

2024 UNION PACIFIC SUSTAINABILITY METRICS





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Union Pacific CEO Jim Vena

OUR APPROACH TO BUILDING AMERICA RESPONSIBLY

As noted last year, Union Pacific publishes our **Building America Report** biennially. While the full report is released in even-numbered years, we will provide this annual update of our sustainability metrics and key processes to keep stakeholders informed.

As the largest freight railroad in North America, we know how crucial it is to care for our people, the environment, and the communities we serve. At Union Pacific, sustainability supports our strategy for Safety, Service, and Operational Excellence. Rail transport remains the most fuel-efficient method to move freight over land, lowering greenhouse gas emissions by up to 75% compared to trucks. When we grow responsibly, everyone benefits, including in the following ways:

Safety is our top priority and an integral part of our culture. In 2024, we enhanced our safety programs and processes, improving our personal injury rate by 23% and reducing our reportable derailment incident rate by 20% compared to 2023. Our goal is to lead the industry in safety, and we continually seek new ways to improve.

Employee well-being is also paramount at Union Pacific. We invest in comprehensive benefits, training, and development programs to ensure our workforce is skilled, supported, and engaged to meet future challenges. By supporting our employees, we drive sustainable growth for our company and the communities we operate in.

Environmental sustainability gives us a competitive edge, and we continue to invest in new tools and technologies to further reduce our emissions. For instance, we are fostering the growing U.S. market for biofuels, including their use in our locomotives. In 2024, we became the first Class I railroad to join the Clean Fuels Alliance and received their Industry Partnership Award. We also deployed our first diesel-battery hybrid locomotive for testing and continue to modernize our fleet for better reliability and fuel efficiency.

This sustainability metrics report showcases our commitment to transparency and the tangible results we are achieving. I am proud of the strides Union Pacific is making as we grow responsibly.

A handwritten signature in black ink that reads "V. J. Vena".

Jim Vena, CEO



BUILDING A RESPONSIBLE FOUNDATION

Strong governance practices are fundamental to our operations. By continually updating and improving our safety protocols and implementing comprehensive risk management strategies, we provide a safe working environment for our employees. Our commitment to ethics is reinforced through updated policies and robust training programs. Through these efforts, we maintain trust with our stakeholders.



Strengthening Safety Processes and Culture

Our safety strategy is anchored on four key pillars: Injury Prevention, Leveraging Technology, Situational Awareness Testing, and Peer-to-Peer Engagement. Our Injury Prevention efforts target critical tasks where non-compliance can lead to serious injury. We leverage technology by eliminating or automating the highest risk activities. Our Situational Awareness Testing program, COMMIT, focuses on real-time observation and coaching while Peer-to-Peer fosters a culture of safety through employee ownership and proactive communication. These focused efforts have led to a 23% reduction in personal injury rates and a 20% decrease in derailment incidents compared to 2023.

Implementing Objective Cause-Finding Protocols for Safety Incidents

We have developed investigative protocols tailored to various incident types, enabling us to identify the most probable objective causes of safety incidents. This process incorporates physical evidence, geometrical measures, deviations from standards measurements, video and picture evidence along with employee interviews and simulation capabilities. Objective Cause-Finding is the key to our risk identification and mitigation (RIM) approach to improving safety. We have also developed mitigation policies, protocols, and standardized work tasks that have proven effective in addressing and counteracting identified risks over time.

Our Comprehensive Safety Management System Identifies and Mitigates Risks

Our Safety Management System (SMS) is a structured approach to identify risks and build mitigation programs to minimize incident exposure. Our SMS is built upon the following key components: 1) Organizational Management, 2) Safety & Productivity Measures, 3) Safety Action Plans, 4) Document Management, and 5) Risk Reduction Programs. The SMS also includes considerations for further strengthening Union Pacific's safety culture. We utilize the SMS on a regular basis to prioritize different types of identified safety risks, develop risk mitigations, and assess the effectiveness of our current risk reduction programs at reducing safety incidents.

We Utilize External Safety Audits to Refine and Enhance Our Safety Processes

In 2024, we worked with independent third-party safety experts to assess our safety processes and compliance with safety rules. Additionally, the Federal Railroad Administration conducts annual audits of our safety procedures. These comprehensive assessments encompass various aspects, including accident and incident reporting, adherence to the Department of Transportation's Drug and Alcohol Testing program, and compliance with risk reduction regulations. These audits help our company drive continuous improvement related to our safety programs.

Refreshing the Code of Conduct and Enhancing Ethics Training

In 2024, we refreshed the Company's Code of Conduct, The How Matters. New sections provide guidance to employees on Ethical Decision Making, Employee and Leader Responsibilities, Workplace Respect, and Communicating with Regulators. Alongside the refresh, we implemented a third-party platform for annual employee training on a variety of ethics and compliance topics, which utilizes customized, scenario-based training. In addition to the required computer-based trainings, we have incorporated more in-person learning sessions targeted at engaging with management employees across the network to enhance ethical decision making and reinforce expectations of our leaders.

Testing Our Preparedness For Major Events

Last year, we tested Company senior and executive leadership's preparedness and ability to respond to a geopolitical event and a major wildfire incident impacting Union Pacific and the communities we serve. Tabletop participants leveraged our crisis management plans and developed strategies to minimize anticipated impacts to supply chains, commercial activity, infrastructure, and technology, while providing critical support to employees and external stakeholders.

INVESTING IN OUR **WORKFORCE**

Investing in our employees is a key priority at Union Pacific, as we strive to create a supported and engaged workforce. By supporting employee well-being, providing comprehensive training, and actively seeking employee feedback, we foster a culture of continuous improvement and high performance.



