



Our Vision: The NGEC will provide national leadership in standardization, acquisition, and management of passenger rail equipment.

Section 305 Next Generation Corridor Equipment Pool Committee (NGEC)

Monthly Activities Report: February 28, 2022

Submitted By: Steven J Hewitt, Program Manager, S305 NGEC

Public law 110-432 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.

"The purpose of the Committee shall be to design, develop specifications for, and procure standardized next-generation corridor equipment.

(b) Functions – the Committee may –

- 1) Determine the number of different types of equipment required, considering variations in operational needs and corridor infrastructure.*
- 2) Establish a pool of equipment to be used on corridor routes funded by participating states; and*
- 3) Subject agreements between Amtrak and States, utilize services provided by Amtrak to design, maintain and remanufacture equipment."*

Executive Board

Chair: Ray Hessinger, NYSDOT

Vice Chair: George Hull, Amtrak

Secretary: John Oimoen, IDOT

Treasurer: Tim Ziethen, Amtrak

The Executive Board holds bi-weekly conference calls – Tuesdays at 11:30am Eastern

During the month of February 2022, the Executive Board met once on the 8th and again on the 25th for the 12th NGEC Annual Meeting.

Highlights, decisions, and action items from the month of February 2022 include:

- Treasurer's Report – 2-25-22 Annual Meeting:

Balance/ Spend Rate:

Total Initial Grant Amount: \$1,250,000.

Amount Spent through November 2021: \$887,902.46

Balance remaining: \$ 362,097.54

Estimated spend at current rate for the remaining grant period (through 9-30-23): \$295,967.49

Current Spend Rate per month (as info and used in calculating): \$14,093.69

Estimated Balance at the end of the Extension Period (Contingency): \$66,130.05 (this would carry the NGEN about 5 months beyond the end of the grant period)

- 2022 NGEN two-pager:

The 2022 NGEN two-page educational document was released in January and distribution has begun. To date 370 electronic copies and 125 hard copies have been distributed.

- Annual By-Law Review/Update:

The 2021 Annual Review of the NGEN By-Laws was completed in November 2021 and proposed changes were adopted by the Executive Board. The updated By-Laws were distributed to Board members and posted to the NGEN website.

The 2022 Annual review will be scheduled by the NGEN Finance and Administrative subcommittee.

- Future Funding Discussion

Explore the possibility that funding could be made available through the FRA or alternatively from Amtrak.

Continue to provide educational information on the NGEN to sister agencies (SPRC, AASHTO, Amtrak), the industry, and Congress (when requested).

Explore additional options to increase awareness of the activities and benefits derived from the work of the NGEN. Potential revision of By-Laws to include additional activities to increase public awareness.

Activities would include ongoing review and updating of PRIIA vehicle technical specifications; educational outreach to build awareness and highlight results; monitoring multi-state vehicle procurements; identifying additional lessons learned and ongoing updating of best practices.

Update – Multi-State Rail Car Procurement (provided by Caltrans) as of 2-25-22:

The Cab Carshell final design has been approved and the cab structures are in production. Remaining Cab Car FDRs are in the final submittal and review stage. Cab Car Safety Appliance documents have been sent to the FRA for review. IDOT Café Car FDRs are in the closure stage and Galley open items are being addressed.

The Cab Car Collision and Corner Post Appendix F testing is complete, and the test report is in work. The cab car compression test report review is complete, and Siemens is reviewing feedback. FAIs will continue for café and cab car subsystems.

102 cars are in production or have been produced at Siemens Sacramento Facility. Conditional Acceptance activities completed with Siemens & Caltrans for the first 6 cars. IDOT has started revenue service for the first 4 cars.

At the 2-25-22 Annual meeting a comprehensive update was provided. The presentation is available on the NGEN website and was distributed to all NGEN members.

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- Metro-North Dual Mode Locomotive Equipment as of 2-8-22:

Metro-North and Siemens continue with Preliminary Design Review. There have been 31 Preliminary Design Review documents submitted - the others are still under review. Meetings began in January and will run through March 2022.

At the 2-25-22 Annual meeting a comprehensive update was provided. The presentation is available on the NGEC website and was distributed to all NGEC members.

- Amtrak Equipment Procurement Update – as of 2-8-22:

On the Charger Locomotives (ALC 42): The first two Locomotives entered revenue service today (2-8-22)! Two more are expected to roll out next week and throughout the Spring. This is great news – showing great progress!

On the Acela – testing on the prototype continues.

