Amtrak has selected California-based Siemens Mobility to manufacture a new fleet of 83 intercity trainsets for use on the Northeast Corridor, the Palmetto, and adjacent state-supported routes (with options for up to 47 more). The announcement follows on from a two-year-old Request for Proposals (RFP) to replace Amtrak’s decades-old fleet of 400 Amfleet I coaches and ex-Metroliner railcars. View the Amtrak Press Release

“These new trains will reshape the future of rail travel by replacing our aging 40-to-50-year old fleet with state-of-the-art, American-made equipment,” said Amtrak CEO Bill Flynn. “This investment is essential to preserving and growing our Northeast Regional and state-supported services and will allow our customers to travel comfortably and safely, while deeply reducing criteria pollutants.”

The new single-level equipment will be able to operate at a maximum authorized speed (MAS) of 125 mph, have Wi-Fi capability, feature large windows and have improved climate control systems.

Using multi-power systems, including 17 trainsets with hybrid diesel-battery operation to be used for New York’s Empire Service, these trains will also provide a substantial environmental benefit through reduced criteria pollutants compared to the existing fleet. Other trainsets will be configured to end the time-consuming engine changes at Washington & New Haven.

Amtrak Gives Congress $5.4 Billion Request

In an end-of-April submission, Amtrak asked Congress to allocate just over $5 billion to support the nation’s national intercity passenger railroad. The request consisted of $3.8 billion appropriated for the Federal fiscal year 2022 budget and $1.5 billion additional future funding as part of the new 5-year Surface Transportation Act reauthorization. Both the FFY 2022 budget and the reauthorization act would take effect October 1, 2021. (Continued On Page 3 - 2021-22 Request)
In February 2021 ESPA President Gary Prophet, Legislative Director Tony Rudmann, Communications Director Bruce Becker and our Executive Director held a conference call with Assemblyman William Magnarelli (D-Syracuse), Chair of the Assembly Transportation Committee.

In the meeting, ESPA discussed a number of State rail issues – raising awareness of Section 209 of the Passenger Rail Investment and Improvement Act which requires states to pay for all Amtrak service on routes under 750 miles; discussing the long-delayed Empire Corridor EIS (submitted to the FRA in 2014) and how the lack of a “Record of Decision” puts investment opportunities at risk; noting that our 2009 State Rail Plan is out-of-date and needs updating; and highlighting the importance of advancing design of the Livingston Avenue Bridge replacement in Albany.

The meeting allowed ESPA to present its case to the Assemblyman and helped inform him and his staff on these important rail issues. ESPA also mentioned the need to undertake interim repairs to the Syracuse rail station platform in advance of its replacement with a high-level, center-island platform in the future. Similarly, we discussed the importance of the long-delayed Maintenance Base facility in Niagara Falls that would improve the quality and reliability of Empire Corridor trains.

In March, ESPA and passenger rail advocates lost Don Nimphius, our long-time Coordinator for Long Island. Don spent most of his professional career as a teacher and coach in the Smithtown School District. In addition to his passion for passenger trains, he was heavily involved with volunteer fire department activities in Suffolk County where he served as a Chief and Commissioner.

Don's commitment to ESPA had him catching LIRR trains at 4:45am or so in the morning to connect to the Adirondack at Penn Station for Officer and Coordinator meetings in Schenectady. The return trip often got him home at 10 p.m. or later. In his later years, EPSA members would “escort him” from the Adirondack on Saturday nights at Penn Station to make sure he made his eight minute or so connection to the LIRR; otherwise he faced a 90-minute layover after a very long day. ESPA member Rich Kulla remembered Don in our train travels to meetings: “he always provided a conversation with a great deal of exuberance”. Don always had lots of ideas about better train service and was a persistent advocate for eastern Long Island. He is missed.

Letter To The Editor:  Just one clarification to “MTA Approves Order For Metro-North Dual-Mode Locomotives: (Benjamin Turon - Winter-Early Spring 2021). During the time period when the contract was awarded in December 2020, the MTA $51 billion 2020-2024 Five Year Capital Plan, which including awarding new capital construction contracts, was primarily on hold. This was due to the ongoing financial crises as a result of COVID-19. Exceptions were made when contracts were awarded utilizing over $8 billion in carryover funding from the previous 2010-2014 and 2015-2019 Five Year Capital Programs or those paid for under open active Federal Transit Administration grants. It is my understanding that FTA funds are paying for the $335 million contract to Siemens Mobility Inc. for the purchase of 27 new dual-mode electric locomotives for Metro North Rail Road.

