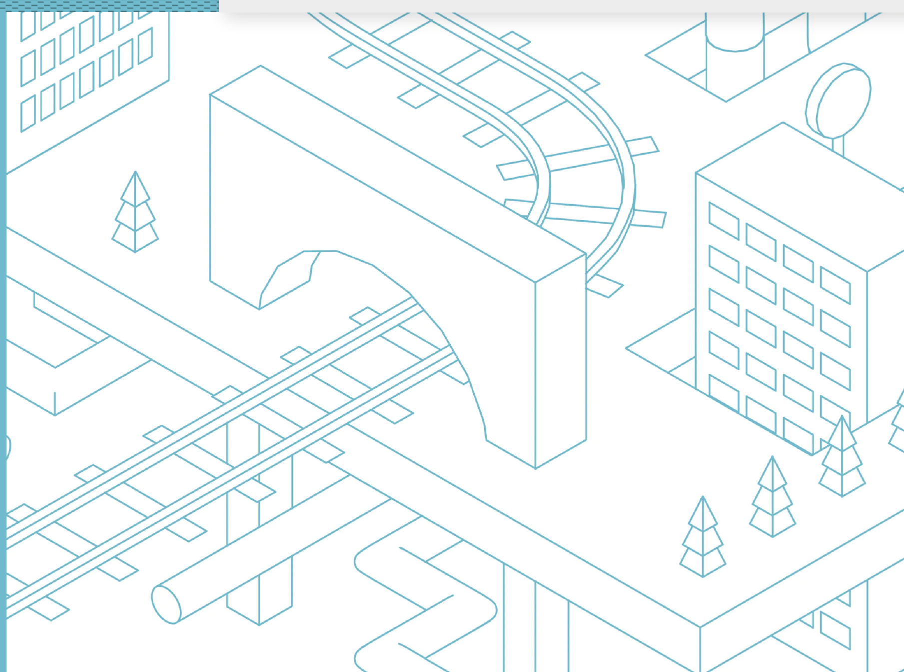
Jan 2021

Infrastructure for Recovery and Renewal

How a Federal Infrastructure Program Can Lift the New York-New Jersey-Connecticut Metropolitan Region

The nation's recovery demands an infrastructure program that creates jobs, reduces racial and economic inequality, builds healthier communities, and prepares the U.S. for climate change and public health emergencies.



