports on Form 10-Q filed on SEDAR+ ([www.sedarplus.ca](http://www.sedarplus.ca)) and EDGAR ([www.sec.gov](http://www.sec.gov)). In addition, our environmental, social, governance and sustainability priorities, policies, practices, programs, goals and objectives (including CPKC’s climate strategy and our Commitment to Climate Action) remain under development as we continue to refine our analysis of and response to potential future climate and other risks and opportunities, and as the science, data and methodology underlying our analysis and strategy continue to evolve over time. Further, as we continue to integrate the operations of KCS into ours, we are conducting additional data-gathering and intend to further assess the climate and other environmental, social, governance and sustainability strategies and initiatives for the combined company, and may make changes to our existing strategies and initiatives as a result.

For these reasons, in future disclosures, we may include information that differs from information contained in this report. Unless indicated otherwise or the context otherwise requires, forward-looking information in this report speaks only as of the date hereof. We undertake no obligation to update or otherwise revise any information in this report, including any forward-looking information, unless we are required to by applicable law.

or “net zero” or similar terms) should not be read to have the meanings ascribed to them under any securities laws or regulations or any other applicable legal requirements in any jurisdiction. Unless otherwise stated, we use such words in this document to refer to our internal criteria, processes and approaches.

All references to websites, reports or other documents in this report are for your information only. The content of such websites, reports or other documents (or any other information they refer to) is not incorporated by reference into this report.





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On April 14, 2023, Canadian Pacific (CP) and Kansas City Southern (KCS) came together, marking the successful completion of the largest Class 1 combination in the North American freight rail sector in more than 20 years. This historic event ushered in a new era for our company, setting in motion the complex task of integrating CPKC's operations, governance and systems. In June 2023, we released an updated climate statement, underscoring our commitment to combating climate change. This statement introduced a combined CPKC emissions reduction target, validated by the SBTi, replacing the previous separate targets established by CP and KCS, and announced our ambition to set a net-zero target. As we continue to integrate our sustainability programs, we may further update our strategies, priorities, initiatives, data collection methodologies and analytical frameworks.

Now, over 18 months into our integration, we are continuing to make strategic investments to enhance our business:

- CPKC completed our acquisition of 50 miles of the Meridian & Bigbee Railroad (MNBR) line from Meridian, Miss. to Myrtlewood, Ala., establishing a new, more efficient Class 1 interchange with CSX at Myrtlewood.
- We opened the second span of the Patrick J. Ottensmeyer International Railway Bridge, doubling our capacity to move freight through the border between Laredo, Texas and Nuevo Laredo, Tamaulipas.
- Our pioneering Hydrogen Locomotive Program continues to make significant strides, swiftly progressing from initial movement trials in 2021 to recording more than 6,000 miles in freight service testing by the end of 2024.

- We have successfully conducted more than 1,100 fueling events in 2024 as part of our B20 locomotive biofuel trial in British Columbia. This initiative, in cooperation with the broader rail industry, aims to validate the operational impacts of using advanced renewable biofuel blends.

We expect each of these achievements to aid in the efficiency of our business today, while positioning CPKC for growth, resiliency and long-term sustainability.







## About This Report

This Climate Mileposts report outlines some of the near-term steps that we currently expect to take in order to support CPKC in preparing for the transition to a low-carbon future. In this document, we also highlight some of the longer-term possibilities we are exploring to enhance the sustainability of our business, including the possibility of widespread decarbonization across our locomotive fleet.

We expect the road to net-zero to continuously evolve. The mileposts outlined in this document are intended to provide our stakeholders with a sense of our current thinking about potential future opportunities to enhance

the sustainability of our operations, which will evolve due to unknowns that will continue to emerge for mileposts yet to come. As a result, the plans, targets and objectives we describe in this and other climate-related disclosures may ultimately change. As we continue to explore opportunities to decarbonize our business, it is clear that our ability to meet these milestones will depend significantly on the actions of third parties and stakeholders beyond our control, including governments, investors, suppliers, customers, freight sector peers and countless others along the way.

