

# 2015 FRA Rail Program Delivery



## Vehicle Attributes & Procurement Management

Track 3: Project Funding, Financing, Procurement,  
and Policy

Wednesday, 4:00-5:30PM

# Introduction Panel Participants

- **Wynne Davis, FRA** – Midwest Regional Manager
- **Linda Martin, FRA** – Deputy Assistant Chief Counsel
- **Jeff Gordon, FRA** – Program Manager Research & Development
- **Momoko Tamaoki, Caltrans** – Branch Chief, Bi-level PM
- **Jennifer Bastian, IDOT** – Section Chief of Passenger Rail Rolling Stock, Locomotive PM
- **Aaron James, CH2M HILL** – MTAC Program Manager
- **Nico Lindenau, CH2M HILL** – MTAC Task Order Mgr.

# Stakeholders' General Roles & Responsibilities

Simplified Procurement Process:	Planning/ Final Design	Production/ FAI	Pilot Vehicles	Testing	Revenue Vehicles	
Vehicle Mfr.	<ul style="list-style-type: none"><li>Design compliant w/ tech specs &amp; federal &amp; industry stds.</li><li>Generates production, quality &amp; test plans</li></ul>	<ul style="list-style-type: none"><li>Produces/receives equipment from suppliers</li><li>Verifies form, fit function, &amp; manufacturability.</li></ul>	<ul style="list-style-type: none"><li>Demonstrates proof of design, vehicle aesthetics</li></ul>	<ul style="list-style-type: none"><li>Demonstrates all operational features</li><li>Demonstrate safety features &amp; reliability</li></ul>	<ul style="list-style-type: none"><li>Delivers safe high-quality, vehicles &amp; supporting documentation on schedule</li></ul>	
Grantee/ Consultant (SME)		<ul style="list-style-type: none"><li>Oversees mfg. activities &amp; schedule</li><li>Audits QA processes</li><li>Performs BA audits</li></ul>	<ul style="list-style-type: none"><li>Verifies proof of design</li><li>Verifies maintainability</li></ul>	<ul style="list-style-type: none"><li>Monitors all onsite vehicles testing and commissioning</li><li>Confirms RMSH factors</li></ul>	<ul style="list-style-type: none"><li>Accepts and takes ownership of vehicles</li><li>Accepts supporting documentation</li></ul>	
Grantor/ Overseer (FRA/ MTAC)	<ul style="list-style-type: none"><li>Ensures adequacy of planning &amp; funding</li></ul>	<ul style="list-style-type: none"><li>Confirms non-safety related federal reqts are met incl. ADA</li><li>Confirms TCC</li></ul>	<ul style="list-style-type: none"><li>Witnesses select FAIs</li><li>Monitors BA Compliance</li><li>Monitors production schedule</li></ul>	<ul style="list-style-type: none"><li>Witnesses select proof of design qualification tests</li></ul>	<ul style="list-style-type: none"><li>Monitors readiness for revenue operations</li></ul>	<ul style="list-style-type: none"><li>Confirms grant requirements have been satisfied</li><li>Closes out the Grant</li></ul>
FRA Safety Regulator	<ul style="list-style-type: none"><li>Confirms design meets safety regulations</li></ul>	<div><ul style="list-style-type: none"><li>Confirms as-built vehicle complies with safety regulations</li></ul></div>			<ul style="list-style-type: none"><li>Approves vehicles for revenue service operation</li></ul>	

# 2015 FRA Rail Program Delivery



## FRA National Equipment Program

Wynne Davis, FRA  
Midwest Regional Manager



# FRA equipment program goals

FRA initiated a multi-pronged strategy to address the challenge

## FRA Actions

***Program Goals*** – established goals to guide FRA decisions

***Funding*** – utilized HSIPR grants and RRIF loans to provide funding for immediate needs

***Next Generation Equipment Committee (NGEC)*** – actively engaged with NGEC and the States to prepare for and execute procurements

***Technical Assistance*** – providing technical assistance to states for equipment procurements

## Equipment Program Goals

***Jobs*** – re-establish the manufacturing base in the US and create high quality jobs

***Quality*** – ensure that rolling stock better matches the needs of state corridors and represents next generation equipment

***Costs*** – minimize life cycle costs consistent with maintaining a state of good repair

***Flexibility*** – equipment that is managed and deployed based on market demands with the ability to re-allocate as necessary



# PRIIA "Section 305" Next Generation Equipment Committee

**Jeff Gordon**

**FRA**

**Office of Research, Development and Technology**



# Background

- Passenger Rail Investment and Improvement Act (PRIIA) of 2008 created the Next Generation Equipment Committee (NGEC) formed in January 2010
- PRIIA Section 305 required Amtrak to:
  - ...establish a Next Generation Corridor Equipment Pool Committee, comprised of representatives of Amtrak, the Federal Railroad Administration, host freight railroad companies, passenger railroad equipment manufacturers, interested States, and, as appropriate, other passenger railroad operators.*
- Develop specifications and procure standardized next generation corridor equipment
- Identify equipment needs (types) and establish pool
- Subject to agreements, Amtrak may design, maintain and remanufacture equipment