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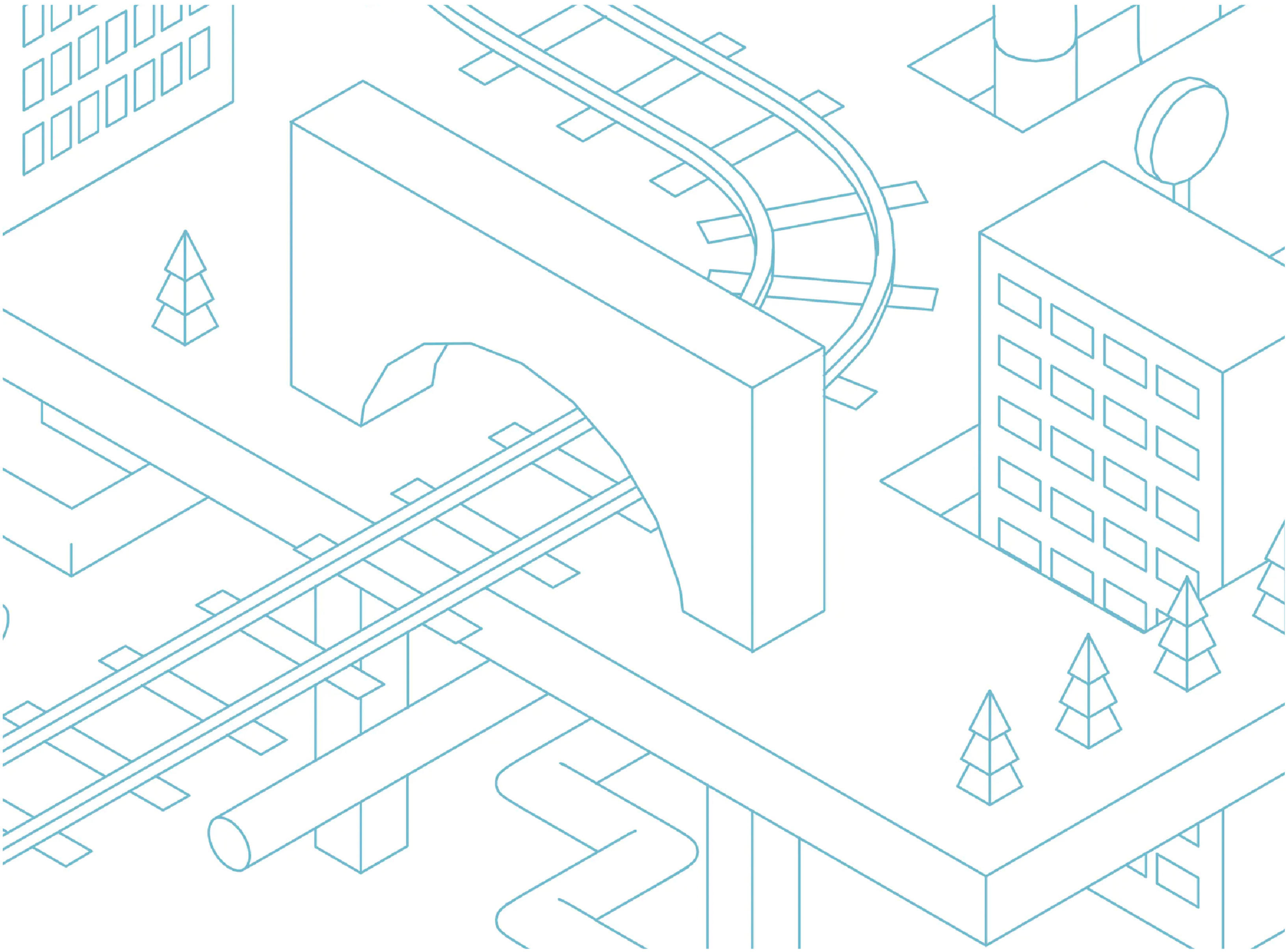

The incoming Biden administration and Congress are rightly focused on immediate assistance to keep people, businesses, and government surviving and functioning. Until widespread immunization brings the COVID-19 crisis under control, the next order of business will be to reinvest in the human, physical, and technological capacity of the nation to revive the economy and create a more prosperous, equitable, and sustainable future. More simply, the imperative is to implement the President-elect's directive to "build back better."

A central pillar of recovery will almost certainly be long-awaited federal legislation that provides states, localities, and regional authorities with resources to modernize the nation's aging infrastructure. This may be our best opportunity to reinvigorate the economy while addressing structural inequities and inefficiencies. We need to go big and bold and set priorities that build on identified needs and existing plans and projects.

These priorities should be guided by a few fundamental objectives:

1. Maximize job creation with "ready to go" projects
2. Improve productivity and the capacity for sustained economic growth
3. Create healthier living environments, particularly for those harmed by environmental injustices
4. Expand opportunity and reduce racial and economic inequality
5. Reduce greenhouse gas emissions
6. Strengthen resilience to climate change, future pandemics, and disasters

A national infrastructure program will give every region across the country an opportunity to rebuild their economies and meet these objectives with investments targeted to their particular needs and strengths. Regional economies are the engines that drive national wealth creation and support urban, suburban, and rural communities that connect people to jobs and opportunities.