**We look forward to sharing updates on our progress.**

# Understanding CPKC's Carbon Footprint

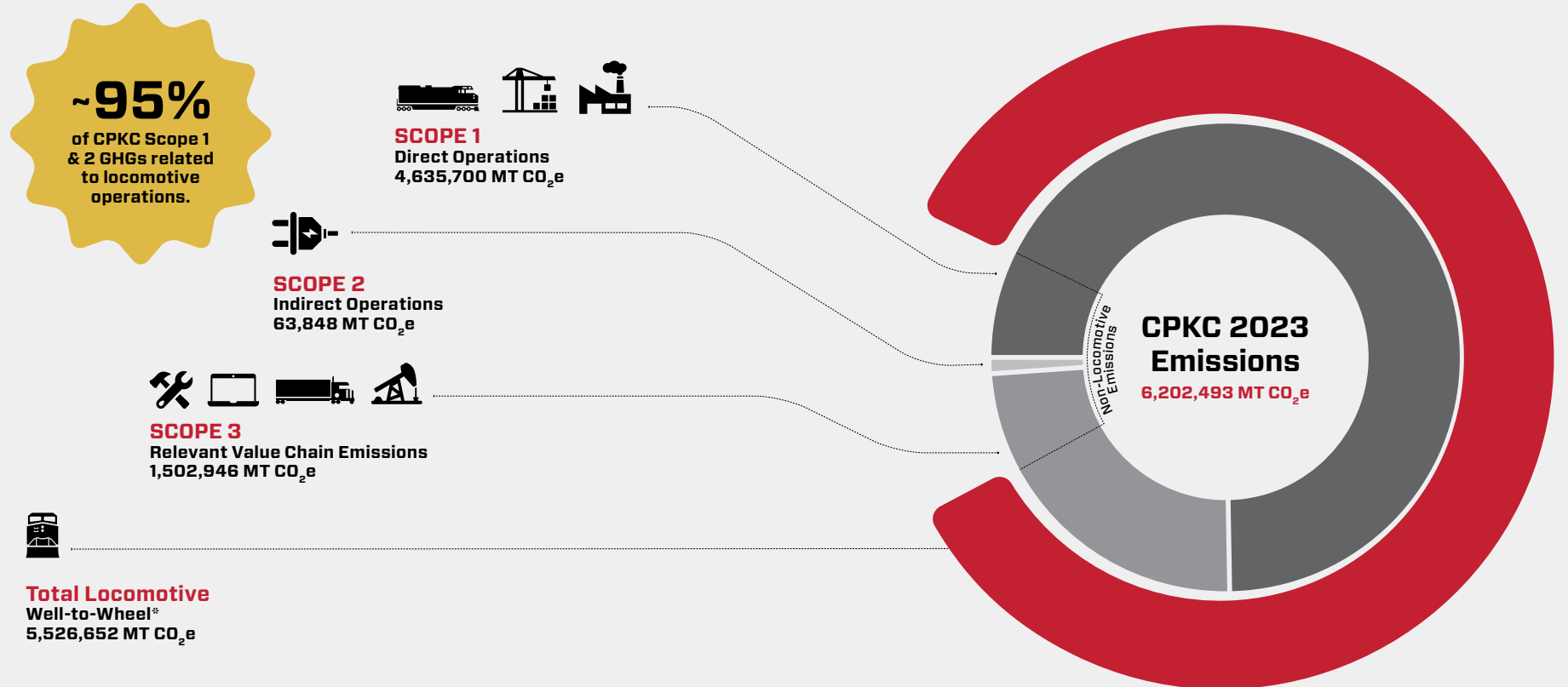
## CPKC's Emissions Inventory

In 2024, CPKC completed our first full inventory of greenhouse gas (GHG) emissions as a combined operation. This process involved consolidating a wide range of energy and business-related information to provide a clear picture of GHG emission sources and data from across the business. To enhance our ability to manage this information for an expanded CPKC operation, we implemented an integrated GHG data management tool. Completing this foundational work is intended to enhance the quality, reproducibility, accountability and auditability of our emissions data, improving our monitoring and reporting capabilities as we integrate legacy CP and KCS information systems.

## The Carbon Advantage of Rail Over Trucks

Shipping freight by rail continues to demonstrate GHG benefits for shippers when compared to transporting a similar volume of materials by trucks.