On the Intercity Passenger Rail Trainset – they continue with Design Review.

At the 2-25-22 Annual meeting a comprehensive update was provided. The presentation is available on the NGEC website and was distributed to all NGEC members.

- Connecticut DOT Rail Car Procurement as of 2-28-22:

This procurement remains in the “cone of silence” period.

- VIA Rail Equipment Procurements:

On 2-25-22 at the Annual Meeting a comprehensive overview/update of the VIA Rail procurement was presented. The presentation has been posted to the NGEC website and distributed to all NGEC members.

- Document Control Progress Report for 2021 and a Look Ahead to 2022 – 2-25-22:

Working Groups Updates:

- A primer on how to successfully create and implement a TSSSA, Technical Support and Spare Supply Agreement, was created and approved by the TSC and EB on 7/27/2021. It has been renamed the ‘Guidance for Long-term Vehicle Service’.
- Best Practices WG completed the Equipment Acquisition and Ownership Recommended Practices Document #305-200. It was approved by the EB on 2/9/2021.
- Equipment Weight WG was created to determine the appropriate weights for each car type. This group has been meeting regularly.
- The Electronics on Trains WG has been working on Revision A of the DTL Hardware specification #305-919 and will be creating the DTL Software specification #305-920 next.

DMU Specifications:

- The DMU Specification Revision A was approved by the EB on 1/11/22.
- The DMU Specification was updated to Rev A with 110 changes that were approved by the Working Groups and Technical Subcommittee.

Trainset Specification:

- The Trainset Specification Revision B has been reorganized to the correct format and this version is now available.

A Look Ahead:

Metro-North Dual Mode Locomotive Specification:

- Review the Metro North Dual Mode Locomotive Specification with respect to the organization of the specification. Consider if these changes should be applied across the family of specifications. This would be an administrative change, not technical.

Car Body Materials:

- Review the use of alternate Carbody materials.
- This issue was raised during the update of the DMU specification.
- Adding additional Carbody materials will require additional information being added to the equipment specifications.

Emerging Technologies:

- Review “Emerging Technologies” for alternative propulsion options.

Review/Update NGEC References and Drawings Series 305-800 and 305-900

- NGEC 2022 Annual meeting (12th)

On 2-25-22, the NGEC held its 12th Annual Meeting. The meeting was hybrid in that it was attended in-person at the Hyatt Regency Capitol Hill, Washington DC or by webex virtually.

This was the first hybrid meeting held by the NGEC and it was a great success with approximately 109 attendees (70 in-person and 39 virtually).

Presentations were provided by Chairman, the NGEC standing subcommittees, Document Control, VIA Rail, Caltrans, IDOT, WSDOT, Amtrak (all have been distributed and are posted on the NGEC website).

NGEC Annual Meeting Special Guest: FRA Administrator Amit Bose:

The NGEC Annual Meeting attendees were very pleased to have FRA Administrator Amit Bose take the time to attend and provide remarks.

The Administrator mentioned that he had previously met with the NGEC Executive Board and that he wanted to stop by today to re-emphasize the importance of the Committee and “all the work you have done over the years.”

He noted that in the recently passed Infrastructure Investment and Jobs Act (IIJA) has a lot of focus on Rail – passenger and Freight.

He commented on the large equipment order by Amtrak that will hopefully get out soon.

He added that there is a lot of interest in the area of passenger rail and new equipment – mentioning that the Venture Cars are beginning to enter into service.

For the Administration – equipment manufacturing is an important part of the overall rail efforts. Per the Law – the key is US manufactured equipment.

The Administrator also discussed the Build Back Better proposal that will “create jobs in the US – union jobs – well- paying jobs – and a sustainable workforce in the community”.

He stressed the importance of a smooth procurement process as a highlight for OEM’s and the suppliers. There is an unprecedented opportunity presented to the industry and on time and on budget is critical.

Administrator Bose closed by emphasizing that “the FRA is ready to work with you all” and that these efforts will benefit not only the industry but also the riders.

He expressed his thanks to FRA staff and “to this Committee”.

- 2022 Election of State Board Members of the NGEC Executive Board and the Election of its Officers – Ray Hessinger:

Report/Recommendations from Nominating Committee – Mike Jenkins, Oregon DOT:

During the Annual meeting, Chairman Ray Hessinger reported that the responsibility of the nomination committee (Mike Jenkins, John Oimoen and Ray Hessinger) is to recommend nominations for the State Board Members for election to a two-year term on the Board. All Board Members have agreed that are willing to continue as Board members.

