

PROJECT DESCRIPTION

Eastern Maine Railway Freight Resiliency and Efficiency Project **Maine Department of Transportation**

U.S. Department of Transportation (DOT)
FY 2023-2024 Multimodal Project Discretionary Grant Opportunity (MPDG)
Nationally Significant Multimodal Freight and Highways Projects (INFRA)

The *Eastern Maine Railway Freight Resiliency and Efficiency Project* (“Project”) will:

1. Replace key rail infrastructure in eastern Maine making it safer and more reliable
2. Connect the state’s forest products industry to export markets
3. Support the creation of family-wage jobs in rural communities
4. Reduce transportation costs
5. Decrease truck traffic, potential crashes and CO₂ emissions on rural roadways
6. Improve Maine and U.S. competitiveness in the global marketplace

The Maine Department of Transportation (“MaineDOT”, “Agency”) is requesting \$46.5 million in Nationally Significant Multimodal Freight and Highways Projects (INFRA) grant funding to improve rail lines in eastern and central Maine along Eastern Maine Railway’s (“EMR”) mainline operating from Brownville Junction, Maine, in the central part of the state to Vanceboro, Maine and the Canadian border, continuing into Atlantic Canada and the Port of Saint John. It is the state’s only east-west rail line linking Maine and the New England Region to New Brunswick, Canada and export trade with that region. Improvements will also be made to the mainline operating north from Brownville Junction northeast to Millinocket, Maine, and the forest and farming regions of the state.

All right-of-way is owned by EMR and operated by NBM Railways (“NBM”, “Corporation”). The two routes host 42 trains each week and currently more than 110,000 annual carloads and containers carrying a variety of freight traffic including export and import shipping containers, grains, chemicals, minerals, metals, vehicles and, importantly, forest products which serve as the backbone of Maine’s economy. Traffic on the lines flow to and from the U.S. Midwest, Southeast and New England, making the Project significant for regions far outside of Maine. (Detailed map information is located in the Project Location File.)

Statement of Work

Making improvements like these are common although often take place in smaller segments and often to cover immediate repair needs. Therefore, technical and engineering components of the work are easily understood. The Project consists of removing old and worn 100lb jointed rail and replacing it with new, modern and heavier 115lb continuous welded rail¹ (“CWR”) and, where practical, welding pieces of newer 115lb jointed rail together making the entire line CWR. This will improve safety and reliability needed to support today’s heavier freight cars and longer trains. Work also includes making road crossings safer by installing new crossing signals,

¹ Federal Register detail related to CWR: <https://www.govinfo.gov/content/pkg/FR-2009-08-25/pdf/E9-20253.pdf>

strengthening the track underneath road pavement, repaving crossings and adding new road striping in those areas to improve safety and visibility for motorists approaching crossings. The Project also consists of building new support track, replacing aging and unreliable turnouts, installing new crossties and adding stone ballast. The Project's overarching goals are to improve the safety and reliability of the outdated lines. The project will increase freight throughput, allowing the lines to safely handle an estimated 33 percent increase in traffic over the next decade. The track will be able to support 286,000-pound freight cars traveling at 40 miles-per-hour – the minimum standard for rail lines today that handle the amount and types of traffic this line does, including hazardous materials.



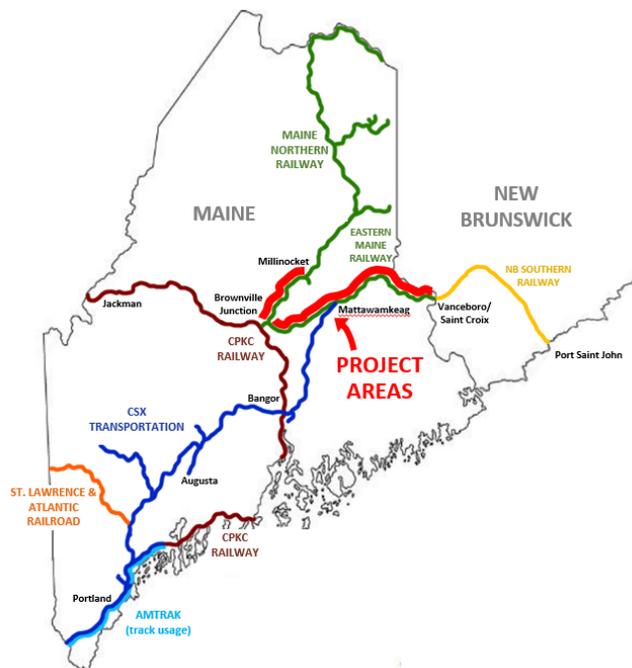
EMR track showing deterioration at a rail joint, compromising the strength of the track.

