



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: June 30, 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 June 2022, the Executive Board met twice - on the 14th and the 28th

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

Treasurer's Report and Finance and Administrative Sub-committee:

Tim Ziethen continues to be on medical leave, but provided Steve Hewitt with the following update through April 2022:

Balance/ Spend Rate:

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

Amount Spent through April \$912,469.91

Balance remaining: \$ 337,530

Estimated Spend at current rate for balance of the Grant – \$231,522.22
 Current Spend Rate per month (as info and used in calculating): \$13,618.95
 Estimated Balance at the end of the Extension Period (Contingency): \$106,007.87

Tim Ziethen is expected back July 6th and that would mean he should be able to Chair the next FASC call (7-20-22) and a financial update will be provided.

- Status – Developing SOW for Website Refresh

On June 28th Steve Hewitt reported to the Executive Board that AASHTO has put out the RFP for the NGEC website refresh.

Responses are due to AASHTO 6-30-22.

This week (Week of June 26, 2022) AASHTO responded to questions from several potential bidders.

The performance period is to be 8-1-22 thru 12-31-22.

- Status – Seeking new funding for the NGEC:

On June 28, 2022, NGEC Executive Board Chair, Ray Hessinger, reported that the States for Passenger Rail Coalition (SPRC) remains a strong advocate for the NGEC recognizing its value to the states.

Funding the NGEC is included in the SPRC Policy Principles which have been sent to congressional staff and is posted on the SPRC website.

SPRC put in a request for a 2023 Appropriations for the NGEC, but, earlier this week, a draft appropriations bill from the House THUD subcommittee did not include funding for the NGEC.

Current SPRC Chair, Arun Rao, plans to reach out to Paul Nissenbaum, FRA, to raise his concerns with the NGEC's lack of funding. While SPRC supports the NGEC's efforts to apply for a CRISI Grant, he is concerned about the timing and also believes the NGEC should be funded through an appropriation or a Grant rather than through the CRISI discretionary grant program.

Ray also noted that Tim Ziethen's extended absence (NGEC Treasurer and Chair of the FASC) over the past several months has delayed efforts for the NGEC to develop a CRISI Grant application. Amtrak will be the applicant, and input from Tim Ziethen and the Amtrak Grants is essential.

On this point, Ray Hessinger noted that he and Steve Hewitt have been talking about the fact that there is no other Amtrak person assigned to the FASC, and with Tim being out two or three months there has been no way to move forward with the work of this subcommittee. Ray and Steve are talking about proposing a By-Laws change that would require that that Amtrak hold the position of Chair and one of the two Vice Chairs of the FASC.

Currently Amtrak holds the position of Chair, but the two Vice Chairs are state representatives. This has proven to work well only when the chair is available.

Steve Hewitt noted that without a second Amtrak representative, the FASC cannot even have a quorum on its calls, so it is even more problematic not having a back up to Tim.

Steve also commented that this is a good time to look at making a change to the By-Laws as it is approaching the time when the FASC would usually start the annual By-Laws review. This year it already expects to recommend a change that would expand the NGEC's approved activities to raise its visibility. Adding in a change regarding FASC officer requirements at this time would be appropriate.

Of course, the issue remains that it is important to have Tim back as the By-Law activities must begin in the FASC.

John Oimoen, NGEC Board Secretary and second Vice Chair of the FASC, suggested that he and Steve Hewitt get together to discuss proposed changes to be developed. John suggested the call take place after

the July 4th holidays. Steve agreed, and added that the FASC process has been that John and Steve do the initial annual By-Laws review and present recommendations to the FASC including proposed changes.

Steve asked John to provide him with some dates and times he is available for a call and Steve will schedule it.

- 2022 NGEC two-pager:

The 2022 NGEC two-page educational document was released in January and distribution has begun. To date 450 electronic copies and 125 hard copies have been distributed.

- Annual By-Law Review/Update:

The 2021 Annual Review of the NGEC 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 NGEC website.

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

As noted above, this process will begin soon and will include potential changes to allowable activities and a change in the FASC structure.

- Update – Multi-State Rail Car Procurement (provided by Caltrans) as of 6-28-22:

The Cab Carshell final design has been approved and the cab cars 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, and the Cab Car Clearance information has been approved by Amtrak. IDOT Café Car FDRs are in the closure stage with Galley open items expected to close in June.

