



April 10, 2018

The Honorable Richard Blumenthal
United States Senate
706 Hart Senate Office Building
Washington, D.C. 20510

Dear Senator Blumenthal:

Thank you for your March 7, 2018, letter congratulating me on my appointment as President of Metro-North Railroad (Metro-North) and requesting information regarding the progress of Positive Train Control (PTC) implementation on the Metro-North system.

The Metropolitan Transportation Authority (MTA) and both of its commuter railroads – Metro-North and the Long Island Rail Road (LIRR) – are continuing the safe, incremental and controlled roll-out of PTC by December 31, 2018. The MTA's Chief Safety Officer, David Mayer, recently testified before the Senate Committee on Commerce, Science and Transportation and provided a high level overview of our plan and progress. The following is intended to provide you with additional details regarding Metro-North-specific milestones, as well as additional information on how MTA's joint Metro-North/LIRR PTC project management team is working with contractors and the Federal Railroad Administration (FRA) to meet our PTC schedule.

As stated to the MTA Board and in formal testimony before the Senate Committee, the MTA is currently scheduled to meet all statutory requirements by December 31, 2018. Our current schedule indicates that we will have successfully exited Revenue Service Demonstration (RSD) and be in the process of phasing PTC in across Metro-North territory by the end of 2018. Our unique challenges to full implementation by this date are discussed more fully below.

PTC progress and status reports are presented to the MTA Board monthly. Our intention is to be completely transparent to the Board and the public about how full PTC implementation is progressing, the status of FRA milestones, and what safety benefits will be or have been met prior to the December 31, 2018, deadline.

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As of April 4, 2018, Metro-North's overall PTC implementation status is at 65%; however, this is a composite statistic that in some respects underrepresents our current state of readiness.

Significant FRA milestones for Metro-North include:

- Radio Spectrum Acquisition – 100%
- Installation of Hardware – 81%
- Employees Trained – 84%
- Pilot Segments/RSD Progress – 40%

The single most important upcoming milestone is the commencement of RSD on Metro-North's pilot segment, which is on the Hudson Line between Croton-Harmon and Tarrytown. The RSD phase will be our first opportunity to turn on full PTC technology on a defined segment of tracks during normal revenue service and will allow us to identify and correct any issues that become apparent during real-world operation. Both Metro-North and LIRR are on track to submit their RSD applications to FRA in early July. We are operating under the assumption that we will obtain FRA approval in time to commence RSD by September 2018.

To prepare for RSD, hardware installation for the pilot segment has been completed, employees on the pilot segments have been trained and Metro-North is working closely with our System Integrator (a consortium of Bombardier and Siemens) to complete the development of the core PTC software and to conduct site performance testing. It is important to point out, however, that until we actually begin RSD and see how PTC works in real world conditions, we have no way of knowing how long the RSD period will last. We are working closely with FRA to get a good understanding of their expectations and criteria for exiting RSD successfully and rolling out PTC to the remainder of the railroad.

As David Mayer explained during his testimony to Congress, PTC is not an "off the shelf" technology, and the density of our commuter rail operations constitutes an unprecedented technical challenge to its successful implementation. PTC is an overlay onto Metro-North's existing signal systems, but significant software changes are needed to ensure PTC operates safely and correctly on a network as dense as Metro-North's service area.

We share your sense of urgency about deploying PTC as quickly and safely as possible, and we are working aggressively to meet our schedule. Though not a federal requirement, we have retained a third-party independent engineer to identify areas of schedule risk and actions to reduce or eliminate these risks. Our most significant area of concern relates to the vendor software development necessary to operate safely with PTC in our dense commuter rail environment. Over the past several months, we have identified a limited set of critical variances in the core PTC software functionality that must be resolved before we are able to proceed with site testing and, ultimately, RSD. We are fully engaged with our System Integrator in resolving

these variances, and we have pressed the System Integrator to hire additional staff from all over the world and expend additional resources to resolve these variances, complete the integrated testing necessary to prove the PTC system is safe and works as intended, and resolve any additional unknown technical issues that may occur during testing. We have retained additional third party resources to supplement staff to assist in radio frequency testing and in the preparation of necessary documentation to support our applications for FRA approval. Railroads around the country are taxing the resources of a limited set of vendors. When these vendors' schedules slip, our schedules slip.

FRA staff have been and continue to be good partners in guiding the MTA in the development of the RSD and all other PTC matters, but the FRA has acknowledged that they have their own staffing limitations. As the deadline approaches, railroads across the country will be dependent on the FRA for timely review and approval of our plans and documents.

It is important to point out, however that while PTC is a life-saving technology, it is only one important part of the safety of our transportation network. Metro-North already operates with a high degree of safety because of functionality provided by our existing signal systems. On Metro-North's three east of Hudson lines (except for the Waterbury Branch in Connecticut, which is undergoing signal system upgrade), we currently use Centralized Traffic Control (CTC) with a Cab Signal System (CSS) and Automatic Train Control (ATC).

Starting in June of 2016, Metro-North began implementing wayside Civil Speed Enforcement (CSE) on the New Haven Line, with completion across our entire system this past February. CSE provides PTC-based protection against overspeed derailments like the Spuyten Duyvil derailment in 2013 or the recent Amtrak derailment in DuPont, Washington. Currently, Metro-North operates with CSE protection on M-7 and M-8 electric trains, and in March, we began operating equipped diesel trains with CSE protection. As we continue to install on-board PTC equipment on the diesel and M-3 fleets, we expect to have all trains operating with CSE protection by September. This early deployment of PTC-based technology has reduced risk of overspeed derailments in advance of the PTC deadline, and has reduced risks associated with our rollout of full PTC functionality across Metro-North territory.

Another important safety initiative is Metro-North's award winning Enhanced Employee Protection System (EEPS). EEPS, which was developed and rolled out in 2014, already satisfies the mandate in the PTC legislation to protect track workers against incursions into established work zone limits.

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Wholly apart from these initiatives, which delivered certain PTC functionality to our system before the December 31, 2018 deadline, Metro-North has implemented other key safety initiatives. These include:

- development and implementation of an industry-leading sleep apnea screening and treatment program;
- development and implementation of the FRA Confidential Close Call Reporting System (C3RS) across all Metro-North unions and locations to create a more robust safety culture by encouraging railroad employees to report close calls without fear of discipline or other reprisal;
- evaluation of technologies to help improve grade-crossing safety;
- installation of on-board cameras and alerters on our trains; and
- expansion of track inspection and track geometry programs to identify and correct track conditions before incidents occur.

Again, I would like to thank you for your continued interest in this very important topic. Please be assured that we share your commitment to deploying PTC as safely and expeditiously as possible across Metro-North territory. I look forward to working with your office as Metro-North continues to deliver safe, reliable service to all our customers and to meeting you in Washington at your convenience.

Sincerely,

A handwritten signature in cursive script that reads "Catherine A. Rinaldi". The signature is written in dark ink and is positioned to the right of the word "Sincerely,".

Catherine A. Rinaldi