The railroad is the critical conveyor belt linking abundant wood fiber resources in Northern Maine to mills in other parts of the state and key export markets in Atlantic Canada. It also provides connections to the eastern U.S. through direct interchange with Class 1 railroad CSX at Mattawamkeag, Maine. Consumer goods are also a key driver of traffic on the line; more than 75,000 intermodal containers move annually in and out of the port on the line, destined for markets throughout the Northeast and Midwest. Container traffic alone is projected to increase by 28 percent over the next decade. The growth was a key driver in the recent Class 1 railroad acquisitions of the connecting rail lines by CPKC and the CSX acquisition of Pan Am Railways.

The Project will make the railroad much safer, support good paying jobs throughout Maine and New England, decrease the number of trucks on rural roads, reduce the potential for roadway crashes and railroad derailments and help Maine meet its aggressive but achievable CO₂ emissions goals. The Project also supports numerous USDOT goals and helps rural communities compete in today's global marketplace.

Location Highlights

The Project boundary is along the tracks of EMR's Mattawamkeag Subdivision from Milepost 5.6 at Vanceboro (ME)/Saint Croix (NB) to Milepost 104.9 at Brownville Junction (ME). It also includes the mainline from MP 72.52 near



Brownville Junction to Milepost 109 at Millinocket. Copies of the EMR timetables and track charts noting Project components by milepost, accompany the application.

The Project will commence final work needed to complement previous Federal and state infrastructure investments in the line, including a \$20 million grant awarded in 2017 under Transportation Investment Generating Economic Recovery (TIGER VII) funding for the *Maine Regional Railways Project*. The project funded improvements across three railroads to more than 380 miles of track, two train yards, numerous bridges and grade crossings throughout central and northern Maine, including modest improvements along the Eastern Maine Railway. The project was matched by \$2.6 million in state funding and \$14.4 million in private funding.

While the intended speed limit on the line is 40 mph (Class 3 designation by the Federal Railroad Administration) the current speed has been curtailed to 25 mph (Class 2) due to the outdated and deteriorating condition of track components. Project completion will allow the speed to return to 40 mph, the minimum standard classification for this type of track carrying this amount of freight, including hazardous materials. The CPKC rail line connecting to this line from the west, supported by vast Class I financial resources, has undergone significant improvements the past several years. That line now operates at efficient Class 3 track speeds but the EMR line remains a bottleneck impediment to moving traffic efficiently across the entire state.

Safety

The Project's safety benefits are extensive because they improve conditions on both the railroad and rural roadways. Rail-related benefits include safer track conditions which will reduce the potential for derailments and resulting possibility of environmental issues and inconvenience to rural residents. Railroad crossing improvements will reduce vehicle and pedestrian collisions at crossings. For rural roadways, the Project's resulting safety improvements will lead to fewer heavy trucks on regional roads and highways as freight shifts to improved rail service. That will greatly lessen the risk of traffic crashes and injuries which pose a great concern on rural roadways.

Traffic: Intermodal

The Project improves reliability of the only direct rail connection for intermodal traffic from the eastern and midwestern U.S. and eastern Canada and to the Port of Saint John, a deepwater port offering one of the fastest steamship line sailing times between North America and



Port of Saint John container terminal.

Europe. The Port, which handles more that 27 million metric tons of cargo, currently including more than 86,000 TEUs annually, is efficient, reliable and complements other northeast ports – all adding capacity as global traffic shifts from west coast ports in the U.S and Canada to eastern ports.

Traffic: Forest Products

The railroad's second-highest commodity volume is forest products. Forest feedstocks such as logs and woodchips move to lumber and paper mills and finished products like paper and lumber move to consumers. Much of the traffic flows from northern Maine for export to large paper mills in New Brunswick and significant carloads also go to a pulp and paper mill in Woodland in eastern Maine.



Woodchip traffic on the EMR.

Given its relatively isolated geographic location, natural resources, climate conditions and low population, Maine does not possess the same diverse manufacturing base enjoyed by other states and regions. Nearly 90 percent of the state is covered by forests, the highest percentage of any state in the U.S.² The forest products industry

was thriving in Maine for more than two centuries. But for the last two decades, the state has been decimated by job losses as the industry contracted for a number of reasons. “In the past 20 years both the forest product industry and the forestry and logging industry in the US have experienced numerous challenges due to the rise of electronic media, the rise of competing suppliers, and big changes in the manufacturing industry (Irland, 2017). Decreases in lumber demand, mill shutdowns...complicate business operations. Automation that took off in the 1990s decreased demand for manufacturing employment and globalization of manufacturing decreased US manufacturing output (Irland, 2017). These factors led to many plant closures and consolidations. In the state of Maine, 64% (11 out of 17) of the pulp and paper mills shut down since 2000 (Crandall et al., 2017).”³ Rail line abandonments soon followed mill closures.