- Shipping freight by rail is three to four times more fuel-efficient than transportation by truck. Rail can reduce transportation-related emissions by approximately 75% when compared to truckload.<sup>1,2</sup>



\*Well-to-wheel emissions are the total GHG emissions from the entire lifecycle of a fuel, from production to use in a vehicle or locomotive.

- A single unit train can carry as much freight as approximately 300 trucks, improving transportation efficiency, enhancing safety and reducing congestion and taxpayer funded maintenance costs on public roads.<sup>2</sup>
- Railroads account for more than 28% of U.S. freight movements by ton-miles but only 1.7% of U.S. transport-related GHG emissions.<sup>1</sup>
- Freight railways have improved fuel efficiency by more than 40% in the U.S.<sup>3</sup> and Canada<sup>4</sup> since 1990. While significant progress has been made to improve fuel efficiency across the rail sector, much work remains to advance low-carbon technologies and energy sources to further support decarbonization across the sector.

<sup>[1]</sup> Freight Railroads & Climate Change, published by the Association of American Railroads (2023); <sup>[2]</sup> How railways can be part of Canada's climate change solution, published by the Railway Association of Canada (2016); <sup>[3]</sup> The Positive Environmental Effects of Increased Freight by Rail Movements in America, published by the American Association of Railroads (2020); <sup>[4]</sup> Towards Net Zero: Developing a Rail Decarbonization Roadmap for Canada, published by the Railway Association of Canada (2022).

# Reducing Emissions Across the Hard to Abate Freight Rail Sector

Despite freight rail's demonstrated success in improving locomotive fuel efficiency, implementing solutions to further reduce or abate GHG emissions from rail operations remains a significant challenge. Diesel-electric locomotives have long been the backbone of the freight rail industry, with over 37,000 currently in service across North America. Consequently, diesel-powered locomotives represent the sector's largest source of GHG emissions. Many rail operators, including CPKC, are exploring innovative technology solutions to reduce emissions from their locomotive operations.

The North American freight rail sector is highly integrated, featuring efficient operations that rely on interoperable equipment and technologies. As a result, reducing GHG emissions from rail operations will require sector-wide support to decarbonize locomotives and complex fueling infrastructure. The feasibility and timeline of any such efforts will depend on the speed and success of cross-industry efforts to enable the availability of breakthrough technologies and drive investment in low-carbon locomotives and supporting infrastructure. CPKC is actively working with our peers, suppliers, customers and other stakeholders to explore opportunities to reduce locomotive GHG emissions across several key potential pathways.

## Pathways to Reduce Emissions

Key potential pathways to reduce locomotive GHG emissions fall into four categories:



### Fuel Efficiency

Implementing technologies and work practices to improve the fuel efficiency of railway operations



### Fleet Renewal

Performing capital upgrades to existing locomotives or investing in new, more energy-efficient locomotives



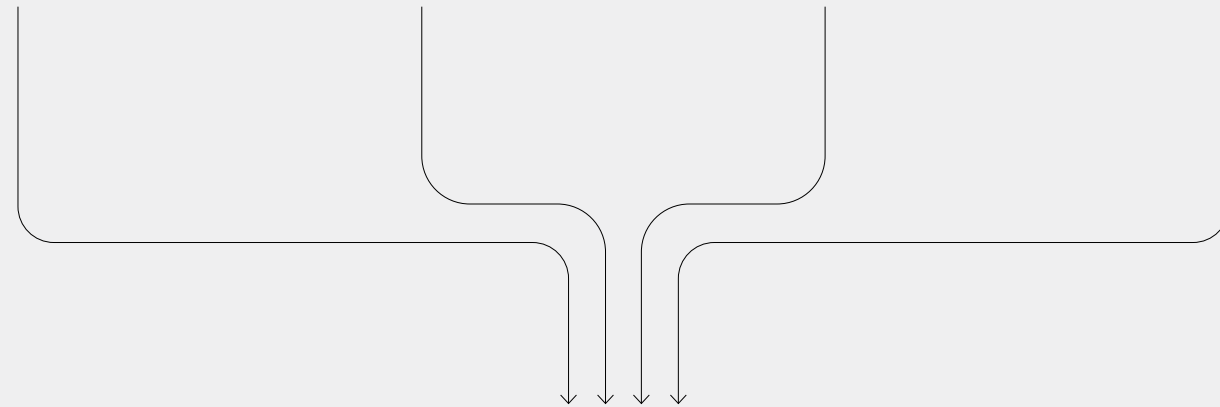
### Renewable Fuels

Increasing the use of biofuels and other renewable energy sources to power locomotives



### Alternative Fuels

Developing locomotives primarily or exclusively powered by a zero-emission energy source



**CPKC**

**Low-Carbon Freight Rail**

# Continuing Climate Action While Building a Foundation to Support Long-Term Objectives

CPKC is making great strides to diligently integrate its workforce, processes and systems, while remaining focused on a seamless operation that consistently delivers for our customers and stakeholders.