# Stakeholders & Project Partners

## States:

- California
- Illinois
- Iowa
- Louisiana
- Michigan
- Missouri
- New York
- North Carolina
- Oklahoma
- Washington
- Wisconsin

- Amtrak
- The American Association of State Highway and Transportation Officials (AASHTO)
- USDOT/FRA

### Vision statement:

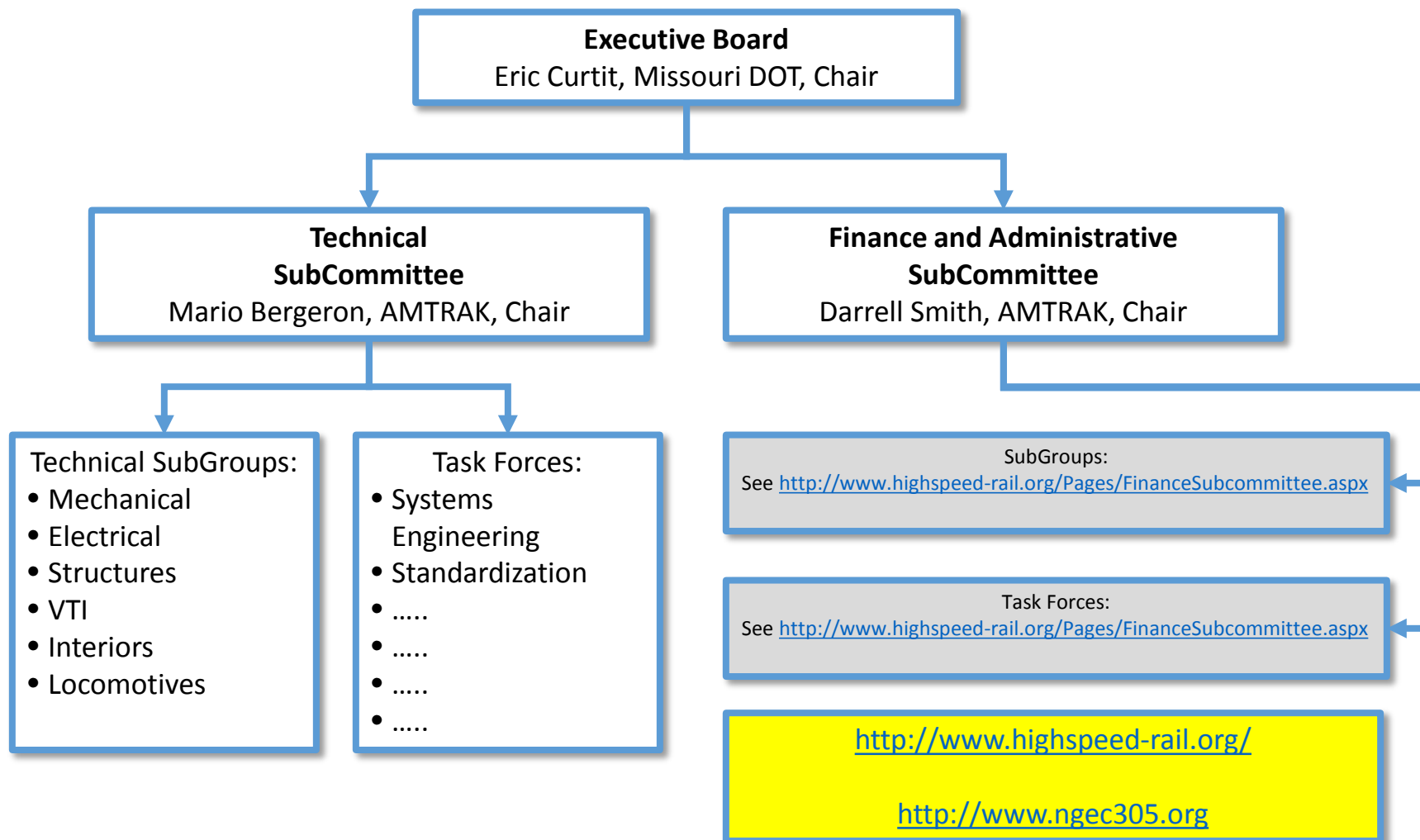
***“The NGECC will provide national leadership in standardization, acquisition, financing and management of passenger rail equipment.”***



# Goals

- **Improving passenger rail service**
- **Reducing fleet life cycle costs**
- **Creating Jobs -- Buy America**
  - PRIIA funding is subject to the Buy America provision of 49 U.S.C. § 24405(a)
  - Requirement for 100% domestic content is challenging
  - Lack of sustained demand for equipment (orders) impedes progress toward revitalization of US passenger railcar manufacturing base
- **Standardization**
  - More continuous demand
  - Reduced parts inventories
  - Useful to Amtrak, State Corridors and Commuter Service
- **Improved Accommodations for Disabled**

# Organization



# Specification Development Process

- Largely volunteer effort with 200+ industry participants
- Executive Board identifies need and develops requirements document
- Technical subcommittee creates specification compliant with those requirements
- Technical subgroups prepare discrete chapters based on subject matter expertise
- Chapters combined into standardized specification format
- Revisions addressed using rigorous change management process

