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June 23, 2022

Via Electronic Filing

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The Honorable Martin Oberman, Chairman
The Honorable Michelle Schultz, Vice Chairman
The Honorable Patrick Fuchs
The Honorable Robert Primus
The Honorable Karen Hedlund
Surface Transportation Board
395 E Street, SW
Washington, DC 20423-0001

ENTERED
Office of Proceedings
June 23, 2022
Part of
Public Record

Re: **Docket No. EP 770(1)** — *Urgent Issues in Freight Rail Service—Railroad Reporting*

Dear Chairman Oberman, Vice Chairman Schultz, Board Members Fuchs, Primus, and Hedlund:

Union Pacific respectfully submits the enclosed Revised Service Recovery Plan in response to the Surface Transportation Board's June 13th order. This Revised Plan replaces the Amended Service Recovery Plan Union Pacific submitted on June 3rd.

Please contact me if you have any questions.

Sincerely,

Craig V. Richardson

Enclosure

cc: Ms. Cynthia T. Brown, Chief,
Section of Administration, Office of Proceedings

Surface Transportation Board

Docket No. EP 770 (Sub-No. 1)

Urgent Issues in Freight Rail Service—Railroad Reporting

Union Pacific Railroad Company

Revised Service Recovery Plan

June 23, 2022

Union Pacific EP770(1) Revised Service Recovery Plan

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I. Overview—Executive Summary

A. Context

The Surface Transportation Board (“STB” or “Board”) directed Union Pacific to file a revised service recovery plan to describe the actions the railroad is taking to improve service and the metrics by which it will measure improvement.

Union Pacific agrees with the STB that rail network reliability is essential to the nation’s economy, and we appreciate the opportunity to provide this Revised Service Recovery Plan. We know that the Board and our customers expect and deserve a fluid, reliable network. Union Pacific respectfully acknowledges the Board’s statutory oversight responsibilities and has worked to ensure this revised plan more clearly complies with the STB’s stated concerns.

B. Background

Union Pacific is committed to supporting our customers and doing our part to return fluidity to the supply-chain network. Union Pacific has taken several steps to address congestion and keep pace with this year’s market demands, such as accelerating hiring and training new employees; adding additional locomotives to the fleet; and removing Union Pacific-controlled cars to ease network congestion.

These efforts are beginning to demonstrate progress. Since mid-April, several Union Pacific operating metrics have improved. Freight car velocity improved from 177 car miles per day to 197 car miles per day, and our Operating Inventory decreased from over 200,000 cars to around 184,000.

Our improvement over the past two months was temporarily interrupted this past Father’s Day and Juneteenth weekend (June 18-20) as we experienced elevated TE&Y layoffs, which resulted in additional trains being held. These layoffs were layered on top of a significant derailment on our Kansas sub between Topeka and Kansas City, KS, and suspension of our operations for a period of time across a portion of the Shafter and Lynndyl subs in Utah as a result of a wildfire. Car Velocity has slowed, which increases freight car inventory. Train velocity has slowed, which consumes locomotive capability within the existing fleet. The impact of these events will be reflected in the metrics for the 7-days ending June 24th (to be filed on June 29th). We also continue to hire and train new crew members to strengthen our network.

Union Pacific faced unanticipated hiring challenges that were exacerbated by the global pandemic and competitive labor market resulting in staff shortages. In 2020, traffic volumes dropped to levels never realized in Union Pacific’s recorded history, and thus, the railroad reduced employment levels. As COVID-related shutdowns significantly reduced the demand for rail transportation, employees were placed in a furlough status. Later, as volumes started to return, Union Pacific recalled those employees. Since January 2021, Union Pacific has experienced about a 50% return rate for employees who were recalled from furlough, but that has not been enough. These hiring challenges resulted in staff shortages. Those staff shortages were

unequally distributed throughout our Northern Region with varying degrees of impact. Significantly, our staff shortages manifested in locations with extremely low unemployment.

The staff shortages have caused trains to be held for crews and contributed to congesting the network by impacting our ability to maintain our transit schedules. An inability to maintain schedules leads to the consumption of locomotive resources, as locomotives sit longer than intended and ultimately are not in the proper locations for their next outbound assignments. Furthermore, when you have fewer crews than desired, it is more difficult to recover from unplanned variability events, as extra crews are typically required to operate trains to destination after they have been delayed. When trains are unable to maintain transit schedules, volume accumulates in terminals and on the line-of-road, further congesting our yards and mainlines.

We remain optimistic about our continued efforts to achieve greater fluidity by addressing congestion and by recruiting and training more crews. As we continue our robust hiring plan through the year, we have more than 500 new train crew members in training, and nearly 300 have already graduated. (*STBR 22*)

C. Approach

Union Pacific approached this Revised Recovery Plan with a spirit of deliberate transparency. We thoroughly describe the actions we are taking to improve service, enhance the customer experience, and mitigate network congestion.

You will find references (e.g., STBR 3 – STB Request #3) throughout the Revised Service Plan. These references correspond to a table on pages 25-26 where we have cataloged the Board’s information requests and provided the location in the document where the response can be found.

One resounding theme is abundantly present throughout this plan: Union Pacific respects the authority of the Board and is engaging with its workforce, customers, and key supply chain stakeholders to improve its performance and alleviate network congestion.

The plan is divided into three main sections:

- 1. Workforce Initiatives—Union Pacific is making significant strides recruiting, training, developing, and retaining a strong workforce.** This section focuses explicitly on the efforts we have undertaken to remedy near-term labor shortages and to create long-term workforce solutions. It includes a detailed description of our hiring assessment practices, recruiting, training, retention, and attrition strategies.
- 2. Customer Experience Improvements—Union Pacific realizes our customers deserve a better experience.** This section includes details on enhancing the customer experience, including communicating delays in a timely manner, responding to customer needs, and leveraging technology to increase transparency and provide a more seamless experience.
- 3. Network Optimization—The past several months have been extremely difficult for Union Pacific and the customers we serve.** This section discusses the changes that we

have made to our operations and describes our Key Performance Indicators. This section also addresses our locomotive and customer service initiatives.

II. Workforce Sustainability

The Union Pacific workforce is essential to the implementation and execution of any plan. This plan synchronizes and adapts the recruitment, hiring, and retention of our workforce through initiatives that enhance current and future employees' work experience. Union Pacific is highly focused on building the strength of its workforce by cultivating a strong culture that nourishes top talent, encourages creativity, and recognizes employees.

Union Pacific's approach to workforce sustainability includes the following elements: (1) assessing the need, (2) recruiting, (3) hiring, (4) training, and (5) retaining. Though these components may appear linear, they entail an ongoing feedback-driven approach and continuous evaluation of needs and objectives.