Larry Penner (Larry previously worked for the Federal Transit Administration Region 2 New York Office)
New $1 Billion U.S. Transportation Grants Available  - Tony Rudmann

The federal Transportation Department has announced a billion-dollar competitive grant program under the Rebuilding American Infrastructure with Sustainability and Equity (RAISE). Funded by the FFY 2021 budget, RAISE grants were formerly known as BUILD and TIGER. Since the grant program was originated in 2009, it has awarded over $8.9 billion to 678 projects in all 50 states, the District of Columbia and Puerto Rico.

“In communities across the country, there is a tremendous need for transportation projects that create high-quality jobs, improve safety, protect our environment, and generate equitable economic opportunity for all Americans,” said Secretary of Transportation Pete Buttigieg. “With RAISE grants, we are making these needed investments in our communities’ future.”

Capital funding can be provided to any public entity, including municipalities, counties, port authorities, tribal governments, and Metropolitan Planning Organizations. Also, the program facilitates multi-modal, multi-jurisdictional projects which do not qualify for other federal projects.

The RAISE program and its predecessors have proved popular with more than 9,700 applications requesting more than $175 billion for transportation improvements across the country. New York transportation capital projects have benefited from the twelve-year run of this competitive program, but it is not known if Empire State entities will seek funding. Applications are not public record and awards are the only measure of success.

Applications were due to be submitted by July 12, 2021, and – if past practice is followed – awards will be announced by in the early fall.

2021-22 Request  (Continued From Page 1)

The funding for the October 2021 thru September 2022 budget year grant would include $1.5 billion for the Northeast Corridor, $703 million for State Supported services and $1.3 billion for Long Distance routes. In addition, $180 million is sought in lieu of PRIIA Section 209 state payments and $56 million in lieu of PRIIA Section 212 commuter railroad payments to Amtrak.

Additionally, Amtrak asked Congress to include a dedicated annual funding stream for the passenger railroad within the reauthorization’s ongoing discussions and approve additional investment of $1.5 billion in the new reauthorization program.

The initial “skinny budget” submitted by President Joseph Biden on April 9th proposed discretionary grant funding of $2.7 billion, an increase of 35 percent over pre-COVID-19 funding levels. Legislation enacted to deal with the economic damage of the world-wide pandemic provides additional monies to help counteract lost ridership, allow added unusual anti-virus activities and compensate for the loss of state & commuter railroads’ ability to pay for customary Amtrak services. The Amtrak budget request does ask some continuation of pandemic support, due to the continuation of those issues, through the end of the approaching fiscal year.

“To overcome the setbacks of service and financial performance we faced during this crisis, we seek Congress’s continued, strong support in FY 2022 so that we can return to the successes and growth we accomplished in FY 2019,” said Amtrak Chief Executive Officer William Flynn. “Amtrak is poised to be a key part of the nation’s post-pandemic recovery and low-carbon transportation future, but to do so we require continued Federal Government support, including robust investment.”

The 77-page submission to the House of Representatives and Senate includes details on the use of the requested monies, reports on performance of routes in the FY 2020 which ended September 30, 2020, information on existing and future equipment, as well as ideas for future expansion of the national passenger railroad. The full document may be read on the Amtrak website: www.Amtrak.org

Save The Date!

2022 ESPA Annual Meeting – Saturday, March 12, 2022
Key Hall - Downtown Schenectady
New York State Ridership Stats

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Date Source - Amtrak Monthly Performance Reports

Attention! You can now renew your membership; join the Association or donate to ESPA (all with a credit/debit card) on-line, in addition to updating your membership information (address; e-mail, etc.) anytime!

To access your ESPA membership account please follow these steps:
- Go to [www.esparail.org](http://www.esparail.org)
- Select "Join" & Then "Renew/Donate"
- Click on "Contact Us" For Assistance With Your ESPA User Name & Password (if needed)
- Complete The Contact Form With Your Name, E-Mail Address And Enter 'Yes - I Need Help' & Click "Send"
- The ESPA Membership Help Desk Will Respond (As Quickly As Possible) Via E-Mail With Your Membership Account User Name & A Temporary Password
- You Can Then Log-Into Your ESPA Membership Account By Selecting "Join" - "Renew/Donate" & "Access My Account - For Security Purposes Please Change Your Password To One Of Your Own Selection
- If You Forget Your Password In The Future You Will Be Able To Re-Set It Using Your E-Mail.

If You Have Questions Or Need Assistance With Your Account, Simply Complete & Submit The "Contact Us" Form!