# Accomplishments

- Technical Specifications:  
Bilevel, Single Level, Trainset, Diesel-Electric Locomotive, DMU, Dual-Mode Locomotive
- Active procurements for bi-level coaches and D-E locomotives
- Equipment to operate at up to 125 mph (except DMU, dual-mode loco)
- All equipment to incorporate modern safety features
- Rail Supply Chain Connectivity outreach with National Institute of Standards and Technology/Manufacturing Extensions Program (NIST/MEP)
- Specifications include enhanced ADA accommodations

**Thank you!**

**If you have any questions or need additional information, you may contact me at:**



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**(617) 494-2303**

# 2015 FRA Rail Program Delivery



## FRA Buy America & Related Requirements: Rolling Stock

Linda Martin

FRA Deputy Assistant Chief Counsel





# Sourcing Domestically is the BEST Option

**FRA believes that passenger rail equipment can and should be manufactured in the United States**

- This includes rail cars/locomotives AND rail infrastructure construction materials

**FRA will ensure that grant funds are spent domestically whenever possible**

- Where not currently a domestic source, FRA will do what it can to encourage domestic production

**Buy America requirements aid and encourage the domestic rail market**

- Benefits the U.S. economy and all Americans



# FRA “Buy America”: Three Potential Requirements

## Three Statutes Potentially Apply

Statute	U.S.C. Citation	Applicable Programs & Projects
Buy America (PRIIA)	<a href="#">49 U.S.C. § 24405(a)</a>	<ul style="list-style-type: none"><li>• PRIIA-authorized projects (FY 2010+ HSIPR appropriations and ARRA)</li><li>• RRIF</li><li>• TIGER</li></ul>
Amtrak Domestic Buying Preference	<a href="#">49 U.S.C. § 24305(f)</a>	<ul style="list-style-type: none"><li>• Amtrak capital grants</li></ul>
The Buy American Act	<a href="#">41 U.S.C. § 8302</a> et seq. (formerly § 10a-10c)	<ul style="list-style-type: none"><li>• Rail Line Relocation grants</li><li>• FY 2008 Capital Assistance to States grants</li><li>• FY 2009 HSIPR projects</li><li>• FY 2015 Crude Oil grants</li></ul>

Requirements attach to grant funding source for each project (follow the money!).

# Understanding and Applying FRA Buy America: PRIIA Requirements

## PRIIA Buy America Requirements (49 U.S.C. §24405(a))

- **Buy America requirements also apply to items purchased with non-grant funds if used in a grant-funded project.**

### **Applies to two major categories**

- **Manufactured end products, including rolling stock, and their components**
- **Steel and iron**

**Applies to spare parts, used or inventoried items included in an FRA funded project.**

# Understanding and Applying FRA Buy America: PRIIA Requirements

## PRIIA Buy America Requirements (49 U.S.C. §24405(a))

### Rolling stock

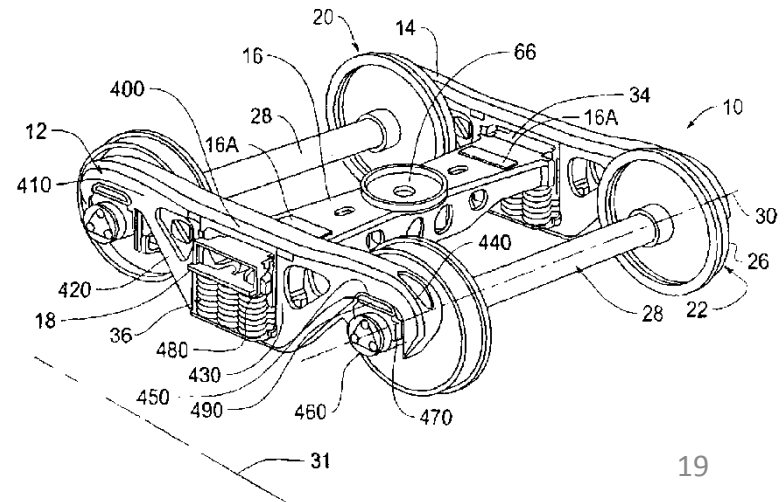
- Rolling stock final assembly must take place in the U.S.
- Railcars contain multiple systems and components, which must be manufactured in the U.S.
- Request for proposals should contain a component list of rolling stock systems and components that must be manufactured in U.S.



# Understanding and Applying FRA Buy America: PRIIA Requirements

## PRIIA Buy America Requirements (49 U.S.C. §24405(a))

- **Example:** Trucks are a system included in railcars, with many components (e.g. wheels, axles, axle drivers, shock absorbers). The trucks and these components all must be U.S. manufactured
- **Subcomponents need not be manufactured in U.S. (but still recommended)**



# Understanding and Applying FRA Buy America: Demonstrating Compliance

## Demonstrating Compliance

### What contractors need to do?

- Follow directions in solicitations, RFPs, and their addenda
- Include flow-down requirements in subcontracts
- Maintain certifications for all procurements
- Actively look for fraud and mistakes and report those mistakes
- Cooperate with audits of Buy America compliance

### Sample format for certification of Buy America compliance:

The bidder or offeror hereby certifies that it will comply with the FRA Buy America requirements of 49 U.S.C. Section 24405(a)(1).