As this important foundational work continues in 2025, we believe we are well-positioned to achieve additional integration objectives that will further support CPKC's climate planning and actions.

In parallel to our integration work, climate action at CPKC continued through 2024 and will expand further in 2025.



**“We are proud to support a lower-carbon future for North America and recognize the pivotal role that rail freight transportation could play in this transition.”**

—CPKC Commitment to Climate Action (2023)

## CPKC Integration: 2023 - 2024 Climate Measures

### Assessing Climate Risks and Opportunities

- Completed linear physical climate risk assessment for Canadian network
- Updating Climate Scenario Analysis, including under a 1.5°C scenario
- Enhancing processes for tracking business impacts due to severe weather events



### Evaluating Renewable Fuels

- Fueled more than eight million liters of B20 locomotive fuel in year two of our a three-year sector-wide biofuel trial
- Strategic sourcing of renewable and low-carbon fuels
- Upgrading select infrastructure for potential further renewable fuel use
- Joined the Clean Fuels Alliance America



### Focus on Fuel Efficiency

#### Established Fuel Center of Excellence

- Integration of fuel data monitoring and operational data
- Changes to work practices such as isolating trailing locomotives
- Implemented HyperMiller to incent fuel efficient train handling

#### CPKC Locomotive Fleet Management

- Tier 4 locomotive purchases to support growth and fleet renewal
- Retirement of end-of-life line-haul locomotives
- Fleet modernization, including through the continued enhancement of fuel saving, energy management technologies

#### Enhancing Network Fluidity

- Established Mexico Midwest Express (MMX) intermodal service offering fast connections between Mexico and Chicago markets
- Created direct CPKC-CSX interchange connecting shippers in Mexico with U.S. South-East
- Constructed new U.S. operations centre in Kansas City
- Completed 14 siding extensions across the network since 2023 with an additional 17 siding projects planned through 2028

### Innovative Climate Actions

- Installed solar power at Knoche Yard in Kansas City
- Established a joint venture with CSX to build hydrogen locomotives
- Expanded hydrogen locomotive test fleet
- Commissioned hydrogen electrolysis plants in Calgary and Edmonton

### Enhanced GHG Data Systems

- Implemented cloud-based GHG data system
- Updates to process and controls for data management
- Harmonized GHG emissions disclosure
- Completed third-party assurance of GHG inventory



# Integrating Our Locomotive Fleet

As a freight railway, CPKC's locomotive fleet is critical to the operation of our business. As integration with legacy KCS has progressed, we have developed a strong understanding of the locomotive fleet requirements for our growing business. Our fleet is designed to support our near-term operational requirements and evolve with our long-term business objectives.



## Line-Haul Locomotives

- High-horsepower locomotives that power our trains
- Operate across our network, in all terrains and climates
- May power trains over long distances and could be interchanged with other railways
- 1400+ units in active service



## Switcher Locomotives

- Four or six axle locomotives used in yard operations or to service local customers
- Typically based at a specific location near customers and larger urban centers
- 800+ units in active service

## Integrated Fleet Principles

Managing the CPKC locomotive fleet is a complex and multifaceted undertaking that must continuously adjust to the 24/7 demands of our operation while planning for the future needs of our growing business. CPKC strives to maintain high performance standards for our locomotive fleet, built on the following principles:

### 1 Highly Available and Reliable:

- Consistently deliver a high tractive effort while burning less fuel, producing fewer emissions and enhancing the advantages of CPKC's rail network over trucks in the adaptation to a lower-carbon future
- Facilitate efficient maintenance and responsible fueling practices