Expanding Mental Health and Substance Abuse Support

Our Employee Assistance Program now covers all employees and eligible dependents, including domestic partners, regardless of their healthcare plan or if they opt out of our coverage. This enhanced benefit provides up to six cost-free counseling sessions with a master's level licensed counselor. This support aims to promote overall well-being and quality of life for our employees and their families.

Increasing Paid Maternity Leave to Support Families

We have enhanced our maternity leave policy for management employees, increasing paid maternity leave for birth mothers from eight to twelve weeks. This benefit upgrade underscores our commitment to fostering a supportive environment for our employees and their loved ones.

Connecting All Employees To Our Company Strategies

Last year, we launched "How We Win Together Training" for all employees. This training provides an interactive experience to build every employee's understanding of the rail industry, Union Pacific's strategic priorities, and how each employee's role impacts our strategic success. To date, more than 30,000 employees have successfully completed the training.

2024 Employee Engagement Shows Positive Increases in Engagement, Leader Effectiveness, and Belonging

With a retention rate of nearly 90%, we strive to create an environment where every employee has the opportunity to succeed. We use a third-party confidential survey platform to track its culture. Last year, employee engagement increased 5 points, manager effectiveness increased 11 points and belonging increased 6 points.

Assessing Our Safety Culture For Improvement Opportunities

In 2024, we conducted a comprehensive Safety Culture Assessment, gathering feedback from thousands of field employees through surveys, focus groups, and listening sessions. This initiative, supported by a neutral third-party company, identified valuable improvement opportunities that we are implementing.



CHAMPIONING ENVIRONMENTAL STEWARDSHIP

Freight rail leads other forms of surface transportation when it comes to minimizing greenhouse gas (GHG) emissions, and we expect rail will continue to play a critical role in mitigating and abating the impacts of climate change. Moving freight by rail instead of truck reduces GHG emissions by up to 75%. Therefore, converting freight transportation from truck to rail benefits the environment and can result in a reduction in our customers' Scope 3 GHG emissions.



Freight Rail: One of the Most Fuel-Efficient Transport Modes

Our environmental activities align with our overall corporate strategy of Safety, Service and Operational Excellence = Growth. By prioritizing safe operations, we protect both people and the environment. Additionally, our efficiency focus helps to decrease both greenhouse gas and criteria pollutant emissions (PM, NOx, etc.) while providing excellent service levels that encourage customers to switch from truck to rail transportation.

Tracking Our Decarbonization Progress

Our absolute greenhouse gas (GHG) emissions for Scope 1 and 2 increased by 1.2% year over year, and the same GHG emissions on an intensity basis (per million gross ton-miles) were flat. Cumulatively, we have reduced our Scope 1 emissions by 18.1% vs. our 2018 baseline against our 2030 goal of a 50.4% reduction. We also reduced our absolute GHG emissions for our science-based target Scope 3 categories by 8.4% vs. 2023, reaching a cumulative reduction vs 2018 baseline of 19.5% against our 2030 goal of a 50.4% reduction. Our science-based target for Scope 3 includes categories 1 (purchased goods and services), 2 (capital goods), and 3 (fuel and energy-related activities).

Advancing Renewable Fuels Utilization

We continue to affirm that biofuels are a key strategy in our efforts to decarbonize our operations over the near term. In 2024, our full-year utilization of biofuels was 5.2%. We were the first Class I railroad to join the Clean Fuels Alliance and received their Industry Partnership Award in 2024. Our testing collaborations with a locomotive OEM and other Class I railroads led to certification of blends of up to 55% renewable diesel and 20% biodiesel in our locomotives.

Increases in utilization of biofuels depend on procurement economics and the performance of the fuel in our locomotive engines. As we continue to utilize biofuels, we are gaining experience regarding the additional long-term maintenance practices required for biofuels. To that end, we have revised our biofuels utilization goals, aiming for 5-7% utilization during 2025, and 10-20% utilization by 2030.

Investing in Hybrid Locomotive Technology For Fuel Efficiency and Reduced Emissions

In 2024, we introduced our first hybrid switch locomotive, developed by our Mechanical Department in collaboration with ZTR. These locomotives can run on a traditional diesel engine or stored battery power, with the battery recharging during engine operation. This technology improves fuel efficiency and reduces emissions by up to 80% compared to traditional locomotives in local service. We plan to deploy additional units in 2025.

Continuing Locomotive Modernizations Program for Reliability and Fuel Efficiency

In 2024, we modernized an additional 160 older locomotives and plan to upgrade 240 more locomotives during 2025 and 2026. Building on our efforts in 2023, when we modernized 200 locomotives, these upgrades are projected to deliver around 350 tons of carbon reduction per locomotive annually. The total order for 600 modernizations is expected to realize approximately 210,000 tons in annual emission reduction.

Enhancing Customer Emission Data to Encourage Shift to Rail

We listened to our customers who requested new tools for monitoring their Scope 3 emissions attributable to Union Pacific shipments. We now utilize granular operational data for each train and car movement to calculate customers' Scope 3 emissions. Customers can utilize these emissions datasets to understand how they can reduce their transportation Scope 3 emissions by moving more of their shipments from trucks to Union Pacific.

By choosing Union Pacific for rail transportation over truck alternatives during 2024, our customers avoided an estimated 22.2 million metric tons of GHG emissions

UNION PACIFIC

SUSTAINABILITY METRICS

Providing detailed, transparent, and accessible information on sustainability topics is an important component of our sustainability strategy. Some of the figures and information in the following tables have been compiled and, where necessary, restated from previous sustainability reports to reflect changes in reporting. All currency-related values are reported in US dollars.