Date \_\_\_\_\_  
Signature \_\_\_\_\_  
Company \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

# Understanding and Applying FRA Buy America: Waivers

**Buy America (PRIIA) Waivers can only be granted if one of the following apply**

- 1. Enforcing Buy America requirements would be inconsistent with U.S. public interest**
- 2. U.S. goods are not produced in sufficient quantity or quality to meet project needs**
- 3. U.S. rolling stock or power train equipment cannot be delivered within a reasonable time**
- 4. Domestic material will increase the cost of the overall project by more than 25 percent**

**Waivers are always a case-by-case evaluation – FRA currently has no blanket approvals for specific products**

- Waiver approval process must be followed in every case**

# FRA is NOT the FTA



FRA Buy America does not include an additional waiver regarding a 60% component and American assembly allowance for rolling stock (this is ONLY found in the Federal Transit

Administration's Buy America statute (49 U.S.C. § 5323(j)).



# WAIVER PROCESS

- First determine if waiver required. FRA can help.
- **Do not expect a waiver.**
- Grantee normally applies for waiver. Starts with a letter to the Administrator.
- Be specific, avoid delays. Needed info detailed in FAQs.
- All request for waivers and decisions to grant waivers will be posted on FRA's website.
- **Waivers are project-specific, time-limited, and contingent upon grantee/vendor efforts to find domestic sources**
  - Before granting a waiver, FRA expects requester to have used best efforts to find domestic sources
  - FRA will independently verify assertions made in waiver requests



# Understanding and Applying FRA Buy America: NIST-MEP

## NIST-MEP

FRA participates in an interagency agreement with the National Institute of Technology and Standards (NIST)

- NIST-MEP may scout for available domestic products on behalf of FRA, or directly for grantees



**MEP • MANUFACTURING  
EXTENSION PARTNERSHIP**

NATIONAL INSTITUTE OF  
STANDARDS AND TECHNOLOGY

U.S. DEPARTMENT OF COMMERCE

### Contacts:

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- **David Stieren** ([David.Stieren@nist.gov](mailto:David.Stieren@nist.gov), 301-975-3197)

# Understanding and Applying FRA Buy America: Amtrak Requirements

## Amtrak Domestic Buying Preference (49 USC § 24305(f))

**Applies to Amtrak capital grants, for items purchased in excess of \$1,000,000**

- **Requires Amtrak to buy articles, materials and supplies manufactured in the U.S., that are substantially made from U.S. source materials (50 percent or more by cost)**

**PRIIA Buy America (49 USC §24405(a)) applies when Amtrak is operating under a PRIIA-authorized grant, performing a contract for another grantee, or using a RRIF loan**



# Thank You!

## FRA Buy America Resources:

[FRA Buy America Website](#)

[Frequently Asked Questions](#)

[Sign up for email updates](#)

## For Questions:

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# 2015 FRA Rail Program Delivery



## Americans with Disabilities Act & Related Requirements: Passenger Railcars

Linda Martin

FRA Deputy Assistant Chief Counsel



# Disability Population

- In 2010, approximately 56.7 million people living in the U.S. reported having some kind of disability.
- Constitutes 19 % of U.S. population.
- About 12 % or 38.3 million people reporting having a severe disability.
- Number of people with a disability increased by 2.2 million from 54.4 million people in 2005.

# Universal Access

- Well designed and connected transportation benefits everyone.
- People are encouraged to use alternative modes of transport other than the car more often when pleasant and accessible, resulting in a more sustainable, healthier, safer communities.



# Universal Design = Integrated Access

- Accessibility benefits everyone, not just people using wheelchairs, including families with baby strollers, the elderly, and passengers carrying luggage.
- Railcars capable of level-entry boarding provide safest, most operationally efficient and maintenance-free option for providing access to all passengers.

# Title II of the ADA: Responsibilities



- The **U.S. Department of Justice** has ultimate responsibility for enforcing the ADA.



- U.S. Access Board** creates guidelines that can be adopted in whole or in part by U.S. DOT in its regulations.



- U.S. DOT** is responsible for implementing transportation-related (including rail) regulations and guidance.



- FRA** is responsible for applying rail-related provisions of Title II of ADA and DOT regulations and guidance to its grantees.

# Sources of Railcar Standards

- Title II of ADA and Section 504 of Rehabilitation Act
- DOJ and DOT Regulations
- U.S. Access Board Accessibility Guidelines (ADAAG)
- DOT Guidance
- PRIIA 305 Committee Specifications

## 49 CFR Part 38

- Subparts F & H apply to intercity and high speed rail cars.
- Every new or remanufactured car must meet this standards.
- Covers restrooms, doorways, space and lift dimensions.
- Regulations are minimums.



## PRIIA – Section 305

- Specifications developed for: diesel multiple unit, single level passenger rail car, bi-level passenger rail car, locomotive, and trainset.
- Some specifications go above and beyond regulations (lifts on cars, larger vestibules and wheelchair spaces in bi-level cars).

# DOT Guidance: General Non-Discrimination Principles Apply Where No Specific Standards Exist

- General nondiscrimination principles found in Section 37.5(a) and Section 27.7(a) apply to railcar accessibility whether or not specific standard in regulation (49 CFR Part 38).
- This means that the impact of the design and construction of rail car features on passengers with disabilities should be accessed when designing (or remanufacturing) a railcar.
- Access Board design (ADAAG) for buildings can be used as guidance.

