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

## Section 305 Next Generation Corridor Equipment Pool Committee (NGEC)

**Monthly Activities Report: October 31, 2023**

**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**

**Effective 8-8-23, the Executive Board will hold web- conference calls every 4 weeks on – Tuesdays at 11:30am Eastern.**

- During the month of October 2023, the Executive Board met twice - on the 3<sup>rd</sup> and the 31<sup>st</sup>.

Highlights, decisions, and action items status updates from the month of October include:

Treasurer's Report – 10-31-23:

- On 10-31-23, Tim Ziethen reported:

### **Balance/Spend Rate Through August 2023**

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

Expenses incurred through August 2023: \$1,247,141.37

Balance remaining: \$2,858.63.

Estimated spending, at current rate, for balance of the Grant: \$15,025.80

Current Spend Rate per month (as info and used in calculating): \$15,025.80.

Estimated Balance at the end of the Grant Period: (\$12,167.17) over target.

**Status updates provided by Tim Ziethen on 10-31-23:**

- Amtrak submitted the 4<sup>th</sup> Quarter NGEC 305 Committee report to the FRA.
- Amtrak has extended the period of performance under contract with AASHTO – Strat is point of contact.
- Financials – Grant is exhausted (accrual basis) however Amtrak needs to submit past invoices for reimbursement using normal process.
- Amtrak AOP budget (\$260,000) is approved for NGEC 305 Committee – continued work funded per work plan.
- CRISI grant not awarded – Amtrak will request feedback from FRA.
- 6 mos. No-Cost extension approved – allowing billing driven by delay in invoicing (normal).
- Update to By-Laws

Previously confirmed no changes needed from Amtrak Legal – waiting for final confirmation.

**Status – Contract Modifications for the Sub-Contractors:**

Tim also noted that once the PO is executed between Amtrak and AASHTO, the contract modifications extending the sub-contractor agreements through 9-30-24 can be executed by AASHTO.

- 2023 NGEC two-pager:

The NGEC 2023 backgrounder/educational document was released in January and formally introduced during the Annual Meeting. To date 354 copies have been distributed (hard and soft).

- The FASC has begun the process of developing the 2024 version of the two-pager and is reviewing recommendations provided by John Oimoen, IDOT, and Steve Hewitt, NGEC Manager. On 11-8-23 further changes recommendations will be discussed by the FASC.
- Multi-State Rail Car Procurement as of 10-31-23 (provided by Caltrans):

The remaining Cab Car FDR items are in the closure stage with all subsystems approved and final submittals in work. The Cab Car MCAT simulation report has been approved by the states and the FRA. IDOT Café Car system level FDR reviews are complete and the requested Café Car MCAT simulations have also been submitted to the FRA for review.

The Cab Car Complete FAI and FRA sample car inspection occurred in July with open items in review and closure.

137 cars are in production or have been produced at Siemens Sacramento Facility. IDOT coaches are currently in revenue service and Caltrans is preparing for crew familiarization and shakedown testing of the first trainset pending completion of maintainer safety training.

- Metro-North Dual Mode Locomotive Equipment as of 10-12-23:

Ray Hessinger presented the following update to the Executive Board as previously reported to the Technical Subcommittee on 10-12-23:

Metro North and Siemens conducted a First Article Inspection for the energy storage cubicle, the switchgear-and 3rd rail cubicle, the battery rack and 4 delta FAIs for changed cabinets on-site in Sacramento.

Metro North and Siemens agreed upon test values for a shock & vibration test for the 3rd rail current collector shoe mechanism.

MNR locomotive #301 is ready for low voltage cable tray installation (Q23) and is progressing in Final Assembly and MNR locomotive #302 is progressing per the DCS.

The FAI for the MNR traction converter was performed and the component was dispositioned as allowed to ship with minor open items.

- Amtrak Equipment Procurement Update – as of 10-31-23:

On the new Acela:

Amtrak continues to work on various approvals with FRA.