### ESPA Meetings

ESPA members and ALL other interested persons are welcome & encouraged to participate in ESPA Meetings!

Check 'Events' at [www.esparail.org](http://www.esparail.org) for the most current meeting information!
Advance registration is required!

**Upcoming 2021 ESPA 'Virtual' Working Group Meetings**

**Saturday, October 23, 2021**
12:00n - 3:30pm Via Zoom

**Saturday, November 20, 2021**
12:00n - 3:30pm Via Zoom

*Dates, times & locations are subject to change!*

### ESPA Membership

The Empire State Passengers Association is an all volunteer network of people working to improve intercity rail, mass transit and bus service across New York State.

- Introductory Membership ($15.00 for first year)
- Regular Individual Membership ($30.00 per year)
- Student, Senior, Fixed-Income Membership ($20.00 per year)
- Family Membership ($40.00 per year)
- Sustaining Membership ($60.00 per year)
- Patron Membership ($100.00 per year)
- Association/Non-Profit Org. ($300.00 per year)
- Corporate Membership ($500.00 per year)
- Lifetime Membership ($500.00 One Time)

Join or Renew On-Line At [www.esparail.org](http://www.esparail.org) or Send A Check Made Payable To 'ESPA' To 'ESPA', P.O. Box 434, Syracuse, NY 13209
New York State, with the passage of the Climate Leadership and Community Protection Act in Spring 2019, took a bold step in becoming a leader in confronting the growing danger of global warming. The Climate Act mandates that the state move to a net-zero emission economy by 2050 by eliminating most emissions of greenhouse gases – primarily CO2 – from the burning of fossil fuels.

For rail transport, the most obvious answer to going carbon neutral is electrification, an over-a-century-old technology that today is in extensive use moving both heavy freight trains and high-speed passenger trains around the globe. However, there is a second alternative to diesel motive power: trains propelled by hydrogen fuel cells with hydrogen being produced from renewable electricity from hydro, wind, and solar power generation.

In September 2018, the first hydrogen train entered commercial service. French rail manufacturer Alstom provided a small fleet of Coradia iLint multiple-units fuel cell trainsets for revenue service evaluation in the northern Germany state of Lower Saxony. These trains have proven successful, with orders pending for more sets to phase out diesel operations.

Located near the vast offshore wind farms of the North Sea, “green hydrogen” can be economically produced in Lower Saxony by utilizing off-peak power during the overnight hours when the electricity generated by the wind turbines largely goes unused. Waste “grey hydrogen” is also available from Germany’s chemical industry, where it is created through steam formation of natural gas.

Yet many European rail experts dismiss hydrogen as a large-scale solution in favor of overhead AC catenary electrification – as exists today along Amtrak’s Northeast Corridor – which has far greater energy efficacy than hydrogen fuel cells. Europe has extensive electrification, so it would be a straightforward project to electrify what remains of mainline diesel operations.

The inefficiency is due to the hydrogen first having to be produced from electricity through electrolysis, then compressed or liquefied for transport and storage, then (in an onboard fuel cell) converted back to electricity to power the traction motors of a locomotive or multiple-unit trainset. In contrast, electric trains take power directly from the overhead wires or trackside third rail.

Another issue with hydrogen is onboard storage: the far lesser dense hydrogen gas – as compared to liquid diesel fuel – limits the range of hydrogen trains to a few hundred miles less than diesels (albeit still far more than battery trains), unless a tender car is included to feed additional hydrogen fuel to a locomotive.

In North America, however, the freight rail industry is seemingly ready to go all-in on hydrogen, while strongly dismissing the idea to electrify their mainlines. The reason for this is the utter lack of any electrified track outside Amtrak’s Northeast Corridor and a few commuter lines. While leading to more efficient operations long-term, electrification has large upfront capital costs in the installation of the overhead AC catenary and other supporting infrastructure.

If the cost of purchasing, fueling, and maintaining hydrogen powered trains can be made equivalent to their existing diesel-electric fleet, then America’s freight railroads are content to meet climate goals by rebuilding their existing locomotives, replacing the diesel engines that power the electric traction motors with stacks of fuel cells, and attaching tender cars to locomotives, as the Florida East Coast Railway does for its fleet of LNG-fueled locomotives.

This transition from diesel to hydrogen would occur as North America builds up the “hydrogen economy”, which can make use of existing natural gas infrastructure of pipelines and technical knowhow. And research and development into creating more efficient ways of producing hydrogen is well underway.