# Railcar Operability & Safety Need Not Be Ignored

- Design features need not be followed where doing so is infeasible because of particular geometric constraints of the rail car design, rail car safety, or operational considerations unique to rail transportation.
- In situations involving concerns about infeasibility, the passenger railroad should provide its rationale for noncompliance with these standards to the FRA and/or FTA, as applicable.



# Rail Advisory Committee (RVAAC)

- Regulation were promulgated in 1991.
- Access Board formed RVAAC to revisit these aging standards.
- RVAAC concluded its work July 2015.
- Final report available on Access Board website and on Regulations.gov.
- Rulemakings from Access Board and DOT to follow.

# Contact

Thank you!

Questions or need further guidance, you may contact me at:



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# 2015 FRA Rail Program Delivery



## FRA Equipment Grant Portfolio



# The six main FRA grants total over \$800M

#	Recipient	Amount of FRA Grant	Amount of State Match	Total Funding (Incl. State Match)	Federal Grant Fund Source	Number of Bi-level Cars	Number of Diesel-electric Locomotives
1	Caltrans/Phase 1 SDP	\$ 100,000,000	\$ 25,000,000	\$ 125,000,000	FY10 DOT Appr.	27	2
2	Caltrans/Phase 2 SDP	\$ 68,000,000	\$ 17,000,000	\$ 85,000,000	ARRA	15	4
3	ILDOT/St. Louis SDP	\$ 233,859,431		\$ 233,859,431	ARRA	30	12
4	IL-IA/Chicago-Quad Cities	\$ 67,800,000		\$ 67,800,000	FY10 DOT Appr.	10	2
5	IL-MW Next Gen Rolling St.	\$ 268,201,084		\$ 268,201,084	ARRA	48	7 (+12)*
6	WA/Pac NW Corridor SDP	\$ 64,231,500		\$ 64,231,500	ARRA		5 (+3)*
<b>Total Funding</b>		<b>\$ 802,145,033</b>	<b>\$ 42,000,000</b>	<b>\$ 844,145,033</b>		<b>130</b>	<b>47</b>

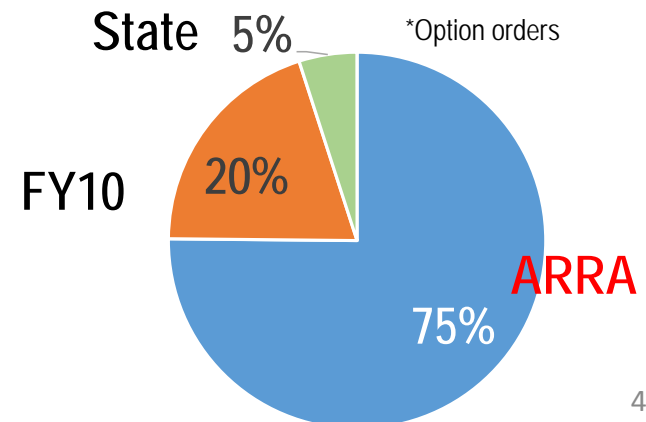
**\$800M+**

Only equipment related grants

Grants related to corridor construction and equipment

## Comments:

- Some grants also have state matches
- MTAC TO7 has oversight over additional grants



# This grant portfolio needs oversight from three perspectives

#	Recipient	Amount of FRA Grant	Number of Bi-level Cars	Number of Diesel-electric Locomotives
1	Caltrans/Phase 1 SDP		27	2
2	Caltrans/Phase 2 SDP		15	4
3	ILDOT/St. Louis SDP		30	12
4	IL-IA/Chicago-Quad Cities		10	2
5	IL-MW Next Gen Rolling St.		48	7 (+12)*
6	WA/Pac NW Corridor SDP			5 (+3)*
Total Funding		\$ 802,145,033	130	47

**1. Oversight for each Grantee**

**2. Oversight by Grant**

**3. Oversight by procurement**

**130 Bi-level Railcars**

**47 Diesel-electric Locomotives**

# Caltrans/IDOT Bi-Level Railcar Procurement Project

## Project History and Highlights

# Background: Why New CA Rolling Stock?

- **Caltrans last Rolling Stock purchases:**
  - Surfliner Bi-Level Cars: Late 90s;
  - California Car Bi-Level Cars: Early 90s;
  - Locomotives: 1990's;
- **Increased Demand for Intercity Passenger Service**
  - California's corridors are some of the most popular in the country;
  - Ridership is growing – a unique opportunity to promote passenger rail in California;
- **New Bi-Level Railcars will:**
  - Provide for increased ridership;
  - Replace leased Amtrak rolling stock;
  - Provide backup rolling stock to accommodate maintenance and wreck repairs.



# Supporting the Passenger Rail Investment & Improvement Act

- Caltrans and IDOT support the goals of PRIIA (passed in 2008) and the FRA's effort to promote passenger rail service in the United States and re-establish the rail rolling stock manufacturing base;
- Nippon Sharyo developed a new manufacturing facility in Rochelle, Illinois – a significant contribution to the goals of PRIIA and the rail manufacturing base in the United States.
- The Rochelle Plant consists of:
  - Shop 1 – Carshell Manufacturing;
  - Shop 2 – Final Vehicle Production;
  - Shop 3 – Parts Manufacturing;
  - All three shops are, or will soon be, ISO certified.