On the Charger Long-Distance Locomotives:

Amtrak continues to take delivery – with 36 units currently in service – and this procurement is on track.

On the Airo trainsets:

There are 10 car shells in production and the initial rabbit car is beginning testing. This procurement is proceeding on track.

- Connecticut DOT Rail Car Procurement:

On 10-12-23, Marci Petterson reported to the Technical Subcommittee that the kick-off meeting was held and they have begun pre-design meetings.

- VIA Rail Equipment Procurements:

A detailed update presentation was provided to the NGEN during the Annual Meeting on 2-3-23. The presentation is posted in the Meetings section of the website at [www.ngec.org](http://www.ngec.org)

Next Planned Update: 2024 NGEN Annual Meeting 2-2-24

- Document Control Progress Report – 9-5-23:

Tammy Krause reported that on 10-26-23, the Technical Subcommittee approved the proposed work plan for document control. She emphasized that the specification reviews are starting now and that she will continue to provide updates on this at each Technical Subcommittee call. She also noted, “this is the first time we will be working on two specifications at a time”.

Below, is the work plan as approved on 10-26-23. The associated budgets were previously approved by the Executive Board.

Technical Subcommittee Approved Document Control Work Plan for FFY 2024:

1. Updating the Dual Mode Locomotive Specification (305-11)
  - Request DCRs by 1/4/24
  - Submit DCRs to the Propulsion WG by 1/18/24.
  - Propulsion Group review the DCRs and return by 2/29/24.
  - Submit to the Entire TSC 3/14/24 with comments due 3/28/24.
  - Review with the TSC 4/11/24
  - Vote on the acceptance of the proposed changes 4/25/24
  - Submit to the EB 4/25/24.
2. Updating the Single Level Car Specification (305-003)

- Request DCRs by 2/1/23
- Submit DCRs to the appropriate WGs by 2/15/24.
- WGs to review the DCRs and return by 4/11/24.
- Submit to the entire TSC 4/25/24 with comments due 5/9/24.
- Review with the TSC 5/23/24
- Vote on the acceptance of the proposed changes 6/6/24
- Submit to the EB 6/6/24.

### 3. Continue De-Amtrak the PRIIA Subspecifications

- Complete the changes at a rate of 1 Subspecification every 3 weeks.

#### - Filling Vacancies:

NGEC Executive Board – Specification Review Panels/Members: 2023

Ray Hessinger, once again, reported on several Review Panels that have vacancies. The vacancies are seats that have always been filled by IDOT and Caltrans, and still should be.

Ray also reported that Jeff Gordon, FRA, announced last week to the Technical Subcommittee that he is retiring at the end of this calendar year. With the impending retirement of Jeff Gordon, FRA will have a vacancy on each of the Review Panels beginning 1-1-24.

Jeff Gordon acknowledged he is retiring at the end of December 2023, and provided the following:

Mike Murray will be FRA's representative on the Executive Board and the FASC and Melissa Shurland will be the FRA rep on the Technical Subcommittee and as team leader of the Mechanical Working Group. Jeff added that he had not talked with Melissa specifically about the Review Panels, but he believes she is the right fit as they are technical working groups. Jeff will discuss this with Melissa and let Steve Hewitt know.

#### Consultants/ Technical Support to the Review Panels:

Review Panel Consultant – Larry Salci  
 NGEC Support – Steve Hewitt  
 Technical Support – Tammy Krause  
 Amtrak Technical Support – Mike Kraft

#### Bi-Level Car Review Panel:

Ray Hessinger, NYSDOT – Chair  
 Vacant Caltrans  
 Amanda Martin, Iowa DOT  
 Jeff Gordon, FRA

#### Locomotive Review Panel:

Ray Hessinger, NYSDOT – Chair  
 Vacant Caltrans  
 Vacant - IDOT (to be vacant)  
 Jason Biggs, Washington State DOT  
 Jeff Gordon, FRA