A. Assessing the Need

Union Pacific must maintain sufficient levels of a professional and qualified workforce to meet changing demand. Additionally, we must have the flexibility to redeploy professionals to areas in need of additional TE&Y resources relative to demand. The ability to recall surge TE&Y workforce within a few days to respond to episodic variability events enhances our ability to recover in a timely manner. Therefore, based on a variety of factors including carload variability, attrition, carload projections, and train sizes, Union Pacific uses forecasting techniques and input from our customers to project volumes. (*STBR 12*)

Union Pacific generally establishes six- and 12-month goals for hiring in various categories of the workforce, including Transportation, Engineering, Mechanical, Crew Management, and customer service representatives. These goals are regularly adjusted as a variety of market factors change.

- **Train, Engine, and Yard Employees:** Union Pacific intends to hire 1,400 new TE&Y employees in 2022. When natural attrition is factored in, Union Pacific anticipates a net increase of 400 new TE&Y employees year-over-year. Additionally, we currently anticipate a need to hire 500-800 new TE&Y employees in the first two quarters of 2023.
- **Engineering Employees:** Current demand for Engineering new hires is projected at 550-600 personnel in 2022. This number is primarily driven by our 2022 attrition forecast and capital plan. New hiring needs associated with the capital plan are impacted by a number of items, including capital budget funding, type of projects, location of projects, etc. The total Engineering agreement workforce is anticipated to remain flat this year. Year-to-date, Engineering hired 255 new agreement employees. Each month the numbers increased, with 80 new hires in May. Within the next three months, Union Pacific will continue to hire between 75 and 80 people per month. Hiring will remain fluid to account for attrition, growth, and demand.

- Mechanical Employees: Mechanical is hiring 510 agreement employees in 2022 and another 310 in 2023. Within six months, the Mechanical workforce is projected to contain 3,850 employees. Based on potential gains and losses, Union Pacific anticipates maintaining 4,200 Mechanical agreement employees over the next 12 months.
- Crew Management Service Employees (CMS): Union Pacific has 126 CMS personnel today and expects to hire an additional 15 by August 2022, reaching approximately 140 personnel to support our customers’ growing needs.
- Customer Care and Support Employees: CC&S has a hiring plan of 15 for 2022 to backfill for attrition, maintaining our team of 204. CC&S recently onboarded and graduated seven new hires from training, which raised our workforce from 189 to 196 employees. We also hired another class of eight employees whom will begin training in late June and graduate in mid-August. This will bring our CC&S team size to 204 employees, resulting in an increase of 8% vs March 2022. Our CC&S team remains focused on offering a quality customer experience and enhancing our industry-leading suite of customer service tools through ongoing technological innovations. The customer experience section of this revised plan further describes our customer service technology advancements.

	2022 Hiring Plan	Projected 6 Month Workforce Levels (FTEs)	Projected 1 Year Workforce Levels (FTEs)
TE&Y	1,400	11,300	11,400
Engineering	550	9,000	9,000
Mechanical	510	3,850	4,200
Crew Management Service	15	140	140
Customer Care & Support	15	204	204

(STBR 11, 13, 14, 21)

B. Recruitment

We have been very aggressive with recruitment in response to changing market conditions, which require Union Pacific to vary our recruitment pipelines to find and onboard new hires faster. To address these hiring needs, Union Pacific takes a variety of approaches pursuing both external and internal personnel. For external recruitment, Union Pacific posts job opportunities with workforce offices, on paid job posting websites including LinkedIn, Indeed, Professional Diversity Network and Zip Recruiter, and pays for advertising on social media, in targeted local newspapers, and at local events. Specifically, Union Pacific focused significant recruiting resources in locations on the network where there were shortages, including North Platte, Boone, Wyoming, Twin Cities, and the Pacific Northwest.

Additionally, Union Pacific focuses on building new relationships and partnerships with the community. Partnerships with military bases and veteran organizations continue to be critical to

our candidate pipeline. In October 2021, Union Pacific began outreach with a high school program, Jobs for America's Graduates (JAG). The JAG program provides a comprehensive set of services designed to keep individuals in school through graduation and connect them with employers and post-secondary education opportunities. Starting in late 2021, Union Pacific partnered with Second Chance. Through this partnership, Union Pacific gives employment consideration to formerly incarcerated individuals, those in recovery, or those whose life path choices placed them in a disadvantaged place in obtaining stable employment. Key locations for the Second Chance hiring efforts include the major metro hubs of Houston, Los Angeles, and Chicago. (*STBR 12*)

In addition to reaching out to external pools, Union Pacific also reached out to 5,700 former TE&Y Union Pacific employees who voluntarily retired or resigned within the previous five years.

C. Hiring

Hiring the "right" person for the job is critical. Although Union Pacific's pay and benefits are extremely competitive, due to the tight labor market Union Pacific developed four specific hiring incentive programs and has paid \$570,000 in incentives to date through these programs:

- Train, Engine & Yard ("TE&Y") Travel Allowance encourages new hires to accept employment at a jobsite that is greater than 300 miles from their home of record. This incentive is available currently in hard-to-fill locations including (Boone, IA, South Morrill, NE, North Platte, NE, St. Paul, MN, Hinkle, OR, and Bill, WY). The amount of the incentive ranges from \$2,500 to \$10,000 and is payable in five installments over the course of a year.
- Mechanical Travel Allowance targets unfilled Mechanical positions across the network. This incentive pays \$5,000 in one installment.
- New Hire Bonus for employees within 300 miles of Hinkle, OR, and St. Paul, MN, to increase our competitiveness in these difficult markets. This program provides a \$15,000 bonus paid in two installments.
- Employee Referral Program is a \$500 cash bonus for employees who successfully refer an external candidate to a role within the company. As of June 17 YTD, a total of 7,800 employee referrals have been received with \$223,500 paid. (*STBR 15*)

To improve the candidate pipeline and onboard employees faster, Union Pacific has made several updates to its pre-employment processes:

- For all cognitive and physical tests, the retest policy was updated from six months to sixty days, giving candidates a second chance earlier and keeping them engaged.
- Union Pacific implemented pre-recorded video interviewing, allowing candidates to interview 24 hours a day, seven days a week. This helps candidates schedule interviews

without missing time from their current jobs and enables the talent acquisition team to continuously review candidates.

- Lastly, the talent acquisition team has grown by 30% to support the increased hiring demand.

As a result of these efforts, Union Pacific has realized a 46% reduction in time needed to move from application to released-to-start. (Q42021 vs. Q12022). (*STBR 15*)

D. Training

We recognize that crews are our most constrained resource. Union Pacific has hired an additional 10 instructors and upskilled 15 contractors to become instructors to meet the hiring demand. Additionally, Union Pacific offered peer trainer support in all training locations. Post-training, Union Pacific surveys new hires for insights and perspectives and implements suggestions to enhance the employee and customer experience.