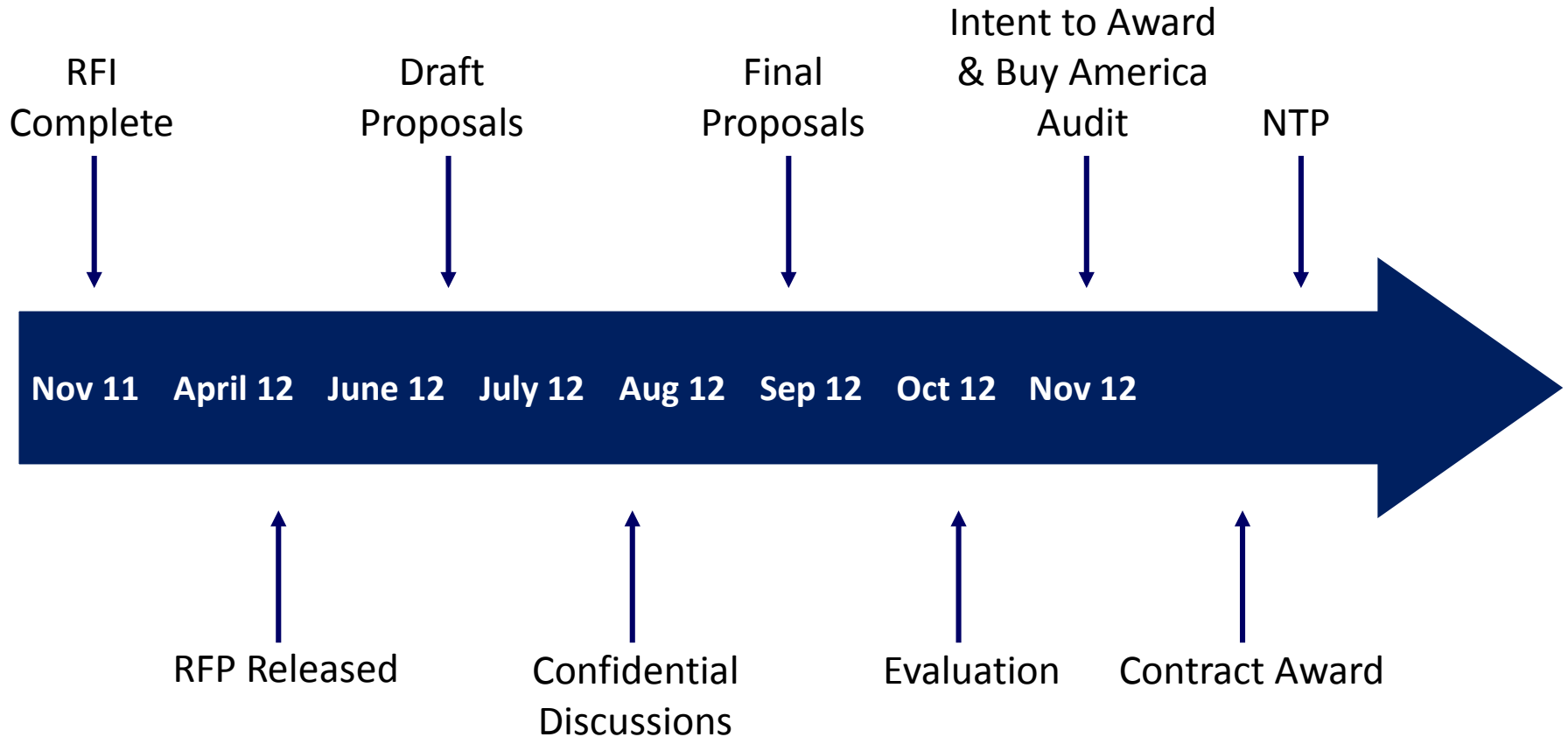




# Nippon Sharyo's Manufacturing Plant in Rochelle, Illinois



# Bi-Level Railcar RFP and Contract Award Timeline



It takes about a year to prepare for a contract award – if you have a technical specification (otherwise, add 6-12 months)

# FRA Grants and Joint Procurement (April 2011 to February 2012)

- **FRA Grants provides the majority of the procurement funding:**
  - Caltrans applied for and received two FRA grants to purchase new rolling stock;
  - IDOT applied for and received three FRA grants to purchase new rolling stock and various infrastructure projects;
  - WSDOT applied for and received one FRA grant (WSDOT is only part of the Locomotive procurement).
- **The States and the FRA worked together to develop:**
  - the Joint Rolling Stock Procurement Agreement (JRSPA) to govern the joint Railcar procurement process;
  - the Multi-State NGEC Locomotive Procurement Agreement to govern the joint Locomotive procurement process.