#### Trainset Review Panel:

Ray Hessinger, NYSDOT – Chair  
 Ed Engle, Iowa DOT  
 Jason Biggs, Washington State DOT  
 Jeff Gordon, FRA

#### Single Level Rail Car Review Panel:

Ray Hessinger, NYSDOT -- Chair  
 Ed Engle, Iowa DOT  
 Jason Biggs, WSDOT  
 Jeff Gordon, FRA

DMU Review Panel Members:  
 Ray Hessinger, NYSDOT -- Chair  
 Jeff Gordon, FRA  
 Brian Beeler, for Maine DOT  
 Vacant - Caltrans

Kyle Gradinger, Caltrans, will discuss Review Panel representation with Momo Tamaoki and ask for her recommendations as to Caltrans representation. He did note that Caltrans would want to remain on those panels but was not sure who would be the right person. He will get back to Steve Hewitt and Ray Hessinger.

- NGEC 2024 Annual Meeting:

The NGEC Annual meeting for 2024 is scheduled for 2-2-24 at the Hyatt Regency Hotel Capitol Hill, Washington, DC.

On 10-31-23, Ray Hessinger and Steve Hewitt provided an initial DRAFT agenda and asked that Board members review and comment on it by the 11-28-23 Executive Board meeting.

- Status – NGEC By-Laws Annual Review/Update NGEC two-pager:

Steve Hewitt reported that the By-Laws are under review by the FASC with recommendations expected to come out of the subcommittee after it meets next week (11-8-23).

The NGEC two-pager is also under FASC review with several recommendations being considered by its members. MODOT has, once again, agreed to take on the formatting and printing of the new version at no cost to the NGEC. (Thank you Troy and Laura).

- Considering the question of changing web-conference service provider from WebEx to Teams:

Based on input from both FRA and Amtrak and no concerns expressed by the Technical Subcommittee members or the Executive Board, Ray Hessinger determined that the preference seems to be to switch from WebEx to Teams. Steve Hewitt will research costs and report to the Board before moving to Teams.

### **Technical subcommittee**

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

**Note: On August 8<sup>th</sup> the technical subcommittee discussed the cadence of its meetings as directed by the Executive Board and determined that the meetings would remain bi-weekly with the Chair and Steve Hewitt making the determination to cancel an up-coming meeting if the agenda was light.**

During the month of October 2023, the subcommittee met twice – on the 12<sup>th</sup> and the 26<sup>th</sup>:

Key decisions and action item updates from the month of October 2023, included:

- Backgrounder educational document:

The 2023 NGEC two-page educational remains available in electronic or hard copy versions. Requests should be sent to Steve Hewitt at [shewitt109@aol.com](mailto:shewitt109@aol.com)

To date 354 copies have been distributed.

The FASC is in the process of developing the 2024 version of the two-pager.

- Document Control Update as of 10-26-23:

On 10-26-23, the Technical Subcommittee approved the FY 2024 Document Control Work Plan.

The plan can be seen in the Executive Board section of this report.

- Communications on Rail Cars Working Group & the Carbody Materials Working Group's status - 10-12-23:

The Communications Working Group met last week and have finalized their changes to the DTL Section of the Single Level Specification. The Working Group decided to create the section for the Single Level and it will be applied to other specifications. They have submitted a DCR with all of the changes.

The Materials Working Group has not met and there is no update for them.

- Multi-State Car Procurement - Caltrans (Lead State) update as of 10-31-23:

See Executive Board section of this report for the status of the Venture car multi- state procurement.

- Metro North Dual Mode Locomotive Procurement as of 10-31-23:

See Executive Board section of this report for the status of this procurement.

- Amtrak Equipment Procurement Updates as of 10-31-23 reported by George Hull, Amtrak:

See Executive Board section of this report for the status of this procurement.

- Connecticut DOT Rail Car Procurement:

See Executive Board section of this report for the status of this procurement.