E. Retention

To retain its employees, Union Pacific offers a world-class comprehensive benefits package and continuously evaluates additional benefits it can offer to all employees, subject to collective bargaining obligations. The Union Pacific approach to retention addresses the total employee and all aspects of both their professional and personal life. (*STBR 15*)

- **Quality-of-Life Initiatives:** Union Pacific has worked and continues to work with the Unions to discuss different schedules and work-rest pilots at various locations. We will continue to discuss and work on different ideas that help address quality-of-life needs.
- **Union Pacific is working with its Unions to expand Auxiliary Work and Training Status (“AWTS”) agreements:** AWTS allows Union Pacific to manage a downturn in network demand and need for less personnel, thereby placing an employee in a modified work schedule board rather than furloughing. This modified board status reduces the employee’s full-time status work requirements while allowing the employee to retain full employment status and benefits with Union Pacific. Training and working in this modified board status also shortens the time in which an employee can return to full-time status compared to the time required to recall employees from furlough.
- **Union Pacific is actively negotiating with our unions to have greater flexibility in the assignment and deployment of resources that are currently in the cab of the locomotive:** For example, UP is proposing to redeploy conductors from the cab of the locomotive to ground-based positions. If we can reach an agreement, these ground-based positions are expected to be regular assignments with predictable schedules. This type of scheduling will significantly enhance employee quality of life by generally eliminating the need for many conductors in through-freight service to overnight away from home. Improving the quality-of-life of these positions will help attract and retain talent in our industry. Implementing this will require new collective bargaining agreements.

- **Health & Welfare Benefits:** Union Pacific’s agreement employee Health & Welfare benefits (provided by the railroad industry’s multi-employer plan sponsored by the NRLC) are consistently favorable compared to benchmarking of mainstream benefit plans. The medical benefits available to Union Pacific agreement employees serve as a compelling attraction and retention tool and feature choices of plans with low member cost sharing (deductibles, copays, coinsurance, and out-of-pocket maximums), which are among the best available compared to common benchmarks.
- **Employee Stock Purchase Plan:** Union Pacific established a new Employee Stock Purchase Plan (ESPP) in mid-2021, allowing all employees to become owners by buying shares of UP stock (UNP) through payroll deductions. Each month, ESPP participants receive a 40% company match of up to 5% of their base compensation. In other words, participants will receive a Company match of 40 cents for each dollar they contribute, up to the first 5% of their compensation each pay period. In less than one year since inception, 29% of our employees are participating in this benefit (including almost 6,500 agreement employees).
- **Educational Assistance Partnership:** In mid-2020, Union Pacific established an innovative Educational Assistance preferred partnership with the University of Nebraska at Omaha (UNO) to attract and retain employees. This enhanced our existing educational assistance reimbursement program, providing all employees taking online or in-person courses through UNO: 1) a dedicated enrollment concierge team, 2) no limit on annual credit hours or dollars, 3) removal of typical UNO enrollment related fees, and 4) pre-paid tuition so employees do not have to wait to be reimbursed. This successful new program generated an employee enrollment increase at UNO of 900%. It is used by both agreement (~30%) and nonagreement (~70%) employees, with close to half of participants from locations other than Omaha. This benefit is in the process of being expanded to offer associate degrees through the same pre-paid model, which is expected to increase the level of agreement employee participation.

III. Customer Experience Improvement

At Union Pacific, customer centricity is a key component of our corporate strategy to Serve – Grow – Win – Together. Enhancing the customer experience means we must listen to customers’ needs and understand them, helping them solve their supply chain challenges while improving our service. At the end of the day, customers want responsiveness and resolution. We know our customers rely on Union Pacific to provide safe, reliable supply chain solutions, and we are addressing their concerns by deploying resources in three key areas: Investing in Tech Solutions; Providing Real-Time Customer Support; and Continuously Engaging Customers. (*STBR 16, 23*)

A. Investing in Tech Solutions

Union Pacific continues to invest with growth in mind, including \$3.3 billion in capital in 2022 – our largest investment in five years and a 10% increase over 2021. Of that, \$300 million is being invested in technology. Our goal is to make it easier to do business with Union Pacific,

synthesizing the complex work structure into online tools that customers can use to streamline their own workflows and maintain shipment visibility.

- **Shipment Management:** Our Shipment Management tool at MyUPRR.com is a centralized repository where customers can see real-time equipment information, viewing multiple facilities on a single screen along with succinct location summaries. This provides customers the ability to release cars, address dwelling cars in the serving yard, and plan their daily operations based on the inbound delivery schedule. Based on customer feedback, the railroad continues to update tools like Shipment Management. Soon, we will provide inventory data and an enhanced view of historical transit time information from each shipper to the destination facility.
- **Shipping Notifications:** As part of our Subscription Center, Union Pacific currently offers customers approximately 30 proactive shipping notifications, such as industry rail service, service delays, updates on shipments, railroad maintenance, storage charges, and waybills. Just this month, we launched a Track Maintenance notification, notifying customers when track work is scheduled within their facility's serving area.
- **Supply Chain Visibility:** For customers who seek integration, Union Pacific's Application Programming Interface (API) delivers a seamless digital experience, providing customers direct access to their supply chain. We continue to add new functions for API users with the upcoming rollout of ETA Update, Unit Trains, and Create Waybill planned by the end of the year. We have more than 50 customers using APIs, generating approximately 500,000 daily "calls" for Union Pacific data directly into their interface.
- **Customer Notifications:** As we focus on a holistic approach to providing proactive data our customers can use to plan their day, we have many new proactive notifications in our developmental pipeline:
 - **Shipment Management Release Cancellation Notification** alerts customers when a previously released railcar that is not made available by the customer has had the release cancelled.
 - **Enhanced Bill of Lading Notification** notifies the customer when a waybill has been cancelled (i.e., due to a billing error).
 - **Shipments Holding for Extended Duration Notification** applies to "Order-In" customers when they have not released a railcar from our serving yard for more than 10 days (variable days depending on location/service schedule).
 - **Tracking Equipment for Specific Equipment Notification** provides customers with the ability to track specific equipment to destination.

These proactive notifications are planned for deployment throughout the year and strive to give customers enhanced visibility while removing ambiguity when exceptions arise.

- **Digital Crew Devices:** Providing real-time customer information means our crews need to be equipped with the right tools. This year, we are distributing 13,000 DigiCrew devices to field employees across our network. These mobile devices allow employees to enter real-time information and reporting that send out customer notifications. These notices provide customers with timely updates regarding industry rail service, giving customers information they need and allowing for better decision-making. Union Pacific’s real-time reporting rate is 84% year to date.
- **Customer Chat:** Union Pacific is always looking for opportunities to enhance our customer relationships and interactions. In May, we provided customers with an additional channel to contact us – Chat. This new Chat feature can be used to quickly connect with an eBusiness team specialist to handle certain inquiries.

