NEC FUTURE
A Rail Investment Plan for the Northeast Corridor

Webinar on Tier 1 EIS Alternatives Report
September 17, 2015

Speaker's Remarks

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1	Title Slide: Our Future on Track	
2	The Big Picture	• NEC FUTURE is a comprehensive plan for the Northeast Corridor, the rail spine from Washington, D.C. to Boston. The plan will define a long-term vision for improved passenger rail service, and an incremental approach to get there. • In this plan, the FRA is looking at service for all types of passengers – not just intercity but also daily commuters. It's the first plan to consider these varied services in an integrated way and with a long-term perspective.
3	The Big Questions	We've taken on some big questions with this effort: • First, how will the NEC keep pace with growth over the next 25 years? With aging infrastructure and limited capacity, the NEC is struggling just to meet today's demand. • And is it enough just to keep pace with growth, or does rail need to play a bigger role? All of our modes are at capacity, and this process will help determine the best role for rail in the future.
4	Key Needs	This slide shows the key needs the plan will address: • Achieve and maintain a state of good repair o Investment in maintaining the NEC assets has fallen behind, so catching up is a priority. • Strengthen rail connections and fill gaps between services o People are traveling differently today. We are looking at how to extend the market reach of the NEC to make the system more accessible, as well as make connections more convenient. • Add capacity, improve performance, and safeguard the system against unexpected events • The plan also seeks to promote environmental sustainability and economic growth. The NEC is a vital economic lifeline for the Northeast. Keeping it operating is critical, and improving it will promote economic growth in the region.

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5	Schedule	• The FRA began work on NEC FUTURE in 2012 by engaging agencies and the public to identify key issues. • In the past two years, we focused on developing alternatives and analyzing them for a Tier 1 Environmental Impact Statement, or EIS, which is now underway. You'll often hear us refer to "Tier 1" – which means a broad, high-level environmental review, the first stage of the environmental process for a major federal action. • The Tier 1 EIS is being carried out according to the requirements of NEPA, the National Environmental Policy Act. • A draft of this document will be released for public comment later this year, and then a Tier 1 Final EIS will identify the recommended investment program. • In 2016, we anticipate issuing a Record of Decision on the action to be taken. • The last step will be to prepare a Service Development Plan, or SDP, that turns the outcome of the EIS into a blueprint for implementation. • Together, the Tier 1 EIS and SDP will provide a framework to guide investment projects in the corridor through 2040.
6	Process is Collaborative	• Collaboration is the cornerstone of NEC FUTURE. We began without a preconceived outcome in mind, listening to our stakeholders in hundreds of meetings, and maintaining an open public involvement process. • The FRA has worked closely with the eight states and the District of Columbia, the railroad operators, and the NEC Commission. The Commission is a forum for key stakeholders to coordinate priorities on the NEC. • We also coordinate with a variety of agencies at all levels of government. • And the public has a key voice in the process as well.
7	Let's Talk Alternatives	Now let's focus on our alternatives.
8	Alternatives Development	• We've considered a broad range of alternatives for the NEC, starting with nearly 100 Initial Alternatives. These were consolidated to form 15 Preliminary Alternatives, which were analyzed and discussed extensively with stakeholders and the public. • We've now completed refining the alternatives, and are working with a total of four: three Action Alternatives and a No Action Alternative that provide distinct choices for the NEC.

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9 10 11 12	Refining the Alternatives	• The FRA refined the Action Alternatives through a phased and iterative process that drew from multiple sources and types of information and work products. • First, Service Plans were developed for each Action Alternative. • These Services Plans were refined to incorporate feedback and input from stakeholders and output from the initial ridership model. Additional refinements were made to balance the rail infrastructure associated with each Action Alternative and provide flexibility for the Regional rail operators, with an emphasis on the areas in and around major terminals. • The FRA further refined the Service Plans using iterative work with the service planning, ridership, and cost modeling efforts. The FRA compared results from the ridership model with the service levels, and subsequently adjusted the Service Plans to confirm that (1) capacity is reasonably in line with estimated ridership; and (2) the proposed services generate revenues in excess of operations and maintenance costs in 2040.

13	What's in an Alternative?	Before getting into the individual alternatives, let me tell you what they represent. Each Action Alternative has four basic elements:
		• First, the level of passenger rail service that will be provided in 2040 – how many trains, by type of service;
		• Next, a set of geographic markets to be served by passenger rail;
		  o These are the cities or areas that will receive service on the NEC, rather than specific station locations
		• In addition, there is a representative route that connects these markets.
		  o We use the term "representative route" because at the Tier 1 level, we are not looking at specific alignments.
		• And finally, infrastructure improvements that would support the level of service identified.
		  o These are defined at a conceptual level: for example, so many miles of new track, tunnels, or structures that would be needed.