- University of Nebraska/FRA study on High Speed wireless technology as of 10-31-23:

No change from the 8-31-23 report.

Hamid will provide an update on the 11-9-23 Technical Subcommittee meeting.

Report from Hamid Sharif on 8-31-23:

- "The University of Nebraska Advanced Telecommunications Engineering Lab has been studying the sub-giga-Hertz frequencies for rail applications to ease the current spectrum saturation for railroads, under the direction of FRA. We have studied the 160 MHz frequency as an example of these sub-giga Hertz bands. Theoretical and computer models were designed to represent a typical Transmitter, a Receiver, and a channel model for this frequency band. Then, different applications and rail scenarios were simulated, and performance data were collected. We have been doing field tests this summer to verify our lab data. We plan to publish our results this Fall. Any interested parties, please feel free to contact me for more information.

Additionally, as we plan for the next phase of this project, we are interested to hear any suggestions for implementing any other sub-giga frequencies or any specific rail application utilizing the 160 MHz.

Please feel free to contact me to discuss any utilization of our current work or suggestions and ideas for the next phase of this project. Thank you."

Hamid Sharif  
Advanced Telecommunications Engineering Lab  
University of Nebraska-Lincoln

Phone: 402-917-6363

Email: [HSHARIF@UNL.EDU](mailto:HSHARIF@UNL.EDU)

- Working Group on Specification Weight Issues as of 10-31-23:

On 10-31-23, Jeff Gordon, FRA, reported that he is looking to set a meeting of the working group for 11-9-23 from noon to 1:00pm Eastern. He asked that anyone not on his list , but interested in participating on the working group to contact him at [jeffrey.gordon@dot.gov](mailto:jeffrey.gordon@dot.gov).

Jeff added that he is planning to have another meeting in December which “maybe” will finalize the document for submittal to the Technical Subcommittee for further action.

At this point, Jeff informed the Technical Subcommittee members on today’s call that he will be retiring from FRA at the end of December 2023 after 39 years.

Jeff announced that upon his retirement the following FRA representatives will fill his NGEC roles in an interim capacity:

Mike Murray will serve as FRA’s voting member of the NGEC Executive Board and the Finance and Administrative Subcommittee (FASC). Melissa Shurland will serve as the voting member of the Technical Subcommittee and as team leader for the Mechanical working group.

Jeff also noted that he is hoping at the November meeting of the Working Group on Weight Issues to poll the members to get a team leader in place in case the work is not completed in November.

After hearing the news of Jeff’s retirement from FRA, Ray Hessinger (NGEC Exec Board Chair) congratulated Jeff and expressed his appreciation for the work Jeff has done with the Committee and with the states throughout the years.

Steve Hewitt also offered his congratulations and thanked him for all that he did for the NGEC since its inception. Steve noted that Jeff was always “the voice of reason” for the NGEC and such a strong contributor and an invaluable member of the Committee that he will be impossible to replace.

George Hull weighed in as well with his congratulations and commented on what Jeff meant to FRA and to all those he worked with. George added “you will be missed”.

- Status: NGEC Funding – CRISI Grant Timeline – path forward:

The NGEC did not receive a 2022 CRISI Grant. The announcement of grants awarded was released on 9-25-23 and the NGEC was not included in the award list.

See the Executive Board section of this report for more detail on a potential path forward.

- Follow-up: Question of changing the web-conference service provider from WebEx to Teams:

On 10-26-23, Steve Hewitt reported that he had heard two comments on the question of preference of a webconference service provider – either stay with WebEx or change to Microsoft Teams. Both comments stated an inclination to stay with WebEx.

Steve asked if there were any further comments/thoughts/opinions?

Steve did note that FRA – Mike Murray – had recommended to the Executive Board that the NGEC begin using Microsoft Teams rather than WebEx. Mike and others have had difficulties with WebEx.

George Hull asked if members had comments. Hearing none, he noted that he and others at Amtrak have problems with WebEx as well and he would like to see the NGEC switch to Teams.