Union Pacific takes a collaborative approach to finding creative, customer-by-customer solutions to manage capacity and improve fluidity throughout the network. Through engagement with our customers, we are quickly identifying where there are pressure points in the network. We can also better understand their processes, needs, plans, and challenges to provide an innovative solution.

B. Providing Real-Time Customer Support

Union Pacific knows our customers seek and deserve consistent, reliable service. To address immediate customer needs, Union Pacific has a core, external-facing customer department called Customer Care & Service (CC&S), as well as other departments supporting the customer experience at the Harriman Dispatching Center (HDC), and in Network Planning and Operations and Field Operations.

- We ensure our customers can reach Union Pacific promptly when they have an issue or need support when navigating our suite of online tools. There are multiple channels for customers to engage Customer Care and Support, from a 24/7, 365 Call Center to specific teams designed to provide specialized service depending on how their product moves on our railroad – Bulk, Manifest, Premium or even international shipments. These teams handle customer inquiries related to their shipments through our case process portal and are committed to responding within four hours to provide an update. We have an average of 20,000 case inquiries per month in 2022 with average case responsiveness at 95% of goal. (*STBR 16, 23, 25*)
- The HDC is the central nervous system of our operations where we manage locomotives, crews, and dispatch for Union Pacific’s 23-state network. With a keen focus on customer centricity, Union Pacific recently restructured HDC management to improve coordination between field employees and dispatchers. The reorganization added positions to provide direct accountability for the transportation product across each service unit and created HDC regional leadership positions to focus on any key network challenges and provide oversight on issues that could impact customer experience. (*STBR 23*)

- CC&S works in conjunction with the Marketing & Sales Department to prioritize critical-need cars and unit trains. The team is also responsible for delivering customer alerts related to service interruptions and Union Pacific’s holiday operating plans. These alerts are sent directly to customers’ email inboxes and available in the Customer section at [UP.com](https://www.up.com).

C. Continuously Engaging Customers

Understanding service problems impacting customers and then taking action to resolve those issues at a root cause level is an essential task for Union Pacific. Service problems may come to us from direct customer feedback, an aggregation of customer case data, internal data sources, or various other mechanisms. Customer Care & Support collaborates with various internal teams such as Field Operations, HDC, and Network Planning to address service challenges. The key to resolving these service issues is understanding them at a detailed level supported by data, developing counter measures, implementing a solution, and then monitoring the solution to ensure we are seeing the intended results. Communication with customers throughout the service resolution process is critical, including understanding the pain point and impact on the customers’ business, aligning on the data, reaching an understanding of the best alternative counter measure, and the implementation and measurement of the solution. (*STBR 25*)

Union Pacific has a detailed and continuous feedback process to gather information directly from our customers. These candid conversations help Union Pacific make operational improvements aimed directly at resolving customer service challenges and attracting more business to Union Pacific.

Union Pacific increased direct communication with customers, distributing weekly Service Updates and Key Performance Indicators. These communications align with STB reporting and are in addition to monthly letters from Executive Vice President of Marketing & Sales Kenny Rocker, which provide details about the status of the network.¹ (*STBR 23*)

Recognizing the need for immediate customer feedback, customers can provide their feedback via a survey after each interaction with a customer service representative. Year to date, 86% of the surveys returned have provided positive feedback. This provides both quantitative and

¹ Kenny Rocker Status of the Network Updates:

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-34.html>

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-21.html>

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-15.html>

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-8.html>

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-4.html>

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-1.html>

Service Updates to Customers:

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-33.html>

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-31.html>

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-28.html>

<https://www.up.com/customers/announcements/customernews/allcustomernews/CN2022-24.html>

qualitative data to help us better understand our customers' experiences and make necessary changes as a result of their feedback. (*STBR 23*)

One example of targeted action we have taken as a result of this feedback is enhancing the driver experience at Union Pacific's 30-plus intermodal ramps. We improved signage to make it easier for drivers to navigate and enhanced our UPGo app to include maps, tutorials, multiple languages, and paperless access. Leveraging UPGo and new technology called Fast Gate, we recently concluded a pilot at our San Antonio Intermodal Ramp allowing the driver to skip the kiosk and go directly to their parking spot, saving drivers time and getting them back on the road faster. Following positive pilot results, the technology is now being installed at ramps in Dallas and Mesquite, Texas.

Union Pacific is proud of the holistic approach we take to customer communication and enhancing the customer experience. We are confident our multi-faceted approach, combined with efforts to turbocharge our workforce and improve service, will ultimately provide customers the experience they deserve.

IV. Operations and Network Optimization

Union Pacific's operating service recovery plan addresses how we are redistributing our critical resources to reduce congestion, improve network fluidity, and more effectively serve our customers.

A. Congestion

The current congestion in the supply chain and rail networks has been a challenge that has developed over time. The congestion was caused by a variety of events, initially beginning with the 30-plus day bridge outage in Northern California between Roseville, CA, and Portland, OR, in July 2021. As a result of this outage, we rerouted trains across a broad swath of the western portion of our network. It initially took time to relocate resources to handle the volumes on the new routes and relocate resources back to their normal work location once the bridge reopened. To move crews to the new routes, they had to be recalled. It took 25 to 40 days, depending on the agreement, to recall employees from furlough and train them on the new territories over which they would operate. (*STBR 7*)

These reroutes consumed additional crews and locomotives, slowing down the railroad and increasing inventory across the network. The slowing train velocity ultimately cascaded across both the network and the different categories of trains we operate. For example, the Southeast portion of our network experienced an inventory surge early 4Q 2021, driven by an end of quarter volume increase, string of minor incidents, and crew efficiency challenges. The overall network made strides toward recovery in December 2021 and January 2022, however; as the first quarter continued, we experienced an elevated number of trains holding for a variety of variability events, including weather related issues. These events once again consumed incremental resources and resulted in additional inventory accumulating on the railroad.