Reporting boundary: Data is updated, at a minimum, on an annual basis to reflect any changes in activities, methodologies, frameworks, or data availability covered by this boundary. The sustainability data metrics reported cover all activities consolidated for financial reporting purposes with one exception: unless identified in the footnotes, data presented below does not include activities by MHX, a transload subsidiary acquired by Union Pacific in February 2023. We continue to integrate MHX data into our sustainability reporting. For perspective, MHX revenue comprises less than 0.5% of total Union Pacific revenue, and MHX's employee full-time equivalent headcount comprises less than 0.5% of total Union Pacific headcount.



Data	Unit	2018	2019	2020	2021	2022	2023	2024
ACTIVITY DATA								
Route Miles ¹	Miles	32,326	32,340	32,313	32,452	32,534	32,693	32,880
Gross Ton-Miles (GTM) ²	Billions	928.6	846.6	771.8	817.9	843.4	837.5	847.4
Revenue Ton-Miles (RTM) ³	Billions	474.0	423.4	385.0	411.3	420.8	413.3	409.7
Average Max Train Length ⁴	Feet	7,036	7,747	8,798	9,334	9,329	9,356	9,469
Locomotive Productivity ⁵	GTM / Horsepower-Day	106	120	137	133	125	129	135
Freight Car Velocity ⁶	Daily Miles Per Car	198	209	221	203	191	204	208
Operating Revenues ⁷	Millions of US Dollars	22,832	21,708	19,533	21,804	24,875	24,119	24,250

1

Excludes other main line, passing tracks and turnouts, and switching and classification yard lines.

2

Gross ton-miles are calculated by multiplying the weight of loaded and empty freight cars by the number of miles hauled.

3

Revenue ton-miles are calculated by multiplying the weight of freight by the number of miles. This number excludes the weight of locomotives and non-revenue freight.

4

Train length is the average maximum train length on a route measured in feet.

5

Locomotive productivity is gross ton-miles per average daily locomotive horsepower available.

6

Freight car velocity measures the average daily miles per car on our network. The two key drivers of this metric are the speed of the train between terminals (average train speed) and the time a rail car spends at the terminals (average terminal dwell time).

7

Operating Revenues consist of freight revenues, other subsidiary revenues, accessorial revenues we earn when customers retain equipment owned or controlled by us or when we perform additional services such as switching or storage, and miscellaneous contract revenue.

GOVERNANCE

Strong governance practices are fundamental to our operations. By continually updating and improving our safety protocols and implementing comprehensive risk management strategies, we provide a safe working environment for our employees. Our commitment to ethics is reinforced through updated policies and robust training programs. Through these efforts, we maintain trust with our stakeholders.



Data	Unit	2018	2019	2020	2021	2022	2023	2024
Board of Directors								
Board Size	#	11	12	12	12	12	12	12
People of Color	#	3	4	4	4	3	3	3
Female	#	2	2	2	3	4	4	4
Safety								
Train-Related Incidents & Accidents	#	583	632	451	430	498	462	400
Train-Related Accidents Involving the Release of Hazardous Materials	#	3	11	15	7	5	4	4
Non-Accident Release of Hazardous Materials	#	170	148	128	130	118	129	122
Trespassing Accidents	#	288	319	336	415	434	533	445
Crossing Accidents	Accidents per million train miles	2.69	2.72	3.04	3.51	3.58	3.67	3.74
Reportable Personal Injury Rate	Reportable injuries occurring per 200,000 employee work hours	0.82	0.90	0.90	0.98	1.13	1.17	0.90
Reportable Equipment Incident Rate	Number of accidents per million train miles	3.28	4.28	3.54	3.80	4.30	4.00	3.41
Number of Federal Railroad (FRA) Recommended Violation Defects ²	Count of recommended defects	1,118	1,385	1,335	1,817	1,472	2,462	2,233
Lost-Time Injury Frequency Rate (LTIFR) - Employees	Lost time injuries occurring per 200,000 employee work hours	0.50	0.58	0.60	0.66	0.89	0.75	0.61
Lost-Time Injury Frequency Rate (LTIFR) - Contractors	Lost time injuries occurring per 200,000 contractor work hours					0.41	0.55	0.43
Lost-Time Injury Severity Rate - Employees	Number of days lost due to injury x 1,000 / total hours worked	0.51	0.71	0.77	0.90	0.56	0.24	0.36
Total Number of Employee Hours Worked	#						62,937,947	60,265,580

Data	Unit	2018	2019	2020	2021	2022	2023	2024
Fatalities								
Employee Fatalities	#	3	2	1	2	5	0	5
Contractor Fatalities	#	3	1	1	4	3	2	0
Employee Fatality Rate	Employee work-related fatalities / total number of full-time equivalent employees	0.000068	0.000054	0.000031	0.000062	0.000151	0.000000	0.000154
Cybersecurity								
Number of Information Security Breaches or Incidents ³	#	0	0	0	0	0	0	0
Total Number of Customers and Employees Affected by Data Breach	#	0	0	0	0	0	0	0
Total Amount of Fines/Penalties Paid in Relation to Information Security Breaches or Other Cybersecurity Incidents	#	0	0	0	0	0	0	0
Number of Substantiated Complaints - Breaches of Customer Privacy	#	0	0	0	0	0	0	0
Supplier Engagement								
Number of Suppliers	#	8,126	5,314	4,672	4,828	4,937	5,276	5,776
Strategic Suppliers ⁴	#	18	21	19	16	17	19	19
Strategic Suppliers Audited During the Year ⁴	%	100	96	41	100	100	100	100
Strategic Supplier Inspections ⁴	#					42	28	29
Strategic Supplier Reviews ⁴	#					17	18	19
% of Targeted Suppliers who Participated in Supplier Sustainability Questionnaire	%					100	100	100
% of Annual Purchasing Spend Covered by Suppliers Asked to Participate in Supplier Questionnaire	%					27	46	47
Community Giving								
Community Ties Giving Program	Millions of US Dollars	20.1	22.2	26.8	22.5	24.1	22.2	19.9