The nominating committee recommended that the current State members of the NGEN Executive Board be nominated to serve new two-year terms.

Ray Hessinger then called for a motion to re-elect the current State Board Members to new two-year terms.

Jason Biggs, Washington State DOT, offered a motion, and it was seconded by Arun Rao, Wisconsin DOT, to re-elect the current State Board members to serve new two-year terms.

Ray called for discussion, with none forthcoming, he called for the yeas and nays and was able to determine that consensus was achieved, and the current State Board Members are re-elected to two-year terms effective immediately.

With the Board established (Amtrak and FRA representation will also remain the same) Ray called for a nomination of the current slate of officers to remain in their current positions for new two-year terms.

On a motion offered by Jason Orthner, North Carolina DOT, and a second by Arun Rao, Wisconsin DOT, and no objections offered, Ray Hessinger determined that consensus had been achieved and the current officers have been elected to new two-year terms effective immediately.

The following State Board Members were re-elected to new two-year terms effective immediately:

Ray Hessinger, NYSDOT
 John Oimoen, IDOT
 Amanda Martin, Iowa DOT
 Jason Orthner, NCDOT
 Ron Pate, WSDOT
 Arun Rao, WisDOT
 Troy Hughes, MODOT
 Kyle Gradinger, Caltrans
 Mike Jenkins, Oregon DOT
 Brian Beeler, NNEPRA for Maine DOT

Also continuing as their agencies' representatives are:

Jeff Gordon, FRA
 George Hull, Amtrak
 Tim Ziethen, Amtrak

Election of Officers:

The following Officers were re-elected/re-appointed to serve new two-year terms effective immediately:

Ray Hessinger, Chairman
 George Hull, Vice Chair
 John Oimoen, Secretary
 Tim Ziethen, Treasurer

The terms of office for the Board members and officers begin 2-28-22 and run through the 2024 Annual Meeting.

Technical subcommittee

Chair: George Hull, Amtrak
Vice Chair: Joe Paul, Amtrak

The Technical subcommittee holds bi-weekly conference calls on Thursdays at 3:00pm Eastern

During the month of February 2022, the NGENC Technical Subcommittee met once – on the 3rd and also participated in the 2-25-22 NGENC Annual Meeting.

Key decisions and action item updates from the month of January 2022, included:

- During the Annual meeting, NGENC Technical subcommittee chair provided a comprehensive review of the subcommittee's activities throughout 2021 and looked ahead to 2022.

- Backgrounder educational document:

The 2022 NGENC two-page educational document/handout is now available in electronic or hard copy versions. Requests should be sent to Steve Hewitt at shewitt109@aol.com
To date 370 electronic copies and 125 hard copies have been distributed.

- Document Control Update as of 2-25-22:

See the update provided in the Executive Board section of this report and the Annual Meeting full presentation that is posted to the website.

Update: Electronics on Trains working group activities:

Team Leader David Brabb resigned his position due to a job change. Tammy Krause, Document Control. The team met in January. A new team leader has not been named but should be in place by the next call. Tammy is asked to ensure that NGENC procedures are being followed.

- Multi-State Car Procurement - Caltrans (Lead State): Progress reports from the lead state on the PRIIA multi-state car procurement is provided on each technical subcommittee call and each Executive Board call.

See the update provided in the Executive Board section of this report and the Annual Meeting full presentation that is posted to the website.

- Metro North Dual Mode Locomotive Procurement:

See the update provided in the Executive Board section of this report.

- Amtrak Equipment Procurement Updates: Progress reports are provided by AMTRAK CMO and NGENC Vice Chair George Hull on a regular basis.

See the update provided in the Executive Board section of this report and the Annual Meeting full presentation that is posted to the website.

- Connecticut DOT Rail Car Procurement:

As of 2-28-22 this procurement remains in the "cone of silence".

- University of Nebraska study on High Speed wireless technology as of 2-3-22:

They are studying the properties and capabilities of the 160MHz RF band, and its suitability for different rail applications.

As a part of implementing a computer model for simulations of different sceneries for 160MHz, they have designed and implemented an end-to-end transceiver model and have also evaluated a number of path loss prediction models for use in the transceiver design.

Before the holidays, the focus was on efforts on a single-carrier transceiver architecture. They completed that design effort and evaluated the design for its performance using several different channel models.