### 2 Flexible:

- Interoperable across the freight rail sector
- Compatible with a range of conventional and renewable low-carbon diesel fuels
- Able to incorporate new technologies and provide an adaptable platform to test, evaluate and potentially implement changes

### 3 Resilient:

- Perform across a range of terrains and environmental conditions to safely execute our operating plan and fulfill our customer commitments with minimal service disruptions or mechanical downtime

# Modernizing Our Line-Haul Fleet



## Investing in Tier 4 Diesel-Electric Locomotives

Informed by our ongoing fleet planning, starting in 2025, CPKC will begin receiving Tier 4 Wabtec Evolution Series diesel-electric locomotives. We expect that these new line-haul locomotives will begin to be integrated into our fleet over time, both to replace locomotives approaching the end of their service lives and to potentially accommodate the growth of our business.

Each of these new locomotives will feature advanced traction control, efficient cooling systems and U.S. Environmental Protection Agency certified Tier 4 diesel engines. These new locomotives are expected to significantly reduce air pollutants, cutting nitrous oxides and particulate matter compared to Tier 3 diesel locomotives. Additionally, these locomotives are expected to enhance fuel economy and reliability, while further minimizing the emissions impact of CPKC's operations.



## Platform for Future Low-Carbon Technology

Beyond the enhanced performance, cleaner emissions and improved fuel efficiency, the addition of Tier 4 locomotives has the potential to support further decarbonization of CPKC's locomotive fleet. These advanced locomotives represent a dynamic and unique platform for exploring emerging lower-emission technologies and fuel alternatives in the years to come. Wabtec is lab testing the potential for hydrogen injection as a dual fuel for these engines. Tier 4 locomotives could also be capable of conversion to hydrogen fuel cells and battery technology as part of future locomotive refurbishment cycles.

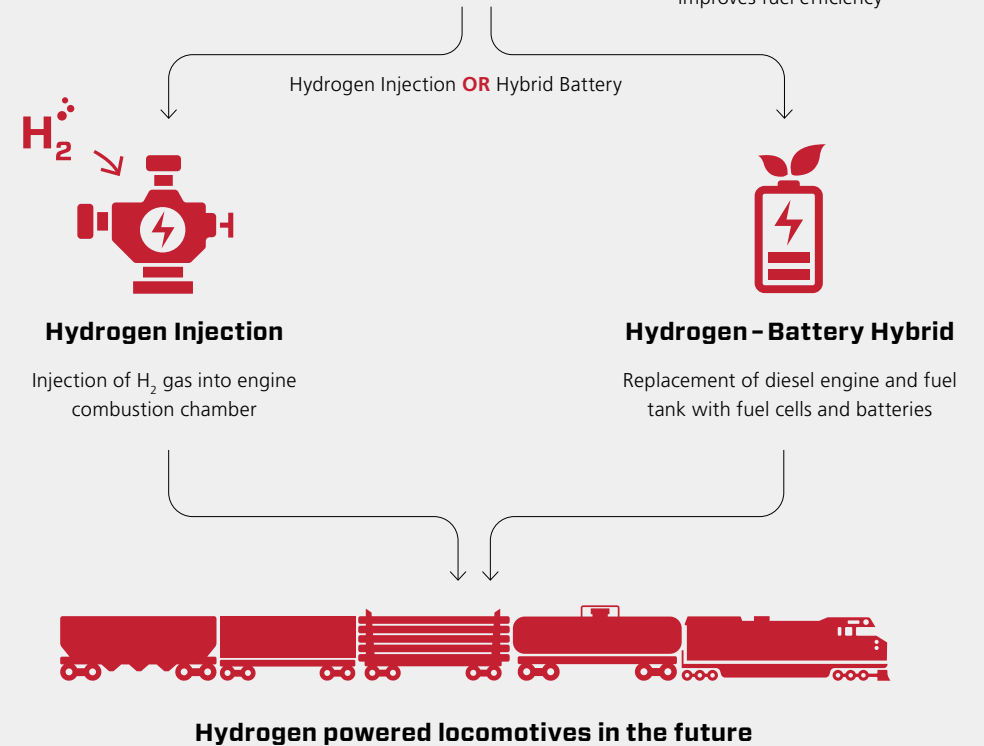
CPKC's acquisition of Tier 4 locomotives offers another potential way to test the use of hydrogen to support decarbonization across the freight rail sector. CPKC seeks to position itself as a leader in our sector by supporting low-carbon technology research and development through our Hydrogen Locomotive Program.