Facing the downturn and unprecedented unemployment in rural areas, leaders worked hard to find ways to grow again. Today the industry is rebounding due to resourceful and targeted efforts to attract forest products businesses back and employ technological advancements in the types of wood fiber-based products manufactured. Many are environmentally sustainable and will keep the manufacturing resurgence strong. Today's forest products industry contributes \$8.5 billion and 33,500 jobs to Maine's economy. The Pine Tree State exports more than \$500 million of forest products annually.⁴ “The sector continues to undergo transition in its traditional industry base, while new technologies and opportunities are emerging leading the path for future growth in the sector...[there is] a coordinated effort to drive growth in the sector with a target of reaching \$12 billion in economic output by 2025.”⁵

EMR's railcar volume reflects the growth. Following a low of 19,000 annual forest products carloads in 2020, the carrier projects 2030 volume to more than triple to 63,000 annual carloads. This is driven by growth in inputs such as woodchips and logs to support associated demand for finished goods such as lumber and paper products. Growth is based on upcoming activity at three

² <https://www.mitc.com/business-support/industries/forest-products/>

³ https://www.researchgate.net/figure/Average-Maine-Employment-Trends-in-Wood-Related-Industries-Graph-This-graph_fig6_334362621, page 2

⁴ <https://www.mitc.com/business-support/industries/forest-products/>

⁵ https://formaine.org/wp-content/uploads/2021/07/FORMaine-Workforce-Report-Final_Revised_06.2021.pdf, page 4

key customers: 1) Irving Pulp and Paper in Saint John, Canada, 2) a proposed eco-friendly wood pellet plant in Millinocket, 3) growth at the Louisiana-Pacific wood siding facility in Houlton.⁶ But the resurgence cannot occur without investments in vital and necessary rail infrastructure. Like many commodities, forest products must be transported to the closest and most efficient port in the supply chain. That is the only way Maine forest products continue to survive and thrive in the global market – for Maine that is the Port of Saint John. Investment is needed to modernize remaining rail lines and help make the port connection following numerous abandonments in the wake of the forest products downturn. “Although Maine ranks 1st in the United States for percent of forested land and 19th for total forested land, it ranks 40th in total rail miles.”⁷ Given the amount of mileage that has been abandoned, it is critically important that the few remaining lines are upgraded to today’s standards and adequately maintained. They are necessary to sustain job growth and meet emissions targets.

Applicant Experience

MaineDOT is the applicant and is highly experienced and successful at constructing grant-funded projects expeditiously, managing financial reporting requirements and administering back-office functions. Application partner NBM Railways also has experience successfully managing Federally-funded grant projects on its rail lines. Previously received Federal funding for Maine rail projects includes:

- \$17.5 million Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant awarded in 2018 to MaineDOT to fund upgrades to the former Pan Am Railways mainline from Waterville to Royal Junction – matched by more than \$500,000 in state funding and \$17.5 million in private funding
- \$16.9 million CRISI grant awarded in 2019 to MaineDOT to fund track and bridge upgrades in central Maine between Waterville and Mattawamkeag – matched by \$25.3 million in private funding
- \$16.2-million CRISI grant awarded in 2022 to fund upgrades on MaineDOT-owned lines operated by Maine Northern Railway – matched by more than \$3 million from MaineDOT and MNR
- \$7.6 million Fostering Advancements in Shipping Transportation for the Long-Term Achievement of National Efficiency (FASTLANE) grant funding awarded in 2018 to fund upgrades of 22 railroad bridges in Maine – matched by \$8.2 million from MaineDOT and private funding
- \$20 million Transportation Investment Generating Economic Recovery (TIGER) VII grant to fund improvements to more than 384 miles of track, rail yards, bridge timbers and grade crossings throughout central and northern Maine – matched by \$2.6 million from MaineDOT and \$14.4 million in private funding

MaineDOT has administered additional Federal grant funding to aid passenger rail investment supporting Amtrak’s state-funded Downeaster service.

⁶ <https://lpcorp.com/about-lp/media-resources/news-releases/product-news/lp-building-solutions-announces-plans-for-significant-expansion-to-houlton-maine-operation>

⁷ <http://formaine.org/wp-content/uploads/2020/09/MFPC-Final-Report-Feb-2020.pdf>, Page 2, Table 1: *Comparison of Rail Infrastructure and Forested Land*