Until recently, congestion continued to build as our cars per carload rate increased from 7.6 in January 2022 to 8.9 by the middle of April 2022. This congestion resulted in resources such as capacity, crews, and locomotives becoming more constrained as demand remained strong across the network, including in our Central Corridor (i.e., Chicago to Green River, Wyoming) and into Northern California and the Pacific Northwest. Union Pacific's system trains held-per-day data reported to the STB show that trains held per day increased from 79 trains holding in January (week ending 1/21) to a peak of 176 trains holding per day in April (week ending 4/22). (*STBR 7, 8*)

B. Recovery Approach

As inventory started to grow, we followed our standard process to manage congestion across the network. As part of our ongoing efforts to ensure a fluid network, Union Pacific asks customers to reduce their inventory by adjusting their pipeline when customer inventories exceed set thresholds in our serving yards. If customers do not reduce inventory, then an embargo is processed. The purpose behind the embargo is to reduce excess customer inventory that is impacting serving yard fluidity and has the potential of impacting service to the broader customer base. Union Pacific coordinates very closely with all customers to ensure they are aware of how their volumes are impacting the network. Currently, Union Pacific plans to continue to apply its embargo process in a manner consistent with our policies and past practices to help ensure network fluidity and enhance our ability to provide a reliable and consistent transportation product for all customers. Additionally, we re-evaluated our transportation plan across the network to take steps to reduce mainline congestion, leading to improvement in network fluidity. (*STBR 9, 10, 24*)

Below is a summary of the most critical actions we have implemented:

- We modified the transportation plan for the Great Lakes Service Unit to balance terminal workload because of increasing volumes. Since making the change, operating inventory on this service unit decreased by over 2,200 cars.
- We identified and relocated TE&Y personnel from other portions of the network to locations across our east/west mainline through Nebraska and Wyoming. This was necessary given the backlog of traffic that accumulated on the mainline after the SPRB mines were closed on April 23-24 because of an elongated weather event. The trains returning to the mines to be loaded had to tie down along the mainline as the trains could not operate back to the mines in a scheduled manner. At the same time, we matched train count demand with existing crew capability, efficiency rates and train performance across Iowa, Nebraska and Wyoming. By implementing this action, we were able to clear congestion that accumulated along our east/west mainline. Returning the network to a fluid state was critical as improved train velocity creates incremental locomotive capability within the existing active fleet. As a result of this initiative, Operating Inventory decreased by 2,000 cars and month-to-date our daily coal loadings out of the Southern Powder River Basin increased by 12% relative to May.

- Finally, we also took similar actions, described above, across the PNW from Idaho to Oregon and Washington. By implementing these actions, Operating Inventory decreased by over 4,000 cars and Car Velocity across the Service unit improved by 40%.

Several system metrics improved since implementation of the actions above. Below is a chart showing improvement from June MTD ending June 17th vs mid-April and May:

Metric	Mid-April	May
Car velocity	+10%	+4%
Operating inventory	-10%	-3%
Cars per carload	-1.1 pts	-0.5 pts
Train velocity	6%	2%
Terminal Dwell	-14%	-6%
Trains holding per day	-45 trains	-7 trains
Trains held for crew	-11 trains	+4 trains
Trains held for locomotive	-31 trains	-2 trains
Recrew rate	-4 percentage pts	-1 percentage pt
TPC Manifest	+11 percentage pts	+4 percentage pts
TPC Intermodal	-4 percentage pts	+1 percentage pts
TPC Bulk	+9 percentage pts	Flat

This improvement occurred as volumes increased by 3% vs May and while the count of high horsepower locomotives changed by less than 10 units.

As a result of the network being more fluid, we have stopped storing cars distributed by Union Pacific, pulled nearly 650 intermodal well cars out of storage and back into service, and are in the process of returning to service a variety of 900 cars, in total, to support customer carload demand.

While the improvement noted above is encouraging, Union Pacific realizes this is just the first step in reaching the performance levels our customers expect from us. While we are confident in our ability to improve our transportation product, the following issues may ultimately impact our results, including, but not limited to:

- **Carload Mix:** Significant differences between actual carload mix realized relative to the projected carload mix utilized to make these projections will impact the results.
- **Fluidity:** Supply chain fluidity includes the ability of the end receivers to consume inbound shipments and pull international and domestic boxes off our ramps in a timely manner. As of mid-June, because of slow cycle times on the street, international boxes are stacked on Union Pacific intermodal ramps resulting in a lack of third-party international chassis availability.
- **Manifest Franchise Health:** On average, a car in our manifest network makes approximately three train-to-train connections from origin to destination. Because of the interconnected nature of this operation and the fact that the manifest network accumulates over two-thirds of our network car miles, it is critical this operation run per the schedule. Similar to an airline on any particular day, once a network falls behind schedule, it is a challenge to return to schedule without having time to reset (i.e., overnight in the case of an airline).

- **TE&Y hiring plan:** We are confident of our ability to hire 1,400 people in 2022. However, if the dynamics of the labor market change in a manner that materially reduces our current hiring rates, this will present a headwind to the operation.
- **Fourth of July weekend TE&Y layoffs:** In the near term, our crew base will be stretched because of expected elevated layoffs around the Fourth of July weekend. This is an annual pattern and we expect it to repeat in 2022. This will likely result in additional trains being held for a short period prior to and following the holiday until we can pick up the trains that will likely be held.
- **Risk of extreme outage:** In the event of an extreme outage (i.e., hurricane, bridge fire, etc.), or an excessive number of variability events in one location or corridor, train schedules are usually delayed, creating demand for unplanned incremental resources.
- **Interchanges:** Maintaining fluid interchanges, including the timely return of locomotive power to the supplying railroad, with other railroads is important. It is important to prevent congested mainlines from connecting to the interchange or the terminals launching trains to the interchange. At a minimum, when interchanges are not fluid, capacity is consumed and additional resources are likely required as a result of this unplanned variability.

Union Pacific has established additional process improvements which are resulting in improved fluidity and will clear congestion across the network over the next six (6) months and continue into next year.

Operationally, Union Pacific focused on increasing and redistributing three critical resources: (1) crews; (2) locomotives; and (3) freight cars. These data-driven increases and redistributions will provide a more consistent and reliable service product. We anticipate our focus on crews, locomotives, and freight cars will result in continued, steady improvement over the next six months.

- **Crew Initiatives**

- **Borrow-outs:** As described in the Workforce Sustainability section above and as previously communicated in our voluntary weekly updates to the Board, we have temporarily relocated approximately 160 train, engine, and yard (“TE&Y” or “train service”) employees to provide additional crew supply for several specific hubs. This borrow-out number includes an additional 90 employees since April 26, 2022. These employees are currently in place and qualified for train service within their new operating territories. Union Pacific is also relocating 27 additional borrow outs to our Northern California hub. These borrow outs are not included in the number quoted earlier. All employees should all be in service by July 8, 2022, per existing labor agreements.

The extra borrow-out supply in other parts of the network was available due to improved crew efficiency across the network and recent graduates becoming available. As you can see in our weekly reporting, as the network has improved, our recrew rate is beginning to come down closer to historical norms. Our current month-to-date rate is one of nine months since June 2020 where our recrew rate has been below 8.5%.