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14	Markets	In line with the market-based approach of NEC FUTURE, the FRA developed a hierarchy of station types, based on the size of the geographic market and type and quantity of rail service offered. This typology applies to existing stations and future stations included in the No Action and Action Alternatives. Stations are grouped based on similar characteristics into one of three categories: • Major Hub stations serve the largest markets in the Study Area and have the full complement of rail services types. Major Hub stations serve the four primary markets: Washington, D.C., Philadelphia, New York City, and Boston, as well as other major markets within the Study Area, including but not limited to Baltimore, MD; Stamford, CT; and Providence, RI. • Hub stations offer some Intercity service, although it's more limited than at Major Hub stations. Hub stations include the existing smaller intermediate Amtrak stations, as well as selected local stations and new stations that have the potential to fill connectivity gaps in the existing passenger rail network, serve special trip generators, and/or provide important inter-modal connections. • Local stations are served almost exclusively by Regional rail (commuter) trains, on the portions of the NEC where Regional rail service is offered. Examples of local stations include Halethorpe, MD; Claymont, DE; Torresdale, PA; Edison, NJ; Larchmont, NY; Westport, CT; Wickford Jct., RI; and Attleboro, MA.

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15	Service Plan	The FRA developed Service Plans for the No Action and Action Alternatives to describe the types and levels of passenger train service operating on the NEC in 2040. • These Service Plans depict a representative train operations pattern for a typical future weekday. • This provides a basis for estimating future ridership and capital investment needs and costs, as well as to assess the environmental impacts associated with planned construction and future operations. For NEC FUTURE, the FRA organized the various types of passenger rail service based on travel distance, travel market, trip purpose, where and how the trains operate, and the service characteristics and amenities offered to passengers. • Intercity-Express – premium Intercity high-speed service offered on the NEC, making limited stops along the NEC and only serving the largest markets. Intercity-Express service offers the shortest travel times for intercity trips, with a higher quality of onboard amenities, at a premium price, using state-of-the-art high-speed trainsets. • Intercity-Corridor – Intercity services that operate both on the NEC and on connecting corridors that reach markets beyond the NEC. These trains provide connectivity and direct one-seat service to large and mid-size markets on the NEC. • Metropolitan – Intercity service on the NEC, a subset of Intercity-Corridor service, and the successor to the existing Amtrak Northeast Regional Service. Whereas Intercity-Express service is aimed at the business travel market, Metropolitan trains serve both leisure and business travelers who are more price-sensitive. • Intercity-Corridor-Other – Intercity-Corridor service that provides connectivity and direct one-seat service between non-electrified connecting corridors and the large and mid-size markets on the NEC • Long-Distance – Intercity trains connecting the Study Area with other parts of the United States. • Regional rail – service within a single metropolitan area to local markets. Regional rail trains provide local and commuter-focused service characterized by relatively low fares and a high percentage of regular travelers.
16	Representative Route	The Representative Route refers to the physical path (or footprint) of an Action Alternative, and is used to assess the potential environmental effects of the Action Alternatives. At the Tier 1 level, the footprint is only representative of where the physical route is located, and is not a prediction of future preferences or decisions. Recognizing the uncertainty that exists at this early stage of planning, the Representative Routes provide a sound basis for programmatic evaluation of the environmental effects of each Action Alternative.

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17	Infrastructure Elements	The Action Alternatives use existing and proposed infrastructure to support the operations necessary to meet market growth and the specific vision of that alternative. Infrastructure Elements that make up the Action Alternatives, as shown on the alternatives maps, consist of the following: • Chokepoint relief projects – location-specific capital projects to provide relief of train movement congestion and increase railroad capacity at several existing chokepoints • New Track – improvements that increase capacity or improve trip times, generally contained within the right-of-way of the existing NEC • New Segment – New track construction on new right-of-way that does not follow the existing NEC
18	Common Elements	Besides these four basic elements, we've incorporated some key assumptions into each Action Alternative. Each improves service on the existing NEC, achieves a state of good repair, and protects freight rail access and the opportunity for freight expansion.
19	No Action Alternative	• The No Action Alternative looks a lot like today's NEC. It's a baseline for comparison with the Action Alternatives. • It has the same number of trains as today, but the quality of service declines, with aging infrastructure and a larger number of passengers trying to use it. • The whole system is severely constrained by a lack of capacity. As an example, we're currently limited to just two tunnels under the Hudson River and four under the East River, all built more than 100 years ago. • Infrastructure in the No Action Alternative includes projects currently planned and programmed, as well as repairs that are needed to keep the railroad operating. The No Action Alternative assumes a higher level of funding for maintenance than has been available historically.
20	Alternative 1	• Alternative 1 maintains the role that rail plays today, by increasing service to keep pace with growth. • This means adding more capacity. In blue you can see several new rail segments, including the B&P Tunnel replacement in Maryland, two new Hudson River tunnels, and a new segment between Old Saybrook and Kenyon, RI, which provides travel-time savings. • There are also sections of new track within the existing right of way, as you can see in green, and a series of projects throughout the corridor to eliminate chokepoints. It's important to fix these chokepoints, because when something goes wrong on the corridor, it tends to create a domino effect. An issue on a bridge in Maryland or New Jersey can affect service in Connecticut.