Data	Unit	2018	2019	2020	2021	2022	2023	2024
Ethics								
Total Values Line Reports	#	1,485	1,260	1,271	1,222	1,342	1,293	1,361
Substantiated Values Line Cases	%	27	29	26	27	27	26	29
Number of Confirmed Corruption Incidents	#	0	0	0	0	0	0	0
Number of Confirmed Money Laundering Incidents	#						0	0
% of Employees Completing The How Matters Ethics Training	%						96	99
# of Employees Receiving (Live) The How Matters Ethics Training ⁵	#						501	351
Number of Internally Published Compliance Connections	#	2	2	2	3	12	14	10
% of Required Employees Reporting Whether or not They Had a Conflict of Interest ⁶	%				100	100	100	100
% of Required Employees Completing Gifts or Payments to Public Officials Disclosure ⁶	%				100	100	100	100
% of Required Employees Completing Sexual Harassment Training ⁷	%				99	99	99	98
% of Required Employees Completing Foreign and Corrupt Practices Act Training (FCPA) ⁸	%				88	84	89	98
% of Required Employees Completing Anti-Trust Training ⁸	%				96	98	100	100

1 Weekly inspections, multiplied by miles of track on which those inspections occurred. Result divided by total main track miles.

2 Data based on Federal Railroad Administration inspectors writing inspection reports with recommended violations. Union Pacific did not receive violation notices on all recommended violations.

3 Union Pacific defines a breach as a penetration of the system in which the attacker obtains confidential information.

4 "Strategic Suppliers" provide critical materials or services that are difficult to obtain from other suppliers, whose failure would impact UP operations, and have a high capacity to add value through product innovation or Total Cost of Ownership improvement.

5 Live training is required for new management employees, and current employees moving from craft professional to management positions.

6 Required for management and American Railway and Airway Supervisors Association (ARASA) employees.

7 Training required for specific locations, not entire employee population (CA, NY, IL, Chicago).

8 Training required for certain management employees only.

SOCIAL

Union Pacific strives to attract all available talent and has always been a merit-based performance company. We are committed to creating an environment where all people can be their best, personally and professionally.



Data	Unit	2018	2019	2020	2021	2022	2023	2024
Workforce Characteristics								
Total Workforce ¹	#	44,312	36,855	32,204	32,124	33,179	32,973	32,439
Total Full-Time Employees ²	#						32,945	32,219
Total Part-Time Employees ³	#						174	178
Total Temporary Employees	#						0	0
Craft Professionals	#	38,279	31,353	26,893	26,835	27,881	27,926	27,411
Management Employees ⁴	#	6,033	5,502	5,311	5,289	5,298	5,047	4,833
Average Age ⁴	Years	44.5	46.1	46.8	46.4	46.5	46.6	46.9
Average Years of Service ⁴	Years	13.7	15.4	16.3	15.7	15.8	15.9	16.2
Employee Turnover Rate	%	9	11	12	12	10	10	10
% of Total Employee Turnover That Was Voluntary ⁵	%	63	68	66	59	58	56	62
Retention Rate	%	91	90	89	89	90	90	90
Employee Gender ⁶								
Total Female	%	5.3	5.5	5.6	5.3	5.5	5.5	5.1
Total Male	%	94.7	94.5	94.4	94.7	94.5	94.5	94.9
Females in All Management Positions	%	23	23	21	21	21	21	20
Females in Junior Management Positions	%	23	23	21	21	21	21	20
Females in Top Management Positions	%	21	23	22	28	27	25	26
Females in Management Positions with Revenue Generating Functions	%	36	38	37	35	34	33	32
Females in Craft Positions	%	3	3	3	2	3	3	3
Females in STEM-Related Functions	%	20	18	16	16	16	16	15

Data	Unit	2018	2019	2020	2021	2022	2023	2024
People of Color ⁷								
Asian Total	%	2	2	2	2	2	2	2
Black Total	%	12	12	12	12	13	14	14
Hispanic Total	%	14	14	14	14	15	15	16
Native American Total	%	1	1	2	2	2	1	2
White Total	%	71	71	70	69	67	66	66
2 or More Total	%			1	1	1	1	1
People of Color Total	%	29	29	30	31	33	34	34
Generation ⁸								
Traditionalists	%	<1	<1	<1	<1	<1	<1	0
Baby Boomers	%	21	21	19	17	14	12	10
Generation X	%	52	55	57	58	56	56	56
Millennials	%	26	23	23	25	27	29	30
Generation Z	%	<1	<1	<1	1	3	4	4
Veterans								
Number of Veterans	#	8,628	6,985	6,040	6,038	6,073	5,871	5,605
Percent of Veterans	%	20	19	19	19	18	18	17
New Hires ⁹								
Total Workforce New Hires ¹⁰	#	4,679	953	310	1,314	4,170	3,995	2,485
Hires - Management	#	672	327	181	386	614	370	258
Hires - Craft Professionals	#	4,007	626	129	928	3,556	3,625	2,227
Positions Filled by Internal Candidates	#	1,237	690	805	978	1,262	485	612
Internal Hiring Rate ¹¹	%	21	42	72	43	23	11	20
Average Hiring Cost ¹²	US \$	1,401	3,708	9,386	3,028	2,579	8,576	7,801
Employee Compensation								
CEO to Employee Compensation ¹³	Ratio			168:1	162:1	153:1	35:1	131:1
Median Employee Compensation ¹⁴	US \$			77,778	81,179	86,778	108,244	103,190
Lowest Hourly Compensation	US \$						25.15	26.12
Male to Female Compensation	Ratio						1:1	1:1
White to People of Color Compensation	Ratio						1:1	1:1