The Cab Car Collision and Corner Post Appendix F testing is complete, and the test report has been reviewed and Siemens is addressing the final comments. The revised cab car Compression test report has also been reviewed and comments from FRA have been addressed. The Cab Car locking luggage tower FAI is scheduled for week of June 13.

110 cars are in production or have been produced at Siemens Sacramento Facility. Revenue Service relevant FMIs are in progress and open items related to Conditional Acceptance are being addressed. IDOT coaches are currently in revenue service and Caltrans is planning revenue start once necessary agreements are in place.

- Metro-North Dual Mode Locomotive Equipment as of 6-14-22:

Metro-North and Siemens have closed the Preliminary Design Review (PDR) stage, and have moved to Final Design Review (FDR). Siemens has started the process of submitting FDR documents to Metro-North and they are under review.

- Amtrak Equipment Procurement Update – as of 6-14-22:

On the Acela 21: Work continues on testing and vehicle qualifications.

On the Charger Locomotive: Amtrak continues to get units from Siemens. There are 8 in service on the Empire Builder and the City of New Orleans.

On the Intercity Trainset (ICT): Preliminary Design Review is complete, and they are starting on Intermediate Design Review and expect a hard mock-up in July.

- Connecticut DOT Rail Car Procurement as of 6-14-22:

Marci Petterson reported to the Technical subcommittee on 6-9-22 that a Pre-proposal meeting was scheduled for 6-10-22. Marci had previously announced (on 5-12-22) that Connecticut's Initial Coach Procurement RFP was rescinded, and a new RFP was released on 5-11-22.

- 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 – 6-28-22:

The Bi-Level Specification proposed update has received no DCRs to date. As a result, Steve Hewitt has sent out several e-mails giving everyone a chance to submit DCRs by 6/30/2022. Tammy will be on vacation until 7-12-22. As a result, the deadline for submitting DCRs has been extended to 7-11-22. On 6-29-22, Steve Hewitt sent a reminder to all NGEC members about getting the DCRs in and announcing the new deadline.

Tammy Krause provided an updated PRIIA documents list to Steve Hewitt, and it has been sent to AASHTO for posting to the website.

Tammy is working with the Technical Writer on the update to PRIIA document 305-100, specifically the specification review groups.

The Carbody Materials working group meeting of June 22 was cancelled and the next meeting is scheduled for July 6. They are continuing to work on Chapter 4 – Carbody, of the Single Level Specification.

The Electronics on Trains working group will be meeting on Tuesday July 12.

Status of 2022 Priorities as of 6-28-22:

Priority Area: Review/Update the Bi-level specification currently in Revision C.4. With Amtrak looking at using some of the funding from the new IIJA for its western fleet, it makes sense for the NGEC to review and update the Bi-Level car specification.

Action as of 6-28-22: Bi-Level Car Specification Review/Update is underway. A new DCR form has been adopted and is now being used. As of 6-28-22, no DCRs have been received. A deadline for DCR submittals had been set for COB 6-30-22. Steve Hewitt will notify NGEC members that this deadline has been extended to COB on 7-11-22.

Priority Area: Review the car body materials issue from a broader perspective for all NGEC equipment not only DMUs. Ray would like to take a look at developing a consistent approach for all of the NGEC vehicle specifications.

Action as of 6-28-22: The Carbody Materials Working Group held its first meeting on 5-11-22. The team leader is Michael Gill, SNC Lavalin/Atkins. The next meeting is scheduled for 7-6-22.

Priority Area: Review “emerging technologies”: On the last technical subcommittee call (12-9-21) the topic of emerging technologies for propulsion was raised. Ray believes that the technical subcommittee should conduct a scan of the industry regarding emerging technologies for propulsion and how they relate to the NGEC.

Action as of 6-14-22: Dave Warner gave a zero emissions presentation during the Annual Meeting and followed that up with a presentation to the Executive Board on APTA's effort to develop Alternate Fuel Safety Standards

Update: On 6-28-22, Dave Warner provided the following:

The most recent meeting was held last Tuesday (6/21) as APTA continues work on the whitepaper which is aimed at determining criteria for FRA safety compliance. The hazard analysis of battery-electric requirements has been drafted, and is in the group-editing process. Hazard analysis of hydrogen requirements will begin later this month, focusing on the hydrogen handling and storage and use. All of the

battery hazard analyses are also applicable, since a hydrogen fuel cell-powered vehicle is really a battery powered vehicle which carries its fuel.