# RFP development (November 2011 to April 2012)

- **Released Request for Information**
  - Gather vendor reaction to tech spec & draft contract provisions
- **Developed RFP in less than 6 months combining:**
  - APTA template;
  - PRIIA Specification (approved by NGEC);
  - Caltrans & IDOT requirements and Standard Provisions;
  - FRA requirements, particularly Buy America, Standardization, Intellectual Property (IP), etc.
- **Large response from contractors:**
  - 7 major international builders expressed interest;
  - 6 submitted Draft Proposals and participated in Confidential Discussions;
  - 5 submitted Final Proposals;
- **Much of RFP development process and final RFP used as a model for the Multi-State Locomotive Procurement.**

# Evaluation Process (July 2012 to September 2012)

- **Unique approach to meet both Caltrans and IDOT requirements;**
  - Draft Proposals from 6 contractors with joint CT/IDOT/SME review of each;
  - Confidential Discussions with 6 contractors to discuss issues with Draft Proposals;
  - Final Proposals from 5 contractors;
- **Detailed joint CT/IDOT/SME review of Final Proposals;**
  - Joint evaluation and scoring of qualifying Final Proposals;
  - Detailed Evaluation Report with evaluation team rationale for scoring of Final Proposals;
- **Bi-Level Railcar Evaluation Process used as a model for the Multi-State Locomotive Procurement.**



# Nippon Sharyo's Bi-Level Railcar



## Features:

- Crash Energy Management
- Positive Train Control
- 125 MPH capable
- Built to PRIIA Specifications

## Four Car Types:

- Coach Car
- Cab Car
- Café Lounge Car
- Business Class Car (IDOT)



# Contract Award (November 2012)

- **Caltrans/IDOT budgeted \$500+ million for the procurement of the Base Order of 130 Bi-Level Railcars;**
- **Winning price \$350+ million (minus 36% than budgeted)**
  - Winning contractor Sumitomo/Nippon Sharyo is a highly respected international builder of rail rolling stock;
  - All qualifying Final Proposals were less than the budgeted amount (likely result of bundling demand from different regions to one large amount)
- **Extremely beneficial price for Bi-Level Railcar contract has allowed states to consider option orders for additional rolling stock:**
  - Caltrans may purchase 11 additional Bi-Level Railcars with state funds available;
  - IDOT will purchase 12 additional locomotives with federal funds available.

# Buy America (Pre-Award Audit October 2012)

- **Incorporated Buy America in RFP**
  - Developed comprehensive list of Buy America components in conjunction with the FRA;
  - Incorporated Buy America requirements into the RFP, as well as Proposal submittal and evaluation processes;
- **Performed first Pre-Award Buy America Audit per FRA Buy America Rules;**
  - Created a Buy America Pre Award Audit report for Caltrans/IDOT and submitted it to the FRA and the selected contractor prior to Notice to Proceed;
  - Monitoring Buy America compliance during the contract;
  - Perform additional Buy America Audits as needed;
- **Bi-Level Railcar Buy America Process was used as a model for the Multi-State Locomotive Procurement.**



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# 2015 FRA Rail Program Delivery



## IDOT/Caltrans/WSDOT Diesel Locomotive Procurement Project

### Project History and Highlights

# The Case for New Cars and Locomotives in the Midwest

- Amtrak Amfleet Cars are 32-to-40 years old
- In agreement with the FRA, an interim rehab of 13 Amfleet cars was performed at Amtrak-Bear, DE shops
- Amtrak Superliners are between 22 and 36 years old, Horizon Cars are 25-to-26 years old
- Amtrak P40DC and P42DC locomotives are between 14 and 22 years old
- ARRA/HSIPR procurements were a unique opportunity for the Midwest states to acquire new equipment
- Program provided opportunity to replace all over-aged equipment in use on the Midwest “Hub” Network in a single procurement
- Modern equipment and features on the cars and locomotives would reduce operating and maintenance costs significantly
- Dramatic improvement in on-board amenities

# Key Technical Features of the New HSR Diesel Locomotives

- 125 mph-capable
- Tier 4 Emissions-compliant – DEF
- Lowest possible weight and unsprung mass (through use of suspended traction motor support)
- Electronically-controlled air brake
- 600 kW (minimum) 3-phase, 480 Volt HEP
- Incorporates Crash Energy Management Features
- 25 year minimum design life
- Low maintenance and life-cycle costs



# Contract Award and Kick-Off Meetings (February to April 2014)

- IDOT Base Ordering Agreement (for the 21 locomotives) issued February 2014; the Master Agreement was dated March 2014
- Base Order also included 6 locomotives for Caltrans and 8 locomotives for WSDOT – total base order = 35 locos
- Kick-off Meeting with representatives of Caltrans/IDOT/WSDOT, FRA and Siemens was held on April 14-15, 2014

# Procurement Timing

Task	2013	2014	2015	2016	2017
RFI & RFP					
Notice to Proceed	3/14/14				
Preliminary, Intermediate & Final Design Review					
Tooling Ramp Up					
FAI's					
Production 2 Pilot					
Testing 2 Pilot					
Final Acceptance Pilots	Nov. 2017				
Production Locos					
47th Loco	Au 20				

- 4 year timeframe with NGEN Technical Specifications
- Contractor Support





# Design Review Process (June 2014 to March 2015)

- Preliminary Design Review – Sacramento in June 2014
- Intermediate Design Review – Chicago between October and November 2014
- Locomotive Mock-Up Reviews – September 2014 (Sacramento) and December 2014 (including Munich 3D Reality Lab, etc.)
- Final Design Review – Seattle in February-March 2015