Thyssenkrupp in Quebec is building an 88-megawatt water electrolysis plan that will be able to generate 11,100 metric tons of green hydrogen per year from hydroelectricity. H2Pro, an Israeli startup backed by Bill Gates, is developing an electrochemical-thermal process that they claim is 95% efficient compared to electrolysis, where 70-to-80% of the electricity used to split the water molecule creates a volume of hydrogen of equivalent energy.

Proton Technologies in Alberta, Canada is working on commercializing the extraction of “blue hydrogen” from oil and tar sand deposits by injecting oxygen to create a reaction that frees the hydrogen while leaving the other gases, including carbon dioxide or hydrogen sulfide, below ground.  

(Continued On Page 6- Hydrogen)
New Trainsets (continued from page 1)

The $7.3 billion investment includes the purchase of equipment and a long-term parts supply and service agreement, facility modifications and upgrades and other program expenses. Amtrak’s existing maintenance bases, including at Rensselaer and Niagara Falls, will need to be modified to for the new trainsets (New York State has proposed constructing a new, modern, fully-enclosed, all-weather facility in Niagara Falls previously).

The cars will be designed with Amtrak’s new standard of enhanced accessible features, including inductive hearing loops, accessible restrooms and vestibules, an accessible Food Service car and lifts for customers with reduced mobility, including wheelchair users.

The new equipment will operate on the Northeast Corridor, the long distance Palmetto and various state-supported routes that will replace Amtrak-owned Amfleet, Metroliner, and state-owned equipment on certain routes throughout the country. In addition to the Northeast Regional, other routes will include the Adirondack, Carolinian, Cascades, Downeaster, Empire Service, Ethan Allen Express, Keystone Service, Maple Leaf, New Haven/Springfield Service (Amtrak Hartford Line and Valley Flyer), Pennsylvanian, Vermonter and Virginia Services. The first equipment is slated to be delivered in 2024 for initial testing, with the first hybrid trainsets arriving in 2025 for preliminary testing. Reportedly the sets destined for use on New York State services scheduled to enter revenue service in 2029 & 2030.

The actual cars are expected to be similar to Siemen’s Venture series first introduced on Florida’s Brightline and currently on order for use on Amtrak’s California & Midwest corridor services. In addition, VIA Rail’s first new corridor service trainset being manufactured by Siemens has been delivered for testing and it should provide a glimpse at what Amtrak’s future equipment will offer American passengers. Information on Siemens Ventura Trainsets is available on the company website: www.usa.siemens.com/mobility

Hydrogen (continued from page 5)

The Hydrogen Economy is growing in New York State too. The pioneering fuel cell company Plug Power (founded in 1997) is headquartered in Latham, New York, with a manufacturing plant in Rochester. The company manufactures fuel cells for use in warehouse and heavy-duty construction equipment, partnering with the SK Group and Renault.

Plug Power is building in Alabama, New York, (between Rochester and Buffalo) the largest hydrogen production plant in North America, which will produce 45 metric tons of green liquid hydrogen daily for servicing the Northeast region.

Alstom, the leading developer of hydrogen fuel cell trains, has facilities in Hornell (where Amtrak’s new Acela trainsets are being built), signaling and train control manufacturing in Rochester, and uses the former Bombardier at Plattsburgh. In a recent online seminar, an Alstom official stated that the company saw America as a big market for fuel cell trains, given its limited electrification, as compared to Europe and Asia.

Alstom is developing a 100-mph bi-mode train for the SNCF (French National Railway), equipped for both overhead electric and fuel cell operation. The four-car train accommodates 230 seated passengers and has a range of 250-375 miles (400-600km) on non-electrified lines between fueling cycles. Perhaps a third rail prototype trainset or locomotive could be developed and tested in New York State.

Several other hydrogen fuel cells demonstration projects are getting underway at Canadian Pacific Railway and Sierra Northern Railway for freight locomotives. It would be great if working with the in-state industry of New York could start a demonstration project for passenger rail.
Federal Permanent Amtrak Funding Proposed  - Tony Rudmann

A dedicated annual funding stream would be created to help Amtrak invest in major improvements, increase passenger rail efficiency, and help provide safer, more reliable service under legislation introduced by Senator Richard Blumenthal (CT) and Congressman Danny Davis (IL). The Intercity Passenger Rail Trust Fund Act (IPRTFA) would provide an estimated $5.4 billion annually to Amtrak with 60 percent earmarked for the National Network and 40 percent allocated to the Northeast Corridor.