Members from Sandia National Laboratory have joined the working group to assist with the hydrogen pieces of the puzzle.

The document has been placed under the PRESS program, which should facilitate the administrative efforts. The long-term goal is to develop a standard by 2026.

Priority Area: Review and consider using the Metro-North Dual Mode Locomotive Specification organizational changes to determine if they should be adopted by the NGEN and applied across the board to all NGEN specifications. This would be an administrative change not impacting technical content of any of the specifications and could be resolved by the Executive Board.

Action as of 6-14-22 -This is included in the DCM action Plan and will likely follow the Bi-Level Car Specification update.

Priority Area: Review/update NGEN Reference and Drawings series 305-900 and 305-800.

Action as of 6-14-22: This item is on the DCM action plan for 2022 – no activity on reviewing the reference documents per se, but Tammy Krause, Document Control Manager will be working with Jeff Gordon to create a new reference specification to address the Volpe Center information on CEM.

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 June 2022, the NGEN Technical Subcommittee met once – on the 9th.

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

- Backgrounder educational document:

The 2022 NGEN 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 450 electronic copies and 125 hard copies have been distributed.

- Document Control Update as of 6-28-22:

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

- Multi-State Car Procurement - Caltrans (Lead State) update as of 6-28-22:

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

- Metro North Dual Mode Locomotive Procurement as of 6-28-22:

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

- Amtrak Equipment Procurement Updates as of 6-28-22:

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

- Connecticut DOT Rail Car Procurement as of 6-28-22:

- See the update provided in the Executive Board section of this report.
- University of Nebraska study on High Speed wireless technology as of 5-12-22:

From Hamid Sharif:

In our study, we have been exploring the properties and capabilities of the 160 MHz RF band, and its suitability for a variety of applications, including Wireless Digital Trainline. This includes a key factor of investigating if 160MHz can alleviate the pressure on the 220MHz.

In this process, we designed and evaluated both a single-carrier transceiver architecture and an OFDM-based transceiver architecture, and conducted evaluations of both designs.

This quarter we expanded on our efforts by incorporating Forward Error Correction (FEC) Coding into these architectures. FEC is a way to improve the receive-side bit error rate, and thus communication distance, by sacrificing throughput capacity. The released throughput is instead used to carry additional information that the transmitter inserts into the data stream.

We plan to publish our results this summer.

Please contact Hamid Sharif @ University of Nebraska-Lincoln for any additional information.

- Working Group on Specification Weight Issues as of 6-28-22:

The NGEN Vehicle weight Working Group had its 12th meeting on May 11 at 11am ET.

There were 9 members in attendance.

The group discussed ways to reconcile how P2 forces are characterized in the various NGEN specifications.

Two versions of the P2 formula are in general use. The NGEN specifications do not use a common formula, nor do they use common values for certain of the input parameters related to track stiffness and damping.

On the last call, the group requested that a sensitivity study be performed to assess the impact of these parameters on the calculated P2 forces.

This was done and we learned that some of the parameters have very little influence on the result and the parameter affecting P2 the most is the value chosen for the rail dip angle.

Additional work will be done on this, and the draft write-up being prepared by the group will be revised based on these discussions.

Members also suggested that the procedures described in the APTA Recommended Practice (RP) on Truck Design be referenced in the NGEN Specifications as it includes comprehensive guidance on how to calculate the unsprung mass term used in the equation.

The APTA RP also identifies the British Rail version of the P2 formula as the current best practice. The Working Group will recommend this version as the standard for use in the NGEN Specifications.

The next meeting of the Working Group will be during the week of June 6. A poll has been distributed to the members to assist in selecting the meeting date and time.

The scheduled Working Group meeting for 6-9-22 was canceled due to a schedule conflict. Jeff Gordon is looking at dates for the next meeting.

If interested in participating on this working group, contact Jeff Gordon at Jeffrey.gordon@dot.gov or Steve Hewitt at shewitt109@aol.com

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 June 2022, the Finance and Administrative Subcommittee did not meet due to the Chair being out on medical leave. The following is a status of activities to date and anticipated activities:

- Treasurer's Report and Finance and Administrative Sub-committee:

Balance/ Spend Rate:

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

Amount Spent through April \$912,469.91

Balance remaining: \$ 337,530

Estimated Spend at current rate for balance of the Grant – \$231,522.22

Current Spend Rate per month (as info and used in calculating): \$13,618.95

Estimated Balance at the end of the Extension Period (Contingency): \$106,007.87

Tim Ziethen is expected back July 6th and that would mean he should be able to Chair the next FASC call (7-20-22) and a financial update will be provided.