This report was produced in partnership with:

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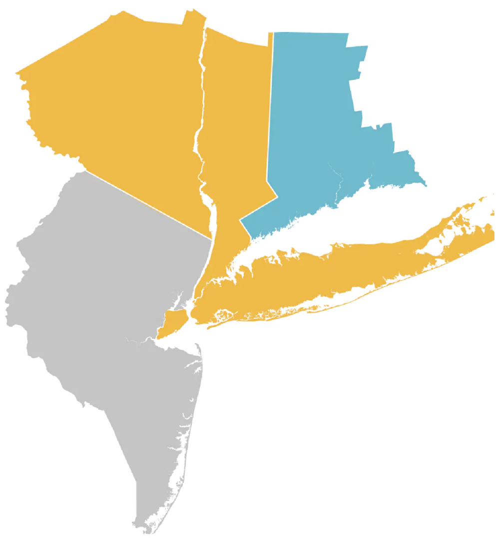


The New York-New Jersey-Connecticut metropolitan region, which bore the brunt of the first wave of the COVID-19 pandemic and suffered one the steepest economic declines, generates 10% of U.S. GDP and 13% of federal income tax revenues.

Its recovery is essential to restoring the nation's economy. It also has unique assets and challenges that must be taken into account. These include greater reliance on public transit than any other region, the largest concentration of federally-supported public housing, some of the most pronounced income inequality and racial segregation in the U.S., and 3,700 miles of vulnerable coastline.

To meet the six objectives stated above, a federal infrastructure program should incorporate the following components:

1. Fill short-term gaps in operations and maintenance budgets
2. Fund existing capital programs
3. Expedite transformational projects

Even before new infrastructure legislation is enacted, there is much that a new Biden administration can do to expedite essential projects. New York's groundbreaking congestion pricing program, which would generate enough revenue to fund as much as $15 billion in capital expenditures, has been stalled because the U.S. Department of Transportation has not provided clarity on the federal environmental approval process. Amtrak's Gateway program, the most important infrastructure project in the nation, has been held up even longer waiting nearly three years for a record of decision on its environmental impact statement.

1

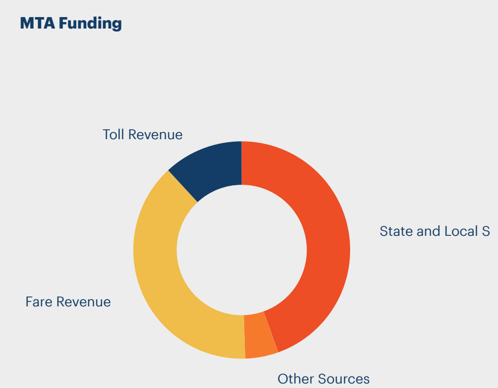
Fill Operations and Maintenance Gaps

Emergency operating aid is necessary for any plan to spur capital investment. Without it, thousands of additional jobs will be lost, agency finances will be decimated and unable to support debt service for capital investments. In addition, deferred maintenance will lead to the deterioration of physical assets, increasing the cost of maintaining these assets in a state of good repair.

The tri-state region's transit agencies have been hit particularly hard. Ridership and fare revenues plunged due to stay-at-home orders and business closures. The Metropolitan Transportation Authority (MTA), which runs downstate New York's subways, city buses, and commuter rails (including the New Haven line vital to Connecticut's economy), has increased costs in order to keep trains and buses safe and maintain service for essential workers who have no alternative to transit.

After receiving $4 billion in federal aid in December, 2020, the MTA narrowly avoided planned cuts that would have laid off 9,367 people, and cost the region as many as 450,000 jobs and $50 billion in lost earnings. The agency is still in dire need of additional federal support, projecting a deficit of $12 billion by the end of 2024.*

Similar situations could be in play for other agencies in 2021.



*NYU Rudin Center for Transportation. Economic Consequences of Proposed Pandemic-Related Cutbacks in MTA Transportation Services and Capital Spending. (October 28, 2020).