Steve Hewitt agreed that there were issues with WebEx for some and today was a prime example of those problems as several members had difficulties getting on this call or staying connected.

George asked what the next steps are. Steve said that it is a Board decision and suggested that George add his concerns to those of FRA at next week’s Exec Board call (10-31-23) and inform Board members that the question was brought to the Technical Subcommittee and there did not appear to be any concerns with moving to Teams.

- 2024 NGEC Annual Meeting:

On 10-31-23 Steve Hewitt reminded members that the NGEN Annual meeting will be held on 2-2-24 at the Hyatt Regency Capitol Hill Washington, DC.

A DRAFT agenda has been prepared and will be discussed on the next Executive Board meeting scheduled for 10-31-23. The plan is to hold the meeting as a hybrid – in-person and virtually. The time is anticipated to be registration at 8:00am Eastern with the meeting kicking off at 8:30AM and ending around 12:30PM Eastern.

AASHTO has provided the hotel link for the rail meetings to be held during that week. As always, the NGEN is a part of several meetings held in conjunction with AASHTO's Council on Rail Transportation.

Below is the link for the 2024 Winter Rail Meeting provided by Kamasha Hendrickson, AASHTO Senior Meeting Planner:

Room Rate: \$193 per night plus tax

Hotel Link: [AASHTO 2024 Council on Rail Transportation Legislative Meeting \(hyatt.com\)](https://www.hyatt.com/en/usa/meetings-events/aashto-2024-council-on-rail-transportation-legislative-meeting)

Cut-Off Date: January 5, 2024

Kamasha Hendrickson, CMP, CGMP

Senior Meeting Planner

American Association of State Highway and Transportation Officials (AASHTO)

555 12th St, NW, Suite 1000

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Tel: 202-624-5403

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#### **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 October, the Finance and Administrative Subcommittee met once on the 11th.

**Note: The FASC discussed its' cadence of once every four weeks, and, like the Tech subcommittee, it left the cadence as is with the Chair and Steve Hewitt making the determination to cancel an up-coming meeting if the agenda was light.**

Key decisions and action item updates from the month of September 2023 included:

#### **Treasurer's Update- Balance and Spend Rate – Forecast as provided by Tim Ziethen:**

##### **Balance/Spend Rate Through August 2023**

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

Expenses incurred through August 2023: \$1,247,141.37

Balance remaining: \$2,858.63.

Estimated spending, at current rate, for balance of the Grant: \$15,025.80

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Estimated Balance at the end of the Grant Period: (\$12,167.17) over target.

**Status updates provided by Tim Ziethen on 10-31-23:**



- Amtrak submitted the 4<sup>th</sup> Quarter NGE 305 Committee report to the FRA.
- Amtrak has extended the period of performance under contract with AASHTO – Strat is point of contact.
- Financials – Grant is exhausted (accrual basis) however Amtrak needs to submit past invoices for reimbursement using normal process.
- Amtrak AOP budget (\$260,000) is approved for NGE 305 Committee – continued work funded per work plan.
- CRISI grant not awarded – Amtrak will request feedback from FRA.
- 6 mos. No-Cost extension approved – allowing billing driven by delay in invoicing (normal).
- Update to By-Laws

Previously confirmed no changes needed from Amtrak Legal – waiting for final confirmation.

**Status – Contract Modifications for the Sub-Contractors:**

Tim also noted that once the PO is executed between Amtrak and AASHTO, the contract modifications extending the sub-contractor agreements through 9-30-24 can be executed by AASHTO.

- Conveying the message as of 9-13-23:

The NGE 2023 backgrounder/educational document was released in January and formally introduced during the Annual Meeting. To date 354 copies have been distributed (hard and soft).

The FASC has begun the process of developing the 2024 version of the two-pager and is reviewing recommendations provided by John Oimoen, IDOT, and Steve Hewitt, NGE Manager. On 11-8-23 further changes recommendations will be discussed by the FASC.