- Exploring Funding Options

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

- Conveying the message as of 6-28-22:

The 2022 NGEC two-pager is available as reported in the Executive Board section of this report and 450 electronic or "soft" copies have been distributed. 125 hard copies have also been distributed.

Along with the two-pager, the website refresh will look at ways to increase NGEC visibility.

- Quarterly Grant Agreement Progress Report to FRA

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

The next report will be due to FRA by 7-31-22.

- Follow ups on further plans to increase NGEC awareness as of 4-30-22:

The web site refresh is moving forward.

The RFP has been put out by AASHTO with responses due on 6-30-22.

As reported in the Executive Board section of this report, A review of the By-Laws will begin with a focus on adding additional allowable activities as suggested below and with a look at revising the FASC structure to include a Vice Chair position that will be held by an Amtrak representative. Details on this topic can be found in the Executive Board section of this report.

Previously reported:

Tim Ziethen had several discussions 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.

NGEC Specification Review Panels did not meet during the month of June 2022.

Milestones – Quarterly update (April 1, 2022, through June 30, 2022)

Bi-weekly meetings:

Throughout the quarter, the NGEC Executive Board and the Technical subcommittee held bi-weekly conference calls with exceptions as noted due to schedule conflicts. The Finance and Administrative subcommittee met once during the quarter (in April) due to the Chair and NGEC Treasurer medical leave. All business of the Board and the Technical subcommittee continued to progress throughout the quarter. Some of the business of the FASC was put on hold and a By-Laws change is being developed to provide a vice chair position be held by Amtrak to ensure there is a backup to the Chair in a position to act on Financial aspects related to Amtrak (the NGEC grantee).

Note: FASC business that could be continue was - such as developing and releasing an RFP for a website refresh continued. The RFP is out with responses due to AASHTO on 6-30-22 as well as a start of the Annual by-Laws Review.

Monthly meetings:

During the quarter, the Finance and Administrative Subcommittee (FASC) met once due to the absence of the Chair and Treasurer. The work of the subcommittee progressed as noted above, with some items on hold.

Dissemination of educational/informational pieces:

The 2022 two-page educational/backgrounder was released in February 2022. To date, around 575 hard and soft versions have been distributed to NGEC members and various associations.

The RFP for a website refresh has been put out. AASHTO has responded to questions from several potential bidders and responses to the RFP are due to AASHTO by 6-30-22. The performance period is 8-1-22 to 12-31-22.

NGEC Annual Meeting:

The (12th) Annual Meeting took place virtually on 2-22-22 and was the NGEC's first Hybrid (in-person and virtual) meeting. The meeting was attended by approximately 114 members.

The NGEC's 2023 Annual Meeting (the 13th) will take place as a hybrid meeting in early February 2023 at the Hyatt Regency Hotel on the Hill, Washington, DC.

Annual Review of NGEC By-Laws and Operating Procedures:

The 2021 annual By-Law review was completed in November 2021. The review began within the FASC and was ultimately adopted by the Executive Board with all recommended changes approved.

The 2022 By-Laws review will be conducted in the third quarter. A review has begun with NGEC program Manager Steve Hewitt and NGEC Secretary and second Vice Chair of FASC, John Oimoen looking at potential changes to propose to the FASC.

Grant reporting:

As required by the Grant Agreement, Amtrak will submit a quarterly report to the FRA. Information provided in the monthly NGEC Activities reports for the quarter, prepared by the NGEC Manager, will be utilized as a basis for the Quarterly Reports to the FRA.

All quarterly reports to date have been submitted on time to FRA.

The second FFY 2022 quarterly progress report to FRA was submitted on time on 4-28-22.

The next quarterly report for the period covering 4-1-22 to 6-30-22 is due to FRA by 7-31-22.

Fiscal and contractual actions:

During the April 1 to June 30, 2017, quarter, the Finance and Administrative subcommittee, and, subsequently, the Executive Board, adopted a motion that expressed the intent to extend the contracts of AASHTO and the subcontracts coordinated with the Grant Agreement and consistent with the budget and SOW. Currently, Amtrak and AASHTO are in the process of developing their contract extension and, following its execution, AASHTO has been directed to do the same with the sub-contracts identified in the SOW and noted in the adopted motion inserted below.