## Potential Low-Carbon Hydrogen Pathways for Diesel Locomotives

- Tier 4 diesel engine
- Advanced cooling system and auxiliary controls
- Best in class air emissions controls



- Remote performance monitoring and digital tools
- Increased tractive effort and performance
- Two stage turbocharger improves fuel efficiency





# Advancing Hydrogen Powered Locomotives



As one of the key potential pathways we are exploring to reduce GHG emissions from locomotive operations, CPKC continues to make meaningful progress on our Hydrogen Locomotive Program. Through this initiative CPKC is retrofitting diesel-electric locomotives with hydrogen fuel cells and battery technology to drive the locomotive's electric traction motors. The Hydrogen Locomotive Program has the potential to support the company's climate change ambitions and demonstrate a plausible pathway towards a low-carbon future for the freight rail sector. Our achievements are providing real-world testing knowledge and confidence in hydrogen technology that we need to shape future fleet decisions.



## Recent Hydrogen Program Highlights:

### 1 Switcher Locomotive

- In 2023, CPKC successfully commissioned our second switcher locomotive, CP 1002, which has now completed hundreds of hours in operation with zero in-service failures or safety incidents
- CPKC is currently converting two additional switchers and hydrogen fueling systems to support our Lethbridge Terminal and expand switcher locomotive testing further in 2025
- We believe CP 1002's demonstrated reliability and performance to date has increased sector confidence in hydrogen switchers triggering cooperation projects with CSX and a shortline railway

### 2 Hydrogen Fueling Infrastructure

- In 2024, CPKC together with ATCO EnPower commissioned hydrogen production and refueling facilities at CPKC yards in Calgary and Edmonton
- Each facility includes a 1 - megawatt (MW) electrolyzer, compression, storage and dispensing system for locomotive refueling
- The Calgary electrolyzer is powered in part by renewable electricity from CPKC's existing 5 MW solar power facility co-located at CPKC's headquarters

### 3 Line-Haul Locomotive

- In September 2024, our first line-haul locomotive, CPKC 1200 (paired with fuel tender CP 10001), completed its first phase of testing as part of a fully loaded bulk train from Sparwood to Golden, B.C.
- CPKC 1200 continues testing trials as part of a unique pilot program in cooperation with Elk Valley Resources
- CPKC 1201 is being commissioned as our second line-haul locomotive to commence field testing in 2025

The accomplishments of CPKC's Hydrogen Locomotive Program have been made possible in part by funding from:



# High Standards for Low-Carbon Locomotives

CPKC is driven by a commitment to moving customers' freight in the safest, most reliable and efficient manner possible. Our way of Precision Scheduled Railroading (PSR) is built on the foundations of providing service, controlling costs, optimizing assets, operating safely and developing people. The introduction of any new technology into our business will only follow rigorous testing and assessment designed to ensure it aligns with our PSR foundations and meets our high performance and safety standards.

As CPKC continues to invest toward future low-carbon operations, we are also striving to improve our understanding of the potential mileposts yet to come. We are responsibly renewing our locomotive fleet to support our commitment to customer service, drive emissions improvements and better position our fleet for decarbonization in the future. At the same time, we continue to explore the expansion of testing hydrogen as an alternative locomotive fuel and its potential to support net-zero locomotive operations.

## Testing Hydrogen Locomotives in Real-World Operations

Adopting low-carbon emitting locomotives requires groundbreaking technology development involving years of research and testing across diverse operating conditions to determine its suitability for the integrated North American freight rail sector.

This testing evaluates safety, reliability and performance over time in a wide range of real-world operating conditions, including various commodities in all kinds of weather and terrains. We believe that these tests are critical for CPKC to build confidence

among our stakeholders, including investors, regulators, customers and industry partners, prior to large-scale deployment. Additionally, freight service testing helps improve operational experience, drive cost efficiency and prevent unanticipated maintenance issues post-deployment. It provides essential data to evaluate the technology and optimize processes. This empowers informed decision-making for the future wide-scale adoption of low-carbon hydrogen freight rail operations.