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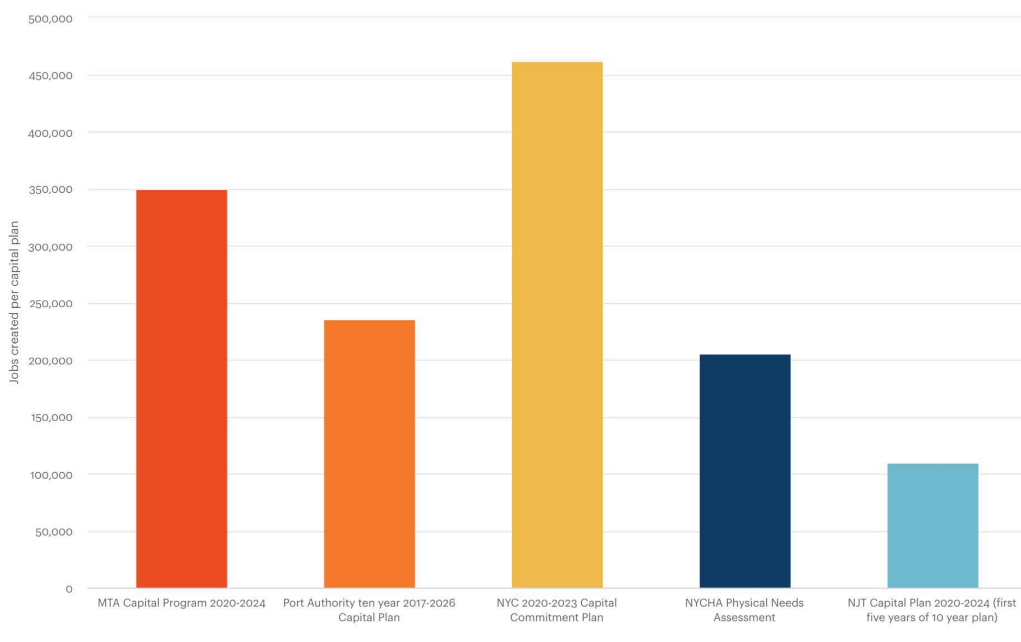
Fund Existing Capital Plans

The quickest way to meet multiple objectives of infrastructure legislation is to start with the existing capital plans of state agencies, city agencies, and regional transportation authorities. In the tri-state region, the MTA, New Jersey Transit (NJT), the Port Authority of New York & New Jersey (PANYNJ), the City of New York and the New York City Housing Authority (NYCHA) have all issued ambitious capital plans.

If fully funded and implemented, these capital investment programs would generate an estimated 263,000 jobs per year from construction, purchases of materials and services, and increased purchasing power of those employed.

Estimated Years of Full-Time Employment per Major Capital Plan in the Tri-State Region



Except for NYCHA and NYC's Capital Commitment Plan, job multipliers are based on reports issued for each plan. Most multipliers range in between 6,108 and 6,863 jobs created for every 1 billion dollars spent on capital projects. The NJT Capital Plan uses the same IMPLAN methodology and gets very similar results to the MTA study—6,533 jobs per billion in expenditures. The estimates for NYCHA's jobs are based on the $31.8 billion physical needs assessment minus the commitment of $1.34 billion through the NYC 2020–2023 Capital Plan. Assessment based on analysis by the McHarg Center at UPenn: New Green Deal for NYCHA (2019) using the Regional Input-Output Modeling System (RIMS II).

A review of the capital plans by the Robert F. Wagner Graduate School of Public Service at New York University (NYU) shows how they would advance the following priorities for infrastructure legislation.

These plans are the product of extensive planning, public scrutiny, and both legislative and regulatory review and approvals. The lion's share of planned expenditures are for projects either already under construction, approved for implementation or for ongoing maintenance and systems upgrades. Projects identified as "shovel ready" include subway signal modernization, new rail cars and buses, station accessibility improvements, and basic plumbing, heating and elevator repairs in public housing.

Approximately $37 billion in the MTA's 2020–2024 capital plan and $16 billion in NJ Transit's five-year capital plan are for these types of "ready-to-go" projects.

MTA New York City Transit

Subway Signal Modernization

No investment is more critical to safe, reliable subway service than modernizing the subway's outdated signal system. It is the centerpiece of the campaign to restore and transform the system launched by the MTA and the Governor in 2018, building on years of planning. Line-by-line reconstruction of the signal system has been underway for years. It may not continue without a fully funded capital program. The 2020 – 2024 plan would invest $7.1 billion to modernize segments of six subway lines, doubling the number of track miles with new signals, which would serve more than 50% of passengers.