They are currently working on an OFDM-based transceiver architecture, and plan to conduct an evaluation of OFDM design as well. After this, they will have a complete model for different application evaluations.

For any questions or more information, please contact Hamid Sharif-Kashani at hamidSharif@UNL.edu.

- Working Group on Specification Weight Issues as of 2-3-22:

On 1-25-22, the working group reconvened after several months in hiatus.

Jeff Gordon prepared a DRAFT summary document with collected comments received and the topics and general consensus.

There were 17 participants on the last call which is the most ever!

Jeff Gordon distributed the draft after the discussion, and he is working on the comments.

The next meeting is yet to be scheduled but was expected to be the week of 2-28-22.

The Finance and Administrative Subcommittee

Chair: Tim Ziethen, Amtrak

Vice Chair: Brian Beeler II, NNEPRA for Maine DOT

Second Vice Chair: John Oimoen, Illinois DOT

The Finance and Administrative subcommittee (FASC) will hold a conference call every four weeks on Wednesdays at 3:00pm Eastern.

During the Month of February 2022, the Finance and Administrative Subcommittee met on 2-2-22:

- Treasurer's Report :

Total Initial Grant Amount: \$1,250,000.

Amount Spent through November 2021: \$887,902.46

Balance remaining: \$ 362,097.54

Estimated spend at current rate for the remaining grant period (through 9-30-23): \$295,967.49

Current Spend Rate per month (as info and used in calculating): \$14,093.69

Estimated Balance at the end of the Extension Period (Contingency): \$66,130.05 (this would carry the NGEN about 5 months beyond the end of the grant period)

Follow up Discussion regarding future funding options beyond 9-30-2023:

Mike Murray, FRA, had reported to the Executive Board on 10-5-21 that the FRA is looking at options and briefing leadership in the Office of Railroad Policy and Development. This will take a couple of months and Mike suggested that the Board not carry this as an agenda item for the bi-weekly meetings as it will take some time. When he has more information, he will let the Board know. Ray Hessinger suggested, at that time, that this information be reported to the FASC on its next call (today) and that the FASC keep track of it.

As of 2-25-22, there has been no decision on FRA's review of potential options for future funding.

- Conveying the message as of 2-25-22:

The 2022 NGEN two-pager is available as reported in the Executive Board section of this report and 370 electronic or "soft" copies have been distributed. 125 hard copies have also been distributed.

- Quarterly Grant Agreement Progress Report to FRA

All reports this year have been submitted on time. The next report will be for the period ending 3-31-22 and will be due to FRA on 4-29-22.

- Follow ups on developing a plan to increase NGEC awareness as of 1-25-22:

Tim Ziethen reported that he has had another follow-up conversation with Michael Alexis, Amtrak Deputy General Counsel, and an exchange of emails with him.

Michael has been assigned to the NGEC for any legal questions or related issues.

Michael provided Tim Ziethen with guidance on issues related to the NGEC's ability to take steps to increase awareness of the Committee and the work that it does.

In general, the guidance is that posting factual information on the website is permitted providing that the Committee follows Amtrak contractor promotion policies which the Committee has been following. For posting on social media, again, the NGEC would be permitted to do it as long as it follows the Amtrak policies. None of this is new, the NGEC has always lived up to these policies.

Issuing Press releases would also be permissible as long as it transmits simply factual information.

Using paid advertising or attending trade shows would require By-Law changes and there would be an issue of spending funds for these activities as they would need to be paid outside the grant.

As noted previously, the NGEC should not proactively communicate with Congress due to "lobbying" issues but can respond with factual information in compliance with Amtrak contractor promotion policy upon request.

NGEC Specification Review Panel(s):

For each PRIIA NGEC specification a Review Panel has been established to compare the specification (as developed by the technical subcommittee) against a Requirements document previously adopted by the Executive Board. As the Review Panel completes its work, it prepares a report with recommendations. This report is submitted to the Executive Board for its consideration. Once accepted by the Board, the specification is subsequently formally adopted by the Executive Board. As part of the Document Control process, any proposed revisions to a PRIIA NGEC specification must go through the Review Panel process as well. At such times, the Review Panel, previously established for a specification, is re-convened by the Executive Board chair.

The DMU Specification Review panel met on 12-13-21 and approved the Review Panel Report with Recommendations for submittal to the NGEC Executive Board. On 12-28-21, the Board was given an overview of the report and on 1-11-22 the Board accepted the Report and its Recommendations and adopted DMU Specification Revision A.

The Review panels did not meet in February 2022.