Data	Unit	2018	2019	2020	2021	2022	2023	2024
Employee Development								
Employee Engagement (Favorability Index)	%		54	49	55	49	53	58
Management Employees who Receive Formal Performance Reviews ¹⁵	%	99	99	99	99	99	99	99
Management Employees with Individual Development Plans	%	13	15	39	93	94	98	93
Reported Employee Volunteer Hours ¹⁶	Hours	9,309	6,532	4,028	3,821	3,907	5,560	5,862
Employees Utilizing the College Tuition Program	#							509
Training ¹⁷								
Average Hours of Training per Employee	Hours	71	33	23	29	47	70	74
Online Training Courses Completed	#	1,188,360	1,045,872	921,907	860,365	972,252	1,100,713	1,152,324
Average Amount Spent per Employee on Training and Development ¹⁸	\$	2,205	1,362	696	959	2,037	3,010	1,313
Environmental Training Participation ¹⁹	%						98	98

1 Beginning with 2022 reporting, interns are excluded from the number reported. Starting in 2023, this number includes MHX employees.

2 Includes total workforce, excludes part-time and intern employees.

3 Includes part-time and intern employees.

4 Beginning with 2022 reporting, interns are excluded from the number reported. Starting in 2024, this number includes MHX employees.

5 This number is the % of the turnover rate from the line above that was voluntary. It includes voluntary quits and retirements.

6 Reported data is self-reported.

7 Includes total workforce (management and craft professionals), excludes part-time and intern employees.

8 Numbers not summing to 100% are due to rounding.

9 All numbers in this section include interns.

10 Sum of management and craft employee new hires.

11 Methodology: number of positions filled by current employees (internal hire) divided by total number of positions hired for the year, included entry-level craft employee positions normally hired externally.

12 Costs include all payments actually incurred during the year, including multiple recurring payments to the same employee.

13 We had two individuals in the role of CEO during 2023. We elected to use the compensation of Mr. Vena, the active CEO as of December 31, 2023, for purposes of determining the CEO pay ratio. Mr. Vena became CEO in August 2023. For more details, see page 78 in our 2024 proxy statement.

14 The median annual compensation amount reported in the Company’s Proxy Statement was \$134,862 and is calculated differently than the \$103,190. The \$134,862 includes amounts for pre-tax medical premiums, 401(k)/thrift plan contributions and employer cost of health coverage.

15 Management employees on long-term disability or military service for the entire year do not receive a formal performance review.

16 Data only includes employee volunteer hours where the employee contributed greater than 40 hours.

17 Because new craft professional hires typically incur more training hours in their first year of employment, average training hours may fluctuate in part based on the relative proportion of new hires to total employees. All numbers in this section include intern employees.

18 In 2020, the COVID pandemic severely restricted training completions due to limitations on employee travel and reducing new employee hiring activity.

19 Reflects % of total workforce completing at least one environmental training course.

ENVIRONMENTAL

Freight rail leads other forms of surface transportation when it comes to minimizing greenhouse gas (GHG) emissions, and we expect rail will continue to play a critical role in mitigating and abating the impacts of climate change. Moving freight by rail instead of truck reduces GHG emissions by up to 75%. Therefore, converting freight transportation from truck to rail benefits the environment and can result in a reduction in our customers’ Scope 3 GHG emissions.