SUSTAINED ECONOMIC GROWTH

In addition to immediate job creation, modernization of the region's infrastructure is critical to improving productivity, remaining competitive in the global economy and creating the capacity for future economic growth. Projects such as the next phase of the Second Avenue Subway and the Penn Access project connecting Metro-North services to Penn Station would greatly expand growth capacity and improve access to jobs. An economic impact study of NJT's capital plan by Rutgers University describes how proposed investments would improve the locational advantages and worker productivity for businesses, property values for homeowners, and the state's long-term growth trajectory. Other studies have demonstrated the economic value of capital investments in transit, housing, parks, and public spaces.

Westbound Waterfront Connector

Just East of Harrison, New Jersey, NJ Transit trains traveling West from Hoboken or the Meadowlands Maintenance Complex to Newark Penn Station are forced to make
a series of movements including crossing two extremely busy tracks of the Northeast Corridor, which causes serious service disruptions and delays. By building the Westbound Waterfront Connector, estimated to cost $474 million and included in NJ Transit's recently released five-year capital plan, those trains will instead cross above the Northeast Corridor via a new bridge to make their connection into Newark Penn Station. Improving the speed, reliability, and safety of this connection would decrease travel times on three lines, provide a better customer experience, take cars off the road, and improve air quality across NJ Transit's considerable network in the area.

HEALTHIER LIVING ENVIRONMENTS

From improving air quality to removing environmental hazards, projects funded by the capital plans would improve health for most of the region's residents. Some, such as lead abatement in NYCHA buildings and the purchase of electric buses often stored in low-income and predominantly Black and Latinx neighborhoods, would alleviate long-standing environmental injustices that contribute to the region's health inequities. The disparate impacts of the COVID-19 pandemic make this an even greater imperative.

NYCHA Lead Removal

The condition of NYCHA developments, New York City's largest and most affordable housing stock, has degraded significantly in recent years. As described in RPA's analysis of NYCHA's crisis, Time to Act, the cost of not addressing these deplorable conditions would exceed even the current $45 billion estimate of NYCHA's physical needs. NYCHA's agreement with the Federal monitor contains several concrete rehabilitation obligations, including an abatement of all lead-based paint throughout its 175,000-unit portfolio over the next 20 years. In addition to these obligations, there are countless other repairs needed in almost every development, with NYCHA's latest five-year capital needs assessment being $31.8 billion. Despite this, NYCHA's 2019 — 2023 capital program is only $6.4 billion. While buildings can be repaired, health impacts from lead paint, mold, and other hazards often have lasting damage, and it is imperative that we return the portfolio to a state of good repair as quickly as possible.

OPPORTUNITY AND EQUALITY

The capital plans would restore the structural integrity, reliability, and safety of the public transit, housing, parks, and other systems low- and moderate-income residents rely on for affordable housing, access to jobs, and neighborhood amenities. Several projects within them would also expand access to opportunities by expanding bus and rail service to neighborhoods poorly served by transit or suburban job centers, making subway stations and other public services more accessible to people with physical or mental impairments, or creating incentives for transit-accessible jobs or housing.