- **Hiring:** Union Pacific steadily increased its train service hiring and training since the fourth quarter of 2021. Please see the Hiring section earlier in this report for specific details and hiring targets. These numbers will be reported in Union Pacific’s monthly employee data filing with the Board. Union Pacific expects that this hiring and a focus on the judicious use of crews will facilitate recovery, specifically supporting decreases in dwell time and increases in car velocity. The additions to our employee base we expect by year-end 2022 correspond to our service improvement expectations over the same period, as set out in this Revised Plan.
- **Crew Efficiency Opportunities:** In the near term, our crew base will be stretched because of expected elevated layoffs around the Fourth of July weekend. This is an annual pattern, and we expect it to likely repeat in 2022. This will likely result in additional trains being held for a short period prior to and following the holiday until we are able to pick up the trains that will likely be held. Union Pacific is diligently working to offset as much of this impact as possible by reducing unproductive recrew starts and getting crews tied up in less than 12 hours so they can get rested and ready for their next call.

Union Pacific continues to focus on matching train demand to our available crew capacity during this time. This is important to minimize having to tie down trains in our mainline sidings, which creates congestion and consumes capacity by increasing the distance and time it takes for a train to travel prior to a train in the opposite direction being able to move.

- **Locomotive Initiatives**

- **Power in Service:** Compared to December 2019, Union Pacific currently has more active high horsepower (“HHP”) available relative to the change in gross ton miles we are hauling on the network. Currently, there are 16% more HHP locomotives in service compared to December 2019, and we are hauling just 10% more gross ton miles. As noted in the Board’s June 13, 2022, Decision, train velocity was faster in 2019. This is an example showing that adding power does not necessarily result in a better transportation product.

Union Pacific added 150 locomotives to improve network fluidity. Although current locomotive supply is sufficient for our restoration efforts, Union Pacific will prepare 300 additional locomotives for a return to service in anticipation of growth expected later this year and early next year. The gradual addition of these

300 locomotives will also enhance Union Pacific's ability to respond to potential new and significant network disruptions. (*STBR 19*)

- **Locomotives and Velocity:** Locomotives are important to improve car velocity and reduce the number of trains holding for power. Additional locomotives have less impact on train velocity because trains holding for power typically have not “departed,” which is the event that starts the train velocity clock. After analyzing the network to understand the additional locomotives required to improve fluidity, Union Pacific is not immediately returning additional locomotives to service. As proven over the past weeks, reducing mainline congestion to generate additional train velocity is the quickest and most efficient way to generate incremental locomotive capability. Weekly average number of trains holding per day for locomotive power in June reduced by 15% vs May and 64% vs mid-April, as train speed increased by 2% vs May and by 6% vs mid-April.

Finally, adding a significant number of additional engines to the active fleet currently presents issues. As we return locomotives to service, some level of maintenance is generally required, potentially diverting/delaying our ability to keep the active fleet working as productively as possible.

Another path to supplement available power resources is Union Pacific's locomotive modernization and overhaul programs. These technology initiatives will improve the reliability of our locomotive fleet. Specifically, Union Pacific is modernizing older locomotives by updating the computer and engine. These modernizations double the reliability of the locomotive while increasing the productivity of the network. For newer locomotives, Union Pacific performs engine overhauls and specific component upgrades that increase reliability of the asset by approximately 40%. Both activities reduce variability on our network and improve service consistency for customers.

Though Union Pacific has more active horsepower on the network and more HHP locomotives in road service, until train congestion was reduced along our mainline, this will not translate directly into improved performance. (*STBR 5*)

- **Velocity Restrictions:** Union Pacific does not maintain any absolute train velocity restrictions other than those required for safety, examples including, but not limited to the following:
 - speed limits for track geometry,
 - key trains operating within the limits of High-Threat Urban Areas, and
 - trains which include freight cars with certain mechanical characteristics.

Union Pacific does maintain a restriction on locomotive throttle settings for certain trains when operating at more than 50 miles per hour – this should not be

construed as an absolute train velocity restriction. This throttle restriction limits only the amount of throttle – and corresponding fuel consumption – that may be utilized once train speed exceeds 50MPH. It does not limit train speed to 50MPH, as long as speeds exceeding 50MPH can be maintained within throttle usage limits.

Fuel consumption and corresponding emissions reductions resulting from throttle restrictions are significant; reductions of 1.5% or more have been measured in most cases. Incremental fuel consumption does not yield corresponding increases in train speed or network velocity. Union Pacific currently has no plans to suspend this throttle use restriction for applicable trains.

Less than 30% of UP trains are affected by throttle restrictions. Certain high-priority intermodal trains and trains that utilize Energy Management Systems (see below) are exempt from throttle restriction rules. (*STBR 4, 6, 17, 18*)

- **Energy Management Systems:** Union Pacific utilizes Energy Management Systems (EMS) on many of its locomotives to further manage fuel consumption and emissions while maintaining train velocity. EMS utilizes knowledge of train and track characteristics to effect optimal locomotive throttle and dynamic brake settings. Union Pacific calculates that the use of EMS currently results in fuel consumption and corresponding emissions reductions in excess of 3.5%.
 - Use of EMS on Union Pacific locomotives reduced diesel fuel consumption by approximately 12.2 million gallons and reduced greenhouse gas emissions by approximately 124,000 metric tons during calendar year 2021 alone; reductions in 2022 will be even greater.
 - Extensive analysis of train run-times for EMS and non-EMS trains have been conducted on several occasions. In one recent analysis, the run times of 99 non-EMS and 140 EMS trains operating over a particular crew district were measured during a contemporaneous time period. Non-EMS trains averaged 421 minutes of transit time (including time while stopped) while EMS trains averaged 431 minutes – an increase of 10 minutes or less than 2.5% versus non-EMS trains. There is currently no plan to limit or eliminate the use of EMS.
 - Union Pacific conducted an actual measurement of the impact of its fuel conservation and emissions reductions initiatives on network velocity beginning in March 2018. For a three-month period, most fuel conservation measures including, but not limited to, the use of throttle restrictions and EMS, were suspended. These actions resulted in negligible impact to overall network velocity, but did result in increased fuel consumption and emissions, corresponding to the savings figures for throttle restrictions and EMS cited above, plus that attributable to other initiatives. Union Pacific concluded and now maintains that its fuel

conservation initiatives (1) have very limited impact on current over-the-road train speeds and (2) such over-the-road train speeds have negligible impact on overall network velocity.

- **Idle Power Use in Consist:** With regards to utilizing good or working idle power within a locomotive consist, Union Pacific already authorizes idle power to be utilized if an operating unit breaks down while a train is traversing from origin to destination.

Union Pacific is confident this implemented plan, as demonstrated over the past few weeks, will decrease freight car congestion across the network and result in a more fluid network. Improved fluidity promotes faster train velocity, which cascades to incremental locomotive supply. These improvements will propel a more consistent, reliable service, which Union Pacific fully understands is key to being an integral part of the national supply chain network.