“Every other critical mode of transportation infrastructure in our country has a dedicated funding stream – except passenger rail”, said Senator Blumenthal. “With this dedicated funding, Amtrak would be able to continually invest in and improve operations. This action is long overdue.”

“Today, passenger rail represents an opportunity for economic revival, cleaner infrastructure and more efficient travel”, said Congressman Davis. “It also provides an adequate solution to ground and airport traffic congestion while incorporating rural America into the national transportation system.”

The proposed legislation is endorsed by Amtrak, the national Rail Passengers Association (RPA), the National League of Cities and the National Disability Rights Network (NDRN).

According to Amtrak CEO Bill Flynn, “An intercity passenger rail trust fund would be a game changer for America and Amtrak”,

“If Americans are ever to have access to a world class transportation system, we need to take seriously the problem of how this country funds the creation of modern, efficient passenger rail services”, said RPA President and CEO Jim Matthews. “That is just what this bill does”. 

“America’s cities benefit from a robust intercity and commuter rail network that connects our regions, and the Intercity Passenger Rail Trust Fund Act will give rail the same dependable financing tool that Congress provides already to roads and transit”, said Clarence Anthony, Executive Director of the National League of Cities.

“Amtrak is a critical form of transportation for millions of Americans with disabilities”, said NDRN Executive Director Curt Decker. “But many Amtrak trains and stations remain inaccessible to people with disabilities.” The organization believes the Blumenthal–Davis bill would allow Amtrak to begin to address architectural and other accessibility barriers.

LIRR Studying Bi-Mode Battery-Electric Trains  - Benjamin Turon

The Long Island Rail Road has entered into a $860,000 agreement with train manufacturer Alstom (which has facilities in Hornell, Plattsburgh, and Rochester) for a feasibility study on operating battery-electric multiple units (BEMUs) throughout its system to replace diesel traction over the non-electrified segments of its system.

The plan is to retrofit the railroad’s existing M7 EMU cars with batteries, as opposed to ordering new trainsets. The trains would run off the existing DC third rail in electrified territory and then seamlessly switch to batteries over existing non-electrified diesel territory. Charging stations located at the end of branch lines would re-energize train batteries between runs; the lithium-ion batteries take about 10 minutes to charge.

The LIRR stated that such trainsets would negate the need to further electrify the railroad’s tracks; however, given the 50-mile range of Alstom’s existing Coradia Polyvalent BEMU trainsets, it seems unlikely for use over the Ronkonkoma and Montauk branches due to their long unelectrified segments of 46 and 79 miles, respectively. However, both the Oyster Bay and Port Jefferson branches fall well in the range of battery operation.

“This changes the dynamics for how we look at our capital program needs in the future," LIRR president Phillip Eng stated in an exclusive interview with Newsday. "This is an opportunity to really look at a technology that could address this in a manner that is achievable, fundable, and the cleanest form of service that we can think of."

The year-long study is being funded out of the LIRR's operating budget and will include simulations of battery-powered trains. If determined to be feasible, the next step would be for a pair of M7 electric cars to be equipped with batteries and then tested on a non-electrified branch (likely the Oyster Bay line) which would be fitted with a battery charging station at its terminal.

If successful, the LIRR would convert the rest of the M7 vehicle fleet while incorporating batteries in all new rolling stock orders. Overall, this is likely the first step being taken by a railroad in New York State that fulfills the goals of the Climate and Community Investment Act of moving to a zero-emission transport system.
Penn Station Reconstruction Plans Unveiled

Former Governor Andrew M. Cuomo in April unveiled new reconstruction options for transforming Pennsylvania Station – the nation's busiest transportation facility – into a world-class, 21st century transportation hub, as part of the proposed Empire Station Complex redevelopment of the surrounding blocks of Midtown Manhattan.

The MTA, Amtrak, and NJ TRANSIT are working together to establish a framework that would unify the separate railroads' concourses into one state-of-the-art, open, light-filled space through two fundamental approaches following a year-long strategic re-envisioning process, supported by FXCollaborative and WSP.

Both options under consideration would unify the current separate concourses of the LIRR and NJ Transit into one. Madison Square Garden would remain in all proposals, but the current space occupied by the Hula Theater could be removed to create a grand daylighted entrance hall fronting 8th Avenue.

In December, the 255,000-square-foot Moynihan Train Hall was opened for Amtrak and LIRR passengers in the 100-year-old James A. Farley Building (the old post office) located west of Penn Station. A new 7th Avenue entrance, opened to the LIRR Concourse under 33rd Street, as the concourse is currently under renovation with completion scheduled for the first quarter of 2023.