"As was intended in past NGEC budget approvals and to ensure compliance with the Audit of Grant Agreement of March 27, 2013, and the NGEC's updated Procedure of Establishing Contract Support adopted August 6, 2013, the NGEC authorizes Amtrak to contract with AASHTO for administrative support services as well as subsequent sub-contracts per the statement of work for entities such as; with Hewitt Consulting for Manager of Support Services, and with SalciConsult for Specification Consultant services. In addition, with the Federal Railroad Administration's June 8th, 2015, approval of the NGEC's Supplemental Statement of Work and related budget extension through September 30, 2017, and its subsequent approval of the Statement of Work and Budget included in the Grant Agreement executed on October 26, 2016 for the period beginning October 1, 2016 through September 30, 2019, Amtrak is authorized to extend its agreement with AASHTO and AASHTO's sub-consultants in accordance with the Statement of Work."

Adopted by the NGEC Executive Board on 6-6-17.

On 9-26-17, AASHTO and Amtrak executed a contract extension for NGEC Support services to continue from 10-1-17 through 9-30-19. On 9-27-17 AASHTO executed a contract modification with Hewitt Consulting – (Steve Hewitt) extending the NGEC Manager's contract for the period 10-1-17 through 9-30-19.

In the fourth quarter, 2017 – AASHTO and Amtrak executed a contract extension for technical support (spec writing) with Casamar – extending the contract through 9-30-19.

During the fourth quarter, NGEC Revision Control Coordinator (RCC), Tammy Krause, Amtrak, accepted the separation agreement and announced her departure to the NGEC Executive Board – effective 12-31-17. To fill the void created by this change, Amtrak has temporarily assigned these responsibilities to Michael Burshtin, Amtrak, and has begun taking steps needed to potentially subcontract this work similarly to how the other NGEC support services are provided. The SOW was revised by the NGEC Executive Board during this quarter to provide the flexibility to have the duties of the RCC conducted in house – Amtrak – or be subcontracted to a consultant. The Amtrak and FRA grants offices are reviewing the proposed change and, if approved, a sole source contract will be executed per NGEC Contract Management procedures.

As of 3-31-18, and as noted previously in this quarterly report, the NGEC Grant Agreement SOW revisions have been submitted to FRA and are under review. It is anticipated that the revisions will be approved and executed in April 2018. Simultaneously, the actions necessary to execute a contract for the Document Control Manager (DCM) have progressed with a revised SOW and budget having been submitted by the prospective sole source contractor for review and approval of the NGEC Treasurer and the Technical Subcommittee Chair who will be responsible for managing the work of the DCM.

During the quarter ending June 30, 2018, per the NGEC process, AASHTO executed a contract with TLK Associates, LLC (Tammy Krause) to perform the Document Control Management responsibilities, as identified in the SOW and budget, and as previously approved by the NGEC Executive Board.

During the quarter ending September 30, 2018, the FRA and Amtrak executed a no-cost 12-month extension (as approved by the NGEC Executive Board and formally requested by Amtrak) of the NGEC Grant Agreement. This extends the grant performance period to 9-30-2020.

Subsequently, on 5-8-19 AASHTO executed contract modification #2 with Hewitt Consulting – (Steve Hewitt) extending the NGEC Manager's contract for the period 10-1-19 through 9-30-20.

In December, the Executive Board Chairman approved a contract modification extending the document control manager's contract through 9-30-20.

During the quarter ending June 30, 2019, the NGEC Finance and Administrative subcommittee, through its chair, (the NGEC Treasurer) clarified with Amtrak Grants and FRA Grants that the NGEC would be eligible for a further no-cost extension beyond the current grant period end date of 9-30-2020.

In the quarter ending December 31, 2019, the FRA confirmed that a no-cost NGEC grant agreement extension can be for multiple years and has recommended that Amtrak (and the NGEC) make the formal request by July ,2019 to fit within the window for extension requests (July -September). The NGEC Executive Board agreed with the FASC recommendation that the grant agreement extension be for a 36-month period (10-1-2020 through 9-30-2023) and will formalized its request in January 2020.

In January 2020, Amtrak submitted the formal request (GARF) for a 36-month no-cost extension. It is currently in the review process at FRA with the intent being to approve/execute the agreement extension sometime in May 2020.