On 10-11-23, Steve Hewitt reported that he had checked with Troy Hughes, MODOT, and Troy confirmed that MODOT would, once again, take on the formatting, production, and printing of the 2024 NGE two pager (Thank you Troy!)

Steve gave an overview of changes he would recommend and asked all FASC members to do a review of the document over the next month and provide comments, suggestions or recommendations for changes that would update and improve the two-pager for 2024.

Recommendations provided by Steve Hewitt:

On Page one:

- Insert a new photo.
- Change date to 2024 in the upper right-hand corner.
- Update the Timeline column by including current numbers of Charger Locomotives and Venture cars in service. (John Oimoen, IDOT will provide updated numbers)
- Steve suggested and asked for input – that on the timeline the updating of the 305-900 NGE Reference specification series is listed as completed in September 2023. (Troy Hughes, MODOT, suggested that this be included so as to show that there were activities completed in 2023.)

On Page two:

- Update the photos. Steve noted there are three currently on Page two and refreshing them would be good to do. (John Oimoen suggested the new photos include interior pictures as well. IDOT has some good pictures of the interiors of Café and Coach cars. He will have some sent to Steve Hewitt.)
- Steve Hewitt noted that he was aware of one additional entity - Utah Transit Authority (UTA)- that was using the NGE specs. All other listed under Realization on the second page continue to be relevant. He asked members of FASC to let him know if there are others.

Ultimately, it was agreed that FASC members will review the two-pager and provide comments/suggestions for the 2024 version in advance of the 11-9-23 FASC meeting.

The NGEC website is up and running at: [www.ngec.org](http://www.ngec.org). Steve Hewitt reviews the website periodically and sends updates and/or changes to AASHTO – the maintainer of the site.

- Quarterly Grant Agreement Progress Report to FRA

All reports have been submitted on time.

The report for the period ending 9-30-23 was submitted on 10-30-23.

The next report will be due on 1-31-24.

- Annual NGEC By-Laws Review:

On 10-11-23, John Oimoen and Steve Hewitt reported that they had done an initial review of the NGEC By-Laws and agreed that no changes to the By-Laws were needed at this time.

Steve added that this review included a look to see if there was anything in the By-Laws that would have to be changed due to there being a new funding source. There did not seem to be anything in the By-Laws that addressed funding sources.

Steve Hewitt recommended that the FASC members review the By-Laws with the understanding that he and John Oimoen were recommending no changes. Members would be asked to let Steve Hewitt know if there are changes that they feel should be made, that, perhaps Steve and John missed.

Tim agreed and added that Amtrak Legal had previously stated that they did not see any changes needed in the By-Laws or structure of the Committee, but that he will ask that Legal take another look and that the FASC take the issue up for a recommendation to the Executive Board on the next FASC call scheduled for 11-8-23.

#### **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 NGEC Bi-Level Rail Car Specification Review Panel was convened by the Chair in January and on February 14<sup>th</sup> the Panel went through the DRAFT Review Panel Report and Recommendations prepared by technical consultant Larry Salci. The Panel recommended approximately twenty additional revisions and on February 17<sup>th</sup> approved the Report and its Recommendations as revised by Mr. Salci in an electronic vote. On 2-21-23, the Report and its Recommendations were adopted by the Executive Board and the changes that will comprise 305-001 Revision D were sent to the technical writer for incorporation into the spec.

The Bi-Level Specification 305-001 Revision D has been completed and is available by request through Steve Hewitt.

The NGEC Review Panels did not meet in September 2023.

The NGEC Review Panels did not meet in October 2023.

On 10-31-23, the Executive Board discussed filling vacancies that have occurred in recent months on some of the Review Panels.

Caltrans, IDOT and FRA will (or do) have vacancies on various Review Panels and will report back to the Board on 11-28-23 with representatives to appoint to fill the vacancies.