Data	Unit	2018	2019	2020	2021	2022	2023	2024
Fuel Efficiency								
Fuel Consumption for Operations	Gallons per Thousand GTM	1.150	1.126	1.100	1.086	1.078	1.088	1.082
Fuel Efficiency Savings vs 2018 Baseline	Millions of Gallons		20	39	52	61	52	57
GHG Emissions ¹								
Direct (Scope 1) GHG Emissions ²	Metric Tons CO2Eq	11,313,933	10,083,282	8,896,946	9,236,750	9,266,469	9,156,525	9,286,290
Energy Indirect (Scope 2) GHG Emissions, Location-Based ³	Metric Tons CO2Eq	277,200	261,372	241,805	229,081	180,695	215,799	206,771
Energy Indirect (Scope 2) GHG Emissions, Market-Based ³	Metric Tons CO2Eq	311,560	314,075	308,714	237,403	180,950	235,705	227,007
Total Calculated Scope 3 Emissions	Metric Tons CO2Eq	6,243,210	4,046,285	3,573,186	3,595,330	5,703,764	5,324,487	4,836,332
Scope 3 Category 1: Purchased Goods and Services ⁴	Metric Tons CO2Eq	659,281				771,274	823,752	805,302
Scope 3 Category 2: Capital Goods ⁵	Metric Tons CO2Eq	559,287				670,206	619,214	226,419
Scope 3 Category 3: Fuel and Energy Related Activities	Metric Tons CO2Eq	3,824,960	3,226,663	2,847,397	2,956,497	3,025,471	2,989,164	3,028,819
Scope 3 Category 4: Upstream Transportation and Distribution ⁶	Metric Tons CO2Eq	697,657				556,190	351,916	259,198
Scope 3 Category 5: Waste Generated in Operations	Metric Tons CO2Eq	21,212	452,268	530,310	506,185	148,375	111,219	83,627
Scope 3 Category 6: Business Travel	Metric Tons CO2Eq	18,246	15,499	8,139	10,689	38,905	77,382	37,357
Scope 3 Category 7: Employee Commuting	Metric Tons CO2Eq	141,618				174,299	40,688	63,397
Scope 3 Category 13: Downstream Leased Assets	Metric Tons CO2Eq	8,470				4,530	7,481	6,874
Scope 3 Category 15: Investments	Metric Tons CO2Eq	312,479				314,515	303,671	325,339
Total Calculated Scope 1 & 2 Emissions ⁷	Metric Tons CO2Eq	11,591,133	10,344,654	9,138,751	9,465,831	9,447,164	9,372,324	9,493,061
Total Calculated Scope 1, 2 & 3 Emissions ⁷	Metric Tons CO2Eq	17,834,343	14,390,939	12,711,937	13,061,161	15,150,928	14,696,811	14,329,393
GHG Emissions Intensity								
Total Scope 1 Per Million Gross Ton-Miles ⁸	Metric Tons CO2Eq/MGTM	12.2	11.9	11.5	11.3	11.0	10.9	11.0
Total Scope 1 Per Million Revenue Ton-Miles ⁹	Metric Tons CO2Eq/RTM	23.9	23.8	23.1	22.5	22.0	22.2	22.7
Total Scope 1 Per Million Revenue Dollars ¹⁰	Metric Tons CO2Eq/\$ Million	496	464	455	424	373	380	383

Data	Unit	2018	2019	2020	2021	2022	2023	2024
Total Scope 1 & 2 Per Million Gross Ton-Miles ⁸	Metric Tons CO2Eq/MGTM	12.5	12.2	11.8	11.6	11.2	11.2	11.2
Total Scope 1 & 2 Per Million Revenue Ton-Miles ⁹	Metric Tons CO2Eq/RTM	24.5	24.4	23.7	23.0	22.5	22.7	23.2
Total Scope 1 & 2 Per Million Revenue Dollars ¹⁰	Metric Tons CO2Eq/\$ Million	508	477	468	434	380	389	391
Total Scope 1, 2 & 3 Per Million Gross Ton-Miles ⁸	Metric Tons CO2Eq/MGTM	19.2	17.0	16.5	16.0	18.0	17.5	16.9
Total Scope 1, 2 & 3 Per Million Revenue Ton-Miles ⁹	Metric Tons CO2Eq/RTM	37.6	34.0	33.0	31.8	36.0	35.6	35.0
Total Scope 1, 2 & 3 Per Million Revenue Dollars ¹⁰	Metric Tons CO2Eq/\$ Million	781	663	651	599	609	609	591
GHG Reduction Targets								
Scope 1 and 2 Cumulative Absolute GHG Reduction ¹¹	% Reduction from 2018 SBTi Baseline					18.5	19.1	18.1
Scope 1 and 2 Science-Based Target Progress ¹¹	% of Progress Towards Target					36.7	38.0	35.9
Scope 3 Science-Based Target Scope Absolute GHG Reduction (Scope 3 Categories 1, 2, and 3) ¹²	% Reduction from 2018 SBTi Baseline					11.4	12.1	19.5
Scope 3 Science-Based Target Progress: Scope 3 Categories 1, 2, and 3 ¹²	% of Progress Towards Target					22.7	24.1	38.7
Biofuels Utilization	% of Total Fuel Used	1.2	1.4	2.2	3.0	4.5	6.1	5.2
Estimated Non-GHG Locomotive Air Emissions								
NOx ¹³	Tons					124,823	125,997	127,874
SOx ¹³	Tons					48	48	48
Particulate Matter ¹³	Tons					3,060	3,035	3,110
Fuel & Energy Consumption								
Total Energy Usage ¹⁴	Million Megawatt Hours	45.3	40.4	36.4	37.4	37.4	37.8	38.2
Non-Renewable Energy Consumption	Million Megawatt Hours	45	40.1	35.9	36.8	36.4	36.4	36.8
Renewable Energy Consumption	Million Megawatt Hours	0.3	0.3	0.5	0.7	1.0	1.4	1.4
Waste ¹⁵								
Total Waste Generated ¹⁶	Tons		1,433,274	2,107,803	1,044,578	1,085,363	1,388,763	1,201,690
Hazardous Waste Generated	Tons		4,120	8,553	2,173	8,682	7,207	1,118
Non-Hazardous Waste Generated	Tons		1,429,154	2,099,250	1,042,405	1,076,681	1,381,556	1,200,572
Total Waste Diverted	Tons		977,152	988,932	576,226	663,220	938,610	929,370
Total Hazardous Waste Diverted	Tons		0	0	0	0	0	0
Hazardous Waste Diverted: Preparation for Reuse	Tons		0	0	0	0	0	0
Hazardous Waste Diverted: Recycled	Tons		0	0	0	0	0	0
Hazardous Waste Diverted: Recovery for Energy	Tons		0	0	0	0	0	0