- **Freight Car Initiatives**

- **Reducing Inventory:** Union Pacific implemented plans to reduce 8% to 10% of our system-owned rail car fleet; however, as network fluidity improved, Union Pacific recently elected to pause this storage effort. Currently, 7% of our system-controlled fleet is stored. By keeping the remaining cars in storage, it will continue to reduce network congestion and create additional train velocity. This additional train velocity effectively will allow movement of more carloadings and more gross ton miles without increasing congestion. Currently, we are operating all fleets on our network with a 7.8 cars per carload rate. Inventory decreased by 10% while carloads have increased by 3%.

Simultaneously, Union Pacific is continuing to work with private car shippers that have elevated operating inventory on the network (as compared to late January 2022). Through that extensive dialogue, Union Pacific and its customers have mutually agreed to remove 1% to 3% of private railcars on the system. These car reductions will further improve car velocity and reduce cycle times for the remaining cars on the network.

Union Pacific's goal is to continue to grow carloadings over the course of the remainder of the year. As additional carloads are added to the network, this will naturally increase inventory to some extent. The amount of the increase will depend on the business mix of the incremental carloads. By executing our system-owned car storage efforts and our private car inventory initiatives across the network, Union Pacific's Operating Inventory is projected to be approximately 189,000 cars, cars per carload is projected to be 7.9, and car velocity is projected to improve to 207 mph by December 2022. (*STBR 9*)

- **Terminal Dwell:** Union Pacific modifies transportation plans around terminals when freight car dwell and/or the demand for cars to process through terminals exceeds capacity. Union Pacific implements alternative targeted terminal

transportation plans after evaluating specific terminal characteristics, including capacity and throughput rate. These terminal transportation plan alternatives are developed with three initiatives in mind (1) reduction in car dwell, (2) improvement of car velocity, and (3) crew start reductions to reduce the TE&Y resource demand. When comparing car dwell for June 2022 versus April 2022, scheduled terminal car dwell decreased by 4%, and actual terminal car dwell was reduced by 14%.

Union Pacific's terminals are currently running in a fluid manner. However, we continue to look for ways to reduce switching demand within the manifest network, which in the past has been a catalyst for congestion. This analysis requires a comprehensive overview of car flows throughout the network and continuous evaluation of the most logical and efficient routing options while considering resource and capacity constraints. One example is increased volume levels, which led to increased switching demand inside Union Pacific terminals in Minnesota, Wisconsin and Iowa. To balance the switching demand and reduce car dwell, Union Pacific modified transportation plans across the Great Lakes Service Unit to balance the terminal workload. The implementation of these transportation plans helped to improve car velocity on the Great Lakes Service Unit by 16%.²

Reduction in switching demand reduces terminal dwell time and improves car velocity. One of the key vulnerabilities for the supply chain is the handoffs between service providers during switching. This is true for handoffs between logistics providers in the overall supply chain as well as the handoffs within the rail network. To maintain fluidity of the network, the handoffs must be well timed and synchronized through significant planning and communication. The cars subjected to reciprocal switching remain in the yards, consuming more capacity, interfering with service, and diminishing our ability to build traffic density.

We do not believe that our current transportation plan serves as a headwind to our transportation performance. However, this is continuously monitored, and adjusted as necessary, as volumes and network fluidity change. At this time, the terminals with the highest terminal dwell relative to our T-Plan and their recent historical performance are Ft. Worth and Livonia. (*STBR 20*)

- **Variability Reduction:** Union Pacific continuously evaluates ways to reduce variability across its network. Removing variability from the network is critical as variability results in unanticipated demand for resources and interrupts the timing and flow of the cars attempting to move across the network. Furthermore, over the last two months, Union Pacific modified its transportation plans in accordance with modified train makeup restrictions that are aimed at reducing network variability. Since implementing these changes across our first corridor, we have seen a reduction in variability across this corridor.

² This metric is being compared from April 2022 versus June 2022.

C. Key Performance Indicators³

Union Pacific will use five key performance indicators to show whether fluidity is improving across the network: (1) Car Velocity, (2) Operating Inventory, (3) Cars per Carload, (4) First Mile-Last Mile (“FMLM”), and (5) Trip Plan Compliance (“TPC”). These KPIs and projected targets are based on an assumed business mix and historical correlations for each metric relative to operating inventory. (*STBR 1, 2, 3*)

- **Car Velocity⁴**

Car velocity provides insight into the efficiency of the freight cars currently circulating on our network by measuring the average daily miles a car moves on Union Pacific’s network. The measure includes the time from release/interchange to placement/interchange (loaded and empty). This metric has strong statistical correlation to Operating Inventory (i.e., $R^2 = 0.63$) with our recent historical performance. Reductions in terminal dwell time and improvements in train velocity will directly translate to improved car velocity. This improved car velocity, in turn, will allow for more cargo to be transported without adding additional freight car resources to the network.

Union Pacific’s goal is to achieve a **system average car velocity target of 207 miles per day** within the next 6 months performing within the range of 205 to 210 miles per day.

- **Operating Inventory⁵**

Union Pacific defines operating inventory as its active inventory minus cars placed at customers’ facilities.⁶ Stated differently, operating inventory is total inventory less cars stored, less cars placed at customers’ facilities. This number is a proxy for the cars that are currently being handled/managed. Because the railroad is a fixed infrastructure network and because of the strong historical correlation between Operating Inventory and Car Velocity, Operating Inventory was chosen as a Key Performance Indicator.

³ All of the projections below are impacted by a number of factors which will impact the eventual outcome. These factors include, but are not limited to: volume, business mix, geographic mix, extreme variability events, an excessive number of variability events in a short period of time, especially if a number of the events occur within a localized area or the same corridor, and whether we continue to hire at our current rates or better.

All projections included in this section shall be filed with the SEC by Union Pacific in a Form 8K. Reference is made to Union Pacific Form 8-K filed on June 7, 2022 in connection with the June 3, 2022 filing by Union Pacific of the Union Pacific Amended Service Recovery

Plan: https://www.sec.gov/ix?doc=/Archives/edgar/data/100885/000143774922014457/unp20220603_8k.htm

⁴ Union Pacific publicly displays its car velocity numbers at <https://www.up.com/investor/key-metrics/>.

⁵ Union Pacific shares this number publicly at <https://www.up.com/investor/key-metrics/>.

⁶ Active inventory is gross inventory minus the number of stored cars. Gross inventory is the total number of cars on the network, including stored cars and cars at customers’ facilities.

Union Pacific realized a significant surplus in operating inventory across the network. This surplus is a primary contributor to network congestion. Our operating inventory from January to April of this year increased by approximately 30,000 cars or around 17%. This rate of increase is extremely high compared to previous years where the rate of increase was about 2,000 cars in the same period.