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21	Alternative 2	• Alternative 2 grows the role of rail, with service to new areas, reduced trip times, and greater frequency. • We've incorporated service to the Philadelphia International Airport. • And instead of the Old Saybrook Kenyon bypass we saw in Alternative 1, there is a new supplemental two-track route from New Haven to Hartford and Providence that would support higher-speed service. • The existing NEC expands to four tracks, with six tracks through portions of New Jersey and southwestern Connecticut. • And again, there is investment to relieve chokepoints.
22	Alternative 3	• Alternative 3 represents a paradigm shift for the NEC. In addition to upgrading the existing NEC, it includes a second spine the entire length of the corridor that could support higher-speed service between major cities. • From D.C. to New York, the route runs largely parallel to the existing NEC, with new stations in downtown Baltimore, downtown Philadelphia, and at the Philadelphia Airport. • North of New York, there are a variety of options to improve rail service. We're looking at two different ways of getting from New York to Hartford—either through Long Island or Central CT. And two ways of getting from Hartford to Boston, via Providence or Worcester. • New stations would depend on the route option selected; some of these are shown on the map. • Looking at these routing options allows us to test the potential for rail service in areas that currently lack intercity rail. For instance, although Long Island has commuter rail service, it has no intercity service today. And there is no direct transportation, either by rail or highway, between Hartford and Providence. • Alternative 3 has a total of six Hudson River tunnels and six East River tunnels, dramatically expanding the capacity of the system and the volume and mix of services provided. • And again, there is investment to relieve chokepoints.
23	Service Comparison	To round out the discussion of alternatives, let's take a look at the service levels provided.

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24 25 26 27	Express Travel Times	Here's a look at what would happen to express travel times. (These are the shortest travel times on the system, whether that's a service similar to today's Acela, or a higher speed service on a second spine). • Today, and in the No Action Alternative, the shortest trip from New York to Boston takes 3 ½ hours, and a trip from Washington to NY takes 2 hours and 45 minutes. • Alternative 1 reduces the express travel time from New York to Boston by half an hour. • Alternative 2 brings these times down further, and • In Alternative 3, travel times are reduced dramatically, with a trip from each end to NY taking only an hour and 40 minutes. So a trip over the entire corridor could be made in just over 3 hours.
28 29 30 31	Intercity Peak Hour Trains	We've heard throughout the process that frequency is just as important as travel time. Here's what would happen to the frequency of intercity trains crossing the Hudson River at the busiest time of day. • In the No Action Alternative, there are three trains an hour. • In Alternative 1, that more than doubles, to 7 trains an hour. • In Alternative 2, it's 10 trains per hour, and • In Alternative 3, the number rises to 16. With service this frequent, riders might not even need to refer to a schedule – they could just show up at the station and know there would be a train soon. Frequency would also increase on the regional commuter systems on the corridor, providing more flexibility for passengers, and easing the congestion on some of these lines.

32	Innovative Approaches	Innovative approaches to improve the passenger experience have also been incorporated in all of the Action Alternatives. These include:
		• A new type of intercity service that stops at more stations than Amtrak does today
		  o *This would be more frequent and affordable than today's intercity service, and passengers might be able to hop on these trains without a reservation, providing more flexibility.*
		• Higher performing equipment
		  o *These trains could stop and start quickly, allowing service to more stations without adding travel time.*
		• Coordinated schedules and ticketing
		  o *With integrated operations on the NEC, passengers using more than one service would no longer have to buy separate tickets from each of the operating railroads.*
		• And easier transfers between services, with some stations becoming hubs for coordinated arrival times.

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33	Hub Stations	Here is an example of how the hub concept could work at Philadelphia's 30th Street station. Different types of trains would be timed to overlap at the station, allowing passengers from smaller cities, such as Wilmington, to catch an express train in Philadelphia. The hub system also facilitates transfers between connecting corridors, such as the Keystone line, and other trains on the NEC.
34	Benefits	Each of the Action Alternatives would provide significant benefits to rail passengers and to the Northeast region as a whole: • Passengers would be able to reach more destinations conveniently by rail, whether for work or play. • They would have more frequent, reliable service, more convenient connections, and a greater range of fare options. • Northeast businesses and institutions could draw on larger labor pools and interact across a wider area, creating a more integrated and competitive economic region. • Cities and station areas with new service would likely become more attractive for development. • The results would be far-reaching, helping to power regional growth and mobility for future generations.
35	Next Steps	• The next step is to complete the Tier 1 Draft EIS, which will include information on how well each alternative meets the needs identified, and how they compare on ridership, costs, and environmental and economic effects. • The Tier 1 Draft EIS will be released towards the end of the year. • At that time, there will be a public comment period followed by public hearings in each state and D.C. • The comments we get will help inform FRA's decision on a preferred alternative for the Tier 1 Final EIS. o *It's possible that the preferred alternative will incorporate changes from those I've shown you today, if there are good reasons to modify an alternative.* • The plan will wrap up in 2016, with a Record of Decision that documents FRA's selection of an investment program, and the Service Development Plan - a blueprint for implementation.
36	Please Stay Involved!	I hope you will stay involved, visit our website, and take part in the upcoming public comment period for the Tier 1 Draft EIS. We look forward to hearing your thoughts on the important choices ahead. Thank you!