**“CPKC serves as an ideal test bed for hydrogen locomotive technology, offering a chance to evaluate operational performance across diverse terrain, weather and traffic conditions. This technology has the potential to transform our industry, and we are extremely proud to lead this initiative.”**

—Keith Creel, CPKC President & CEO



CP 1002 during hydrogen fueling event



# Long-Term Testing and Future Deployment Considerations

## CPKC Hydrogen Locomotive Test Fleet (as of February 2025)

CPKC Unit #	Initial In-Service Year
<b>Switcher Locomotives</b>	
1001*	2021
1002**	2023
1003	2025
1004	2025
1005	production in 2025
1100	production in 2025
1101	production in 2025
1102	production in 2025
<b>Line-Haul Locomotives</b>	
1200	2024
1201	2025
<b>H<sub>2</sub> Fuel Tender Cars</b>	
10001	2024
10002	2025

\*Enhancing CP 1001 to Generation IV technology in 2025

\*\*Enhancing CP 1002 to Generation IV technology in 2025 and redesignating as CP 1103

## Evaluating Hydrogen Locomotives

When considering the possibility of a future deployment of hydrogen locomotives at scale, CPKC must carefully evaluate the viability of hydrogen to meet our strict operational needs. Key elements of this evaluation include:

- Assessment of all testing results to assure continuity of high performance standards for our locomotive fleet
- Analyzing the economic feasibility and operational impact of hydrogen locomotives compared to traditional diesel engines and other potential locomotive decarbonization pathways
- Consideration of government policy and regulatory expectations
- Alignment with the broader North American freight rail sector for interoperability
- The capacity and reach of hydrogen supply chains
- The capacity for large-scale hydrogen locomotive production

Compiling this information relies on careful planning and can take significant time. It is a common practice for the rail sector to deploy, operate and evaluate new locomotive technologies to collect a minimum of twenty years of operational data\* to ensure that locomotives meet required performance standards.

\*Testing a new technology on two locomotives for three years would provide six years of operating data.



CP 1003 during conversion process

# A Potential Pathway for Decarbonization of the CPKC Fleet

We are exploring the widespread decarbonization across our locomotive fleet. While the majority of CPKC's locomotive GHG emissions come from our line-haul operations, our experience to date exploring the potential feasibility of hydrogen locomotives indicates that switcher locomotives have fewer potential obstacles to overcome as they are not dependent on interoperability with other Class 1 railroads, are more likely to have a hydrogen supply available sooner and have a lower level of complexity.

The added complexity of converting line-haul locomotives to hydrogen, based on our experience to date, is indicated by the line-haul locomotive requirements for increased horsepower, advanced control systems, a fleet of fuel tender cars and a hydrogen supply chain that extends network-wide. Conversely, hydrogen switcher operations can remain captive to a specific operating territory, benefiting from centralized hydrogen fueling and maintenance support.

As a result, CPKC is likely to be in a position to evaluate the viability of deploying hydrogen switcher locomotives at scale earlier than will be possible with line-haul locomotives. Our ability to scale up either switcher or line-haul locomotives is highly dependent on the current status and availability of technological developments, both across the industry and at CPKC.

As the status and availability of technological developments continues to evolve, and as we continue to gain critical insight into the deployment of various types of hydrogen locomotives, we may further adjust our strategy, goals, priorities, investments and initiatives in this area.

## Exploring the Potential Mileposts Towards Locomotive Decarbonization

### Phase 1



#### Integration, Renewal & Innovation (2020 - 2025)

- Integrate CPKC fleet and management systems and initiate investment in Tier 4 locomotives
- Focus on fuel efficiency and testing of renewable fuels to reduce GHG emissions within the locomotive fleet
- Design, develop and pilot the rail industry's first hydrogen locomotive conversion
- Expand Hydrogen Locomotive Program to convert multiple locomotives and test performance of hydrogen fuel cells and batteries across a wide variety of operating conditions
- Engage funding partners, industry peers and supply chain to support broader deployment of hydrogen locomotive technology

### Phase 2



#### Expanded Testing & Assessment (2026+)

- Monitor development of locomotive manufacturers' hydrogen injection demonstration
- Achieve testing threshold for both switcher and line-haul hydrogen locomotives
- Complete hydrogen viability assessment and deployment planning for switcher fleet and line-haul fleet
- Explore possibility of deploying hydrogen switcher locomotives at scale