As of 6-30-20 – the FRA is reviewing the grant extension request with consideration of approval anticipated to occur soon.

As of this quarter, (ending 6-30-20) all NGEC subcontractor/consultant contracts are current.

On 9-16-20, the FASC Chairman announced that the FRA and Amtrak had approved and executed a 36 month – no cost NGEC grant agreement extension. This would extend the NGEC grant agreement through September 30, 2023. The scope and activities identified in the grant agreement remain the same and the work of the committee will continue as described there-in.

As of 9-30-20 – the subcontractor/consultant contracts are current. As of the end of business on 9-30-20, they will need to be extended coordinated with the 36-month extension. The first step in this process is for Amtrak and AASHTO to extend the AASHTO contract for the 36-month period. AASHTO would, in turn, extend the subcontractors contracts for the same period as per the motion adopted by the NGEC Executive Board on 6-6-2017 and per Chairman Ray Hessinger's instructions during the Executive Board web conference held on 9-22-20.

In October 2020, all contract extensions (Amtrak/AASHTO) and ASSHTO/Hewitt, AASHTO/Krause and AASHTO/Casamar) were executed and will run through 9-30-23.

As of 9-30-21, all contracts are up to date and active.

As of 12-31-21 all contracts are up to date and active.

As of 3-31-22 all contracts are up to date and active.

As of 6-30-22 all contracts are up to date and active.

Review/Update of NGEC Specifications (Document Control):

This activity is ongoing:

Activities specific to this quarter:

During this quarter, Document Control Manager Tammy Krause has continued the review of the Bi-Level specification and is using the updated the Document Change Request form. The deadline for submitting DCRs for the Bi-Level car specification are due to Tammy Krause on 7-11-22.

The carbody materials working group has been established and organized with a team leader and has held one meeting during this quarter.

Dave Warner, Industry member (STV Inc.) and NGEC member "emeritus" gave a presentation on emerging zero emission technologies and will provide the Executive Board with a presentation on the activities of APTA in this area.

In this quarter, Mr. Warner provided a follow-up report to the Executive Board and is continuing to monitor the activities of APTA on this topic.

Status of 2022 Priorities as of 6-28-22:

Priority Area: Review/Update the Bi-level specification currently in Revision C.4. With Amtrak looking at using some of the funding from the new IIJA for its western fleet, it makes sense for the NGEC to review and update the Bi-Level car specification.

Action as of 6-28-22: Bi-Level Car Specification Review/Update is underway. A new DCR form has been adopted and is now being used. As of 6-28-22, no DCRs have been received. A deadline for DCR submittals had been set for COB 6-30-22. Steve Hewitt will notify NGEC members that this deadline has been extended to COB on 7-11-22.

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Action as of 6-14-22: Dave Warner gave a zero emissions presentation during the Annual Meeting and followed that up with a presentation to the Executive Board on APTA's effort to develop Alternate Fuel Safety Standards

Update: On 6-28-22, Dave Warner provided the following:

The most recent meeting was held last Tuesday (6/21) as APTA continues work on the whitepaper which is aimed at determining criteria for FRA safety compliance. The hazard analysis of battery-electric requirements has been drafted, and is in the group-editing process. Hazard analysis of hydrogen requirements will begin later this month, focusing on the hydrogen handling and storage and use. All of the battery hazard analyses are also applicable, since a hydrogen fuel cell-powered vehicle is really a battery powered vehicle which carries its fuel.

Members from Sandia National Laboratory have joined the working group to assist with the hydrogen pieces of the puzzle.

The document has been placed under the PRESS program, which should facilitate the administrative efforts. The long-term goal is to develop a standard by 2026.

Priority Area: Review and consider using the Metro-North Dual Mode Locomotive Specification organizational changes to determine if they should be adopted by the NGEC and applied across the board to all NGEC specifications. This would be an administrative change not impacting technical content of any of the specifications and could be resolved by the Executive Board.

Action as of 6-14-22 -This is included in the DCM action Plan and will likely follow the Bi-Level Car Specification update.

Priority Area: Review/update NGEC Reference and Drawings series 305-900 and 305-800.

Action as of 6-14-22: This item is on the DCM action plan for 2022 – no activity on reviewing the reference documents per se, but Tammy Krause, Document Control Manager will be working with Jeff Gordon to create a new reference specification to address the Volpe Center information on CEM.