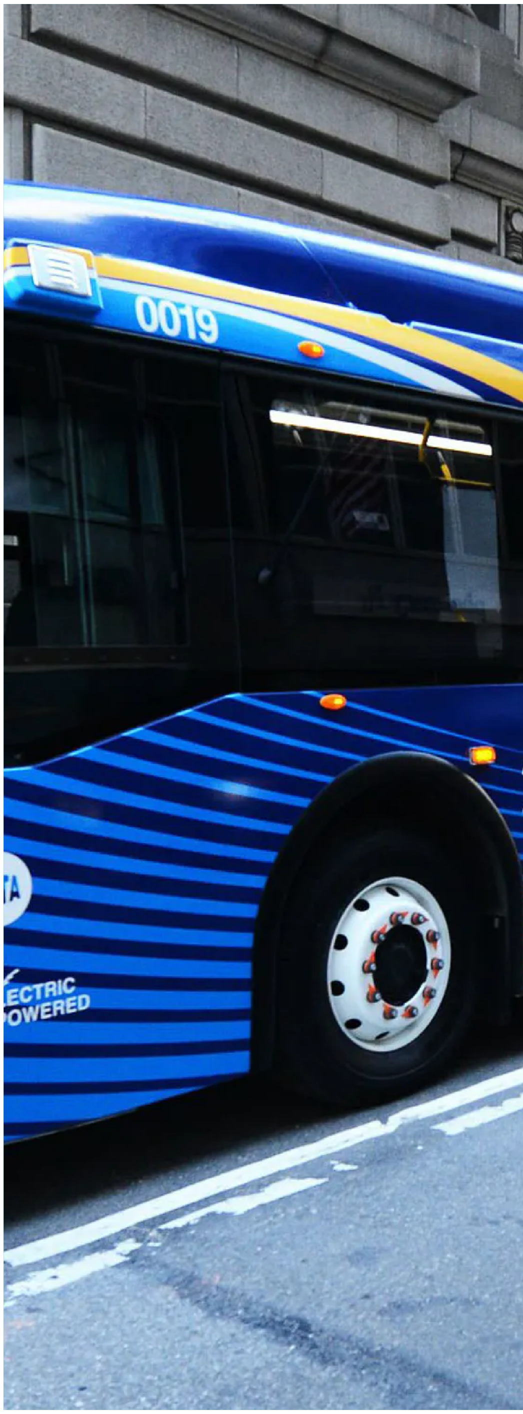
MTA New York City Transit

Station Accessibility Enhancements

The MTA capital plan would make 70 subway stations ADA-accessible, a $5.1 billion investment that would result in accessible stations that would serve more than 60% of subway passengers with new elevators, ramps, and other improvements. Customers who depend on the subway to access the city's jobs and services would be no more than two stations away from an accessible station. The enhancements would benefit more than passengers with physical impairments — they would create healthier, safer station environments with improved circulation that would benefit all users and make the entire system more customer-friendly.

GREENHOUSE GAS REDUCTION

The greater New York metropolitan area is the most energy-efficient region in the United States, a product of its density, robust transit network, and low rates of automobile use. Yet it still has a long way to go to meet required state and city greenhouse gas emission reduction limits. Capital investments in the region's transit system will ensure a more modern system with increased ridership, while spurring opportunities to develop new and retrofitted energy-efficient buildings in communities around the improved transit system. These investments will help to cut greenhouse gas emissions by further reducing automobile use, electrifying buses and trains, modernizing inefficient equipment, and upgrading buildings to greater levels of efficiency.



MTA New York City Transit

Electric Buses

Both the MTA and NJT have undertaken ambitious programs to electrify their bus fleets. These efforts are critical to the incoming Biden administration's goal of zero emissions from public transportation for large cities but are likely to be significantly scaled back without substantial federal funding. While the MTA now operates just 25 electric buses, the MTA five-year capital plan has budgeted $1.1 billion for 500 additional electric buses and modernizing eight bus depots to better serve electric buses and reach its goal of electrifying its entire fleet by 2040. NJT's ten-year capital plan includes over $4 billion to electrify its entire fleet, including new buses and modernized bus garages. Fleet electrification is particularly critical to cleaning the air and improving health in low-income neighborhoods and communities of color where bus depots are often located and rates of asthma and other respiratory diseases are high.

In its 2017 Fourth Regional Plan, RPA identified $27 billion in unfunded projects needed to make the region more resilient to climate change. Many of these projects, from storm protection for critical infrastructure to stormwater management for city neighborhoods and NYCHA developments, are contained within the capital plans. The COVID-19 pandemic has shown the definition of resilience needs to include healthier communities with the ability to recover from the outbreaks of disease. Climate impacts tend to have greater consequences for communities of color and those with less wealth, and the same is true of the pandemic. Investments in resilience need to reflect this new reality and ensure that buildings, infrastructure and public spaces are as climate — and pandemic — proof as possible.