Through implementation of the operating plan, discussed above, Union Pacific anticipates that operating inventory will decrease on the network relative to our carload demand. Our cars per carload improvement from 8.9 in April to 7.9 for the 7-days ending June 17th is a testament to this. We have been successful in reducing operating inventory on the network 10% vs our April peak and 3% vs May, while growing carloads on the network (up 3 percent vs May).

Utilizing current carload forecast and accounting for seasonal patterns for the month of December relative to our second half historical carload rate average, Union Pacific's goal is to achieve and maintain an **operating inventory target of 193,000** by the end of December 2022 performing within the range of 188,000 to 198,000.

- **Cars per Carload**

Cars per carload is the operating inventory required to generate one revenue carload and is calculated by dividing operating inventory by the average daily number of revenue carloads. When cars per carload increases, more freight cars were utilized to move the customers desired volume across the network. This metric is important to provide perspective on Operating Inventory relative to carload demand.

Union Pacific's goal is to achieve a **system average of cars per carload target of 7.9** by the end of December 2022 performing within the range of 7.7 to 8.1.

- **First Mile Last Mile**

First Mile Last Mile ("FMLM") measures whether, according to the car schedule, a manifest car was spotted or pulled on-time or early plus 8 hours. If a manifest car misses its schedule because: (1) the customer was not ready for service, or (2) the customer submitted additional spotting or pulling instructions after the customer already received service that particular day, a new schedule will be established, and the car will be measured on a subsequent day. In short, this metric measures the percent of time that the local service schedule provided to the customer was achieved and provides insight into the customer experience.

By the end of December 2022, Union Pacific's goal is to achieve a **system target for FMLM of above 91%** performing within the range above 90%.

- **TPC**

The Board requested Union Pacific provide data for TPC plus 24 hours, and the explanations below capture how Union Pacific is calculating what the Board is requesting. This metric is being provided at the request of the Board and because it is an indicator of our consistency.

- **TPC Manifest:** TPC Manifest measures the actual transit of a car from release from industry or the interchange received event until constructive or actual placement or delivered at interchange versus the original schedule provided to the customer plus 24 hours. It measures the percent of time the schedule originally provided to the customer was achieved.

Union Pacific's goal is to achieve a **system average TPC Manifest target of 70% 9** by the end of December 2022 performing within the range of 66% to 73%.

- **TPC Intermodal:** TPC Intermodal measures the actual transit for an intermodal box from its gate reservation, actual in-gate into the ramp, or the interchange received event until the box is grounded at the destination ramp or delivered at interchange relative to the agreed upon commitment provided to the customer plus 24 hours. It measures the percent of time the agreed-upon customer commitment was achieved.

Union Pacific's goal is to achieve a **system average TPC Intermodal target of 80% 9** by the end of December 2022 performing within the range of 76% and 83%.

- **TPC Bulk:** TPC Bulk measures the actual transit of cars on a Bulk train from departure from industry or the interchange received event until constructive or actual placement or delivered at interchange versus the original schedule provided to the customer plus 24 hours. It measures the percent of time the schedule provided at departure to the customer was achieved.

Union Pacific's goal is to achieve a **system average TPC Bulk target of 81% 9** by the end of December 2022 performing within the range of 77% and 85%.

V. Conclusion

An efficient rail system free from excessive congestion and delay is vital to a robust supply chain and national economy. Union Pacific must recover the system by improving the above key performance indicators and executing the service plan above. Union Pacific anticipates that our key performance indicator metrics will recover to levels achieved earlier in the year, which will enable us to move our customers' freight more reliably and consistently.

In conclusion, the Union Pacific EP770(1) Revised Service Recovery Plan is designed to grow the workforce, improve customer experience, and alleviate congestion on the network. We are confident our proactive measures will accomplish these goals and set the conditions for continued success.

STB Request References to Revised Service Recovery Plan

	STB Request	Reference to Revised Service Recovery Plan
1	Time series of KPIs for the past 36 months and a target that the carrier expects to hit at the end of the 6-month reporting period	Time series in data filing; Targets Pg. 21-23
2	Explain its selection of KPIs: 1) how defined, 2) what it indicates, 3) why it is selected	Pg. 21-23
3	Explain how it arrived at and will meet each target (ex: car velocity)	Pg. 21-23
4	Discuss any plans it has to lift current velocity restrictions	Pg. 17
5	Discuss any increased power on its through trains so that each such train has capacity to travel at track speed	Pg. 17-18
6	If there are no plans to lift velocity restrictions or increase power, carrier must explain why	Pg. 17-18
7	Cause of network congestion and delays	Pg. 12-13
8	Geographic locations where problems are most severe	Pg. 13
9	Specific and concrete actions Carriers will take to improve service	Pg. 13-21
10	How specific remedial actions UP intends to take will translate into enhanced performance of those metrics	Pg. 13
11	Workforce level intended to achieve to meet demand	Pg. 5
12	Address its plan to remedy its current labor shortage and avoid future labor shortages	Pg. 4-8
13	Number of employees UP intends to hire	Pg. 4-5
14	Provide labor force targets for employees actually on the job (separately delineate total number of number on the extra-board) in 6 months -- (broken out by transportation, MOW, Maintenance of equipment, customer service employees, and all remaining personnel)	Pg. 5
15	Plan to incentivize hiring and retention -- specifically identifying the policies and incentives UP intend to use to maintain an adequate labor supply along with an explanation how those measures will attract and maintain personnel	Pg. 6-7

	STB Request	Reference to Revised Service Recovery Plan
16	Steps to improve customer service, including provision of timely responses to customer inquiries about delays in meeting expected ETAs and hiring of additional customer service reps who are familiar with shipper needs and can resolve issues	Pg. 8-12
17	Explain seeming contradiction of whether a throttle restriction is not a train velocity restriction or that it is a restriction but required for safety	Pg. 17-18
18	Must address its velocity-metering	Pg. 17-18
19	UP must address whether the additional 300 locomotives can be expected to restore system-average train speed to 2019 levels	Pg. 16
20	Address how to reduce switching demand -- including details on what terminals would benefit from reduce switching and whether those areas are currently suffering service disruptions	Pg. 20-21
21	UP must provide labor force targets for employees actually on the job in 1 year (broken out by transportation, MOW, Maint of equip, customer service employees, and all remaining personnel)	Pg. 5
22	Describe how labor shortages are causing problems	Pg. 3
23	Must include steps it is taking to improve customer service (timely responses to customer inquiries about delays in meeting expected ETAs and hiring additional customer service representatives)	Pg. 8-11
24	Discuss recovery plans taking into account service designs	Pg. 13-21
25	UP should also include in its revised service recovery plan the steps that it is taking to improve customer service, including the provision of timely responses to customer inquiries about delays in meeting expected ETAs, as well as the hiring of any additional customer service representatives who are familiar with shipper needs and have the ability to resolve issues.	Pg. 10-11