Data	Unit	2018	2019	2020	2021	2022	2023	2024
Total Non-Hazardous Waste Diverted	Tons		977,152	988,932	576,226	663,220	938,610	929,370
Non-Hazardous Waste Diverted: Preparation for Reuse	Tons		30,968	91,998	0	44,316	106,953	72,566
Non-Hazardous Waste Diverted: Recycled	Tons		665,815	592,942	287,648	304,250	526,659	615,914
Non-Hazardous Waste Diverted: Recovery for Energy	Tons		45,104	37,710	46,192	37,024	53,238	44,428
Non-Hazardous Waste Diverted: Directed for Disposal - Incineration	Tons		235,265	266,282	242,386	277,630	251,760	196,462
Total Waste Disposed	Tons		456,122	1,118,871	468,352	422,143	450,153	272,320
Hazardous Waste Disposed	Tons		4,120	8,553	2,173	8,682	7,207	1,118
Hazardous Waste Disposed: Incinerated	Tons		0	42	0	25	82	9
Hazardous Waste Disposed: Landfilled	Tons		4,120	8,511	2,173	8,657	7,125	1,109
Non-Hazardous Waste Disposed	Tons		452,002	1,110,318	466,179	413,461	442,946	271,202
Non-Hazardous Waste Disposed: Incinerated (Without Energy Recovery)	Tons		0	0	0	0	0	0
Non-Hazardous Waste Disposed: Landfilled	Tons		452,002	1,110,318	466,179	413,461	442,946	271,202
Water								
Water Consumption Total ¹⁷	Million cubic meters						0.24	0.41
Water Discharge Total ¹⁸	Million cubic meters						2.56	2.15
Biodiversity								
Biodiversity Total Evaluation Count	#		289	238	306	252	233	197
Environmental and Biodiversity Impact Evaluations - Bridge	#		238	184	249	227	187	173
Environmental and Biodiversity Impact Evaluations - Capacity	#		44	47	49	12	38	11
Environmental and Biodiversity Impact Evaluations - Commercial Facility	#		7	7	8	13	8	13
Environmental Management								
Amount of Environmental Fines / Penalties ¹⁹	US \$		146,608	0	23,100	0	0	0
Environmental Liability Accrued at Year End ²⁰	US \$		567,973	400,000	0	6,750	0	525,000

See next page for footnotes

- 1

Restatement/Verification: Union Pacific works with independent organizations to develop an accurate estimate of its annual greenhouse gas (GHG) emissions and continually evaluates its GHG and energy data to produce a calculation of its environmental footprint. In this report, some emissions data have been restated from previous years to reflect changes in reporting. As part of our SBTi target revalidation work, data and calculation methodologies for each Scope category in 2018 were reexamined to revalidate our target baseline year. See footnotes for certain Scope 3 categories where methodologies changed for 2024 vs prior year reporting.
- 2

Total Scope 1 emissions exclude the CO2e portion of Scope 1 emissions derived from the combustion of biogenic fuels, including biodiesel and renewable diesel fuels. This Scope 1 report, beginning in 2024, includes the GHG contribution of MHX, a transload subsidiary acquired by Union Pacific in February 2023. MHX's Scope 1 GHG emissions for all of calendar year 2023 were estimated to be 6,385 mtons CO2e.
- 3

Methodology changes for 2024 data: While Scope 2 consumption increased 1% from 2023, EGRiD emission factor reductions in key markets drove an overall Scope 2 emission decrease of 4% from 2023 to 2024. This Scope 2 number, beginning in 2024, includes the GHG contribution of MHX, a transload subsidiary acquired by Union Pacific in February 2023.
- 4

Methodology changes for 2024 data: We reevaluated assignment of spend categories for Scope 3 categories 1, 2, and 4 and mapped them to the most up-to-date publication of EEIO's factors, version 1.3., replacing version 1.1 which was previously utilized. We also updated our GHG mapping of operating expenses categories vs capital expenditures, which shifted some spend-based GHG estimates from Scope 3, category 2 to Scope 3, category 1.
- 5

Methodology changes for 2024 data: We reevaluated assignment of spend categories for Scope 3 categories 1, 2, and 4 and mapped them to the most up-to-date publication of EEIO's factors, version 1.3., replacing version 1.1 which was previously utilized. We also determined that operating leases for locomotives, railcars, and intermodal equipment are not applicable to this category and they were removed for 2024 GHG reporting.
- 6

Methodology changes for 2024 data: We reevaluated assignment of spend categories for Scope 3 categories 1, 2, and 4 and mapped them to the most up-to-date publication of EEIO's factors, version 1.3., replacing version 1.1 which was previously utilized. Beginning with 2024 GHG reporting, we exclude the following from this category: 1) fuel delivery GHGs, as they are already accounted for in category 3, and 2) GHGs generated by Union Pacific Railroad's freight rail movements, associated with our Loup subsidiary's Upstream Transportation and Distribution rail services, as they are already accounted for in our Scope 1 reporting.
- 7

Sum utilizes location-based Scope 2 GHG emissions.
- 8

Gross ton-miles are calculated by multiplying the weight of loaded and empty freight cars by the number of miles hauled.
- 9

Revenue ton-miles are calculated by multiplying the weight of freight by the number of miles. This number excludes the weight of locomotives and non-revenue freight.
- 10

Revenue dollars consists of freight revenues, other subsidiary revenues, accessorial revenues earned we earn when customers retain equipment owned or controlled by us or when we perform additional services such as switching or storage, and miscellaneous contract revenue.
- 11

Union Pacific has committed to reduce absolute Scope 1 and 2 GHG emissions by 50.4% by 2030 from a 2018 base year. This target is approved by the Science Based Target Initiative (SBTi) and is based on SBTi's revised minimum ambition guidance of a below 1.5°C global warming scenario. This current target was updated in early 2024 from our previous 2021 commitment to reduce our Scope 1 and 2 emissions on an absolute basis by 26% from our 2018 baseline by 2030.
- 12