### Phase 3



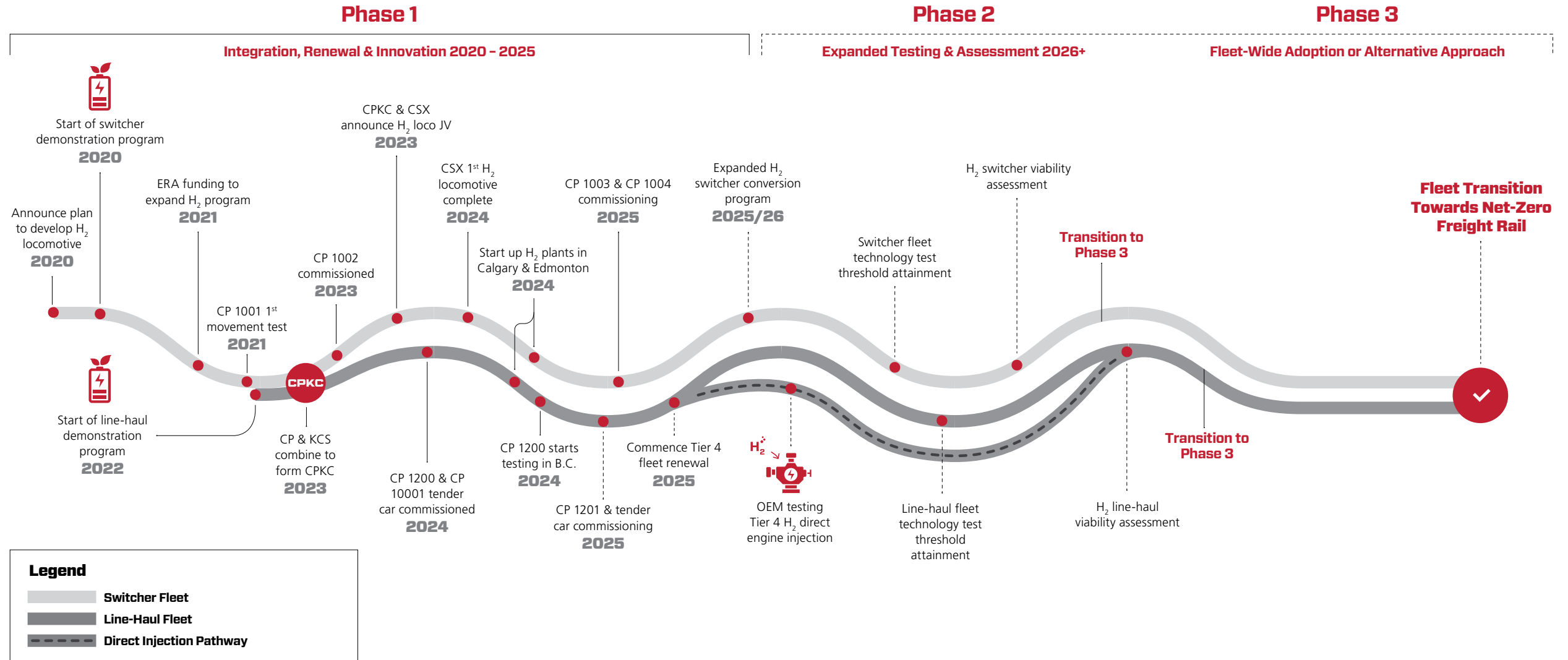
#### Fleet-Wide Adoption

- Exploring possibility of widespread deployment of hydrogen line-haul locomotives
- Assess feasibility of scaling up supply chains and production of hydrogen locomotives, fueling systems and supply
- Continue evaluating opportunities for sector-wide integration and incremental adoption of hydrogen locomotives



# CPKC Hydrogen Locomotive Program

## An Illustrative Timeline for Potential Mileposts<sup>1</sup>



<sup>(1)</sup> The mileposts on this page are illustrative and subject to change. Our ability to achieve these in a timely manner or at all is subject to a number of factors, including those outlined in the section "A Potential Pathway for Decarbonization of the CPKC Fleet" on page 16.



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Solar Installation at CPKC E. Hunter Harrison Corporate Campus, Calgary, Alta