# Management of the Midwest HSR Locomotive Fleet

- The 33 locomotives (21 in base order, plus 12 in the option order) will replace all existing Amtrak locomotives on all 8 Midwest corridors
- Elimination of Amtrak lease costs



- Midwest States will jointly secure the services of a Fleet Manager
- Interim maintainer will continue to be Amtrak; RFP for maintenance contractor is a future procurement



# Preparing for Use of Diesel Exhaust Fluid (DEF) – PRIIA Working Group Established

- Includes Amtrak, DOT, FRA and Industry representatives
- Regular working sessions have been held since March 2015
- Working Group's responsibilities:
  - DEF delivery, storage and handling issues
  - Siemens "Charger" locomotive consumption rates
  - Employee safety requirements
- Master Schedule developed and distributed in August 2015 – activities through permanent distribution system



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# 2015 FRA Rail Program Delivery



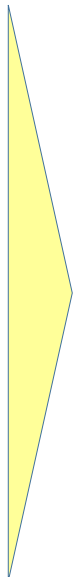
## Midwest Initiative for Management, Maintenance, and Equipment Ownership



# For the first time a multi-state region will own a rolling stock pool

## FRA Grant Requirement “Section 6”:

- Grantees need to develop a plan to own, manage, and maintain the equipment pool
- This plan shall contain, among others:
  - Equipment ownership structure
  - Management responsibilities
  - Assignment rights
  - Maintenance (best industry standard life-cycle preventative maintenance; overhaul cycles)
  - Funding for operations and maintenance/overhauls
  - Equipment (re-)deployment and cost sharing terms
- An ownership/ management /maintenance agreement shall be signed prior to delivery of equipment

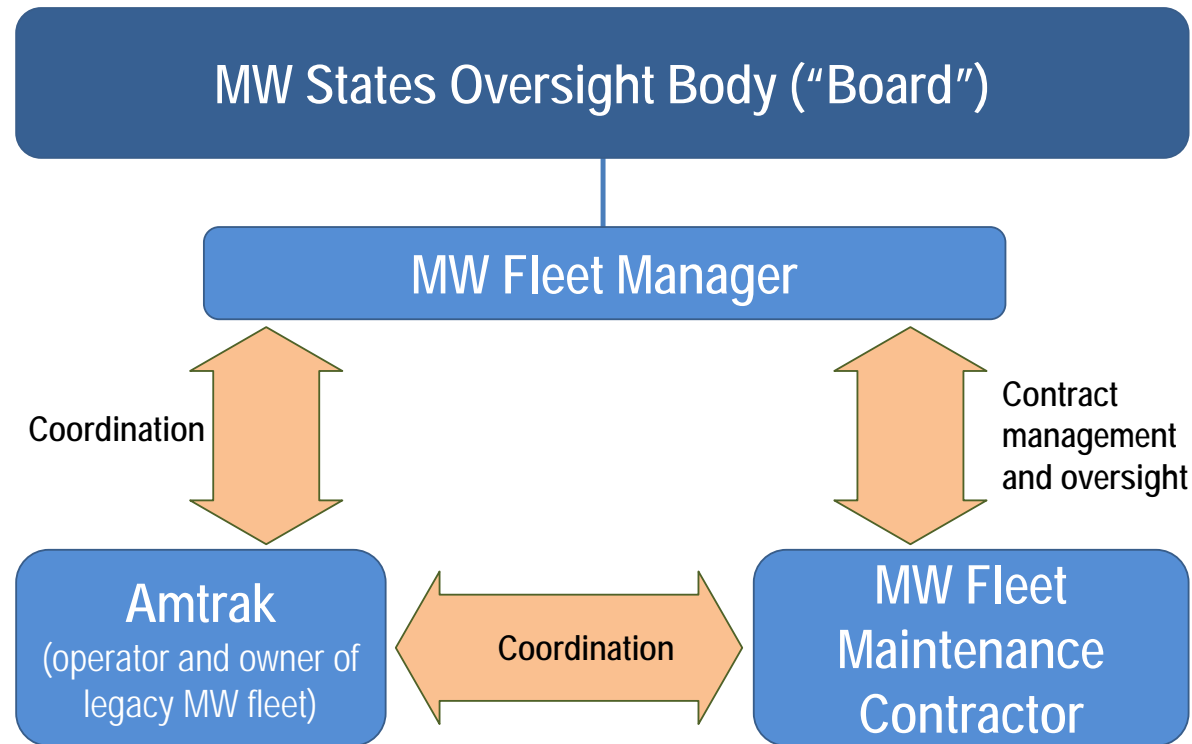
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- First time a multi-state region is challenged to own, manage, and maintain new equipment as well as manage the contractual and day-to-day interface with service operator Amtrak
  - Midwest state DOTs don't have the personnel resources to perform these functions
  - To leverage some synergies, ideally one entity should perform the management responsibilities on behalf of the states

# One multi-state equipment pool around the Chicago hub

## MIDWEST HUB CORRIDORS



# A MW Fleet Manager will oversee operations and maintenance



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## Some lessons learned....