Union Pacific has committed to reduce Scope 3 absolute emissions from our purchased goods and services, capital goods and fuel- and energy-related activities 50.4% by 2030 from a 2018 base year. This target is approved by the Science Based Target Initiative (SBTi) and is based on SBTi's revised minimum ambition guidance of a below 1.5°C global warming scenario. This current target was updated in early 2024 from our previous 2021 commitment to reduce our Scope 3 to locomotive well-to-wheel emissions by 26% vs a 2018 baseline. As part of our SBTi target revalidation work, data and calculation methodologies for each Scope category in 2018 were reexamined to revalidate our target baseline year, and 2022 and 2023 calculation methodologies are consistent with our 2018 baseline methodologies.
- 13

Reported statistic is based on an estimate of average tier for locomotive fleet, locomotive fuel consumption, and EPA emission factors.
- 14

Total usage calculation includes consumed electricity and all carbon-based fuels (diesel, propane, etc.)
- 15

Certain waste-related values may exhibit minor discrepancies due to rounding adjustments.
- 16

Total weight of waste generated includes data tracked by Union Pacific for used rail ties, scrap metal, and impacted soil. Day-to-day office and yard waste quantities are provided by our third-party waste disposal contractors on an annual basis. Where data was not available, estimates were made based on industry standards. Definitions of hazardous and non-hazardous waste are based on state and federal regulations, which we assess on a case-by-case basis depending on the condition of the waste.
- 17

Union Pacific procures the vast majority of its water supplies from municipal/local water authorities and uses a software application to track monthly water withdrawals associated with approximately 1,400 municipal water accounts across the company's network. This system tracks 100% of the company's municipally-sourced water withdrawals. In select locations (representing a small fraction of the company's total water withdrawals), the company extracts water from railroad-owned groundwater wells or surface water sources. These locations are managed at the local level in accordance with federal, state and/or local regulatory requirements that pertain to small public water systems or independent water wells. The majority of these locations are not metered. Consequently, the volumes are not tracked.
- 18

The company utilizes a software application to track monthly sewer discharge volumes where meters are present. The company also owns and operates 85 waste water treatment facilities across its network. Water discharge volumes are monitored using electronic flow meters or estimated based on pump hour meter run times. Discharge data and regulatory reporting are generated monthly and managed in accordance with applicable federal, state and local regulatory requirements.
- 19

Only those fines or penalties amounting to over \$10,000 have been included. The values refer to the year in which the incident occurred, not when the fine or penalty was paid. In some instances, past year values may change in following years. Those changes are not reflected in this data.
- 20

This number reflects fines or penalties not paid yet, including expected fines for cases that are not yet closed. In some instances, past year values may change. Those changes are not reflected in this data.

Cautionary Information

Our 2024 Building America Sustainability Metrics report provides additional explanatory information regarding Union Pacific that may not be available, included or directly derived from information in the company’s Annual Report. Information included in this document, and any issues identified as important for the purposes of this document, may not be considered material for SEC reporting purposes. Materiality and/or the term “material” in the context of this document is distinct from and should not be confused with, such terms as defined for SEC reporting purposes. This report includes statements and information regarding future expectations, outcomes or results of the company that are not historical facts. These statements and information are forward looking as defined by federal securities laws. Forward looking statements and information can be identified by use of forward-looking terminology (and derivations thereof), such as “believes,” “expects,” “may,” “should,” “will,” “would,” “intends,” “plans,” “estimates,” “anticipates,” “strives,” “seeks,” “aspires,” “endeavors,” “target,” “projects” and other words or phrases of similar intent. Forward-looking statements and information generally include the following: the company’s expectations, goals, forecasts, targets, and aspirations with respect to sustainability and corporate responsibility matters, including related risks and opportunities; demand for the company’s rail service; enhancing profitability; volume and revenue growth; efficiency improvements and increasing returns; the effectiveness or growth of new and newer services; management of network volumes; increasing shareholder value; total amount of capital investments; returns on capital investments; improvements regarding the sustainability, emissions, and safety of our operations and equipment; preserving the environment and communities where the company operates; and effectiveness of plans, programs and initiatives related to our workforce. Forward-looking statements and information should not be read as a guarantee of future performance or results and will not necessarily be accurate indications of the times that, or by which, such performance, targets, goals, or results will be

achieved. Forward-looking statements and information are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the statements. Forward-looking statements and information reflect the good faith consideration by management of currently available information and may be based on underlying assumptions believed to be reasonable under the circumstances. However, such information and assumptions (and, therefore, such forward-looking statements and information) are or may be subject to variables or unknown or unforeseeable events or circumstances over which management has little or no influence or control and may be derived from internal controls and processes that continue to evolve and standards are measuring progress that are still developing. Factors that could cause results or outcomes to differ, including the risk factors in Item 1A of the company’s Annual Form 10-K, filed Feb. 7, 2025, also could affect our future results and could cause those results or other outcomes to differ materially from those expressed or implied in the forward-looking statements and information. This report should be read in consideration of these risk factors. To the extent circumstances require or the company deems it otherwise necessary, the company will update or amend these risk factors in subsequent Annual Reports, periodic reports on Form 10-Q or current reports on Form 8-K. Forward-looking statements speak only as of the date the statement was made. We assume no obligation to update forward-looking information to reflect actual results, changes in assumptions or changes in other factors affecting forward-looking information, regardless of any past practice of doing so. If we update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect thereto or with respect to other forward-looking statements. Website references and/or hyperlinks have been provided for convenience only, and the contents therein are not incorporated into, nor do they constitute a part of, this document.