HATS/Coney Island Creek

In early 2020, funding was suddenly and unexpectedly pulled from the consequential U.S. Army Corps of Engineers Harbor and Tributaries Study (HATS), the only comprehensive, region-wide study focused on resilience. Funding HATS again would resume the study and could result in future federal funds for numerous projects, such as the Coney Island Creek Tidegate. This nearly $1 billion project would strengthen the edges of the Coney Island neighborhood, and use wetland construction and a tidal barrier or dam across the Creek to control storm surge and mitigate flooding. This would also improve access to open space and water quality. Critical infrastructure in the area includes the Coney Island Hospital, NYCHA developments, MTA Rail Yards, and NY Aquarium.

Jim Henderson

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Expedite Transformational Projects

A national infrastructure program is an opportunity to advance projects and concepts that would fundamentally transform transportation, energy, communications, and the public realm. We can take a page from the New Deal. During the 1930s, a combination of shovel-ready projects and federal funding were combined to help lift the region out of the Great Depression and shape much of the infrastructure we still see today. We consolidated our subway from three systems into one, constructed our first public housing developments, and built iconic structures and places from the Triboro Bridge and the Palisades Interstate Parkway to schools, libraries, parks, and pools that made neighborhoods healthier and more livable for generations to come.

The federal government can be a partner to states and cities in many ways including providing funding, expediting necessary approvals and studies, and providing support and guidelines for inclusive planning processes to generate new community-based visions and investments. This partnership will be necessary to transform interlocking infrastructure systems to meet the challenges of creating an equitable and climate-resilient economy, including the following:

- Providing reliable, affordable internet service to all households
- Upgrading the energy grid to provide the clean power needed for cars, trains, buses, and buildings to be powered by electricity
- Building the renewable energy and electric vehicle charging infrastructure needed to meet greenhouse gas reduction targets
- Reinventing streets and other public spaces to promote better health, quality of life, and civic engagement

In the short term, existing transformational projects could be advanced by removing federal roadblocks that have been holding these efforts back. Three of these — the Gateway/Penn Station program, congestion pricing and offshore wind – are described below. Other projects, such as the much needed replacement of the Port Authority Bus Terminal, do not fit well into existing federal transit funding formulas. Consideration should be given to creating new regional or multi-state federal funding opportunities to broaden the number of projects with clear regional and national benefits that could receive federal funding outside of traditional formula funding. Federal guidelines and funding should also support local partnerships to identify both small and large scale projects as part of an equitable public works program.

GATEWAY AND PENN STATION

Amtrak's Gateway Program, a comprehensive rail investment program for the most heavily-used section of the Northeast Corridor, is known as America's most critical infrastructure project. The corridor, a vital link for an area that represents 20% of the U.S. economy, is in dire need of repair and has no capacity to support economic growth. While failure to modernize would lead to an eventual mobility crisis, its completion would unlock a bottleneck to the Northeast economy, create billions of dollars annually in economic growth, and reduce greenhouse gas emissions by providing an alternative to auto and air travel.

Now nearly three years past the U.S. Department of Transportation's own internal deadline, the Gateway Development Corporation (GDC) is still waiting for the U.S. DOT to issue the Record of Decision (ROD) on the Environmental Impact Statement (EIS) for the Hudson Tunnel project.

The Record of Decision would enable final planning and important pre-construction work to begin on a new rail tunnel under the Hudson River to allow for the full rehabilitation of the 110-year-old existing tunnel. The Final Administrative Draft of the EIS was originally produced in only 22 months — less than half of the usual time for a project of this size. GDC and partners have been waiting 34 months for a ROD on their work. In addition to enabling final pre-construction work, a ROD would unlock over a billion dollars already allocated to Amtrak from Congress for Northeast Corridor improvements. This could be used for the Hudson Tunnel Project and would improve the chances the project would meet requirements for the Capital Investments Grants (CIG) program.

Other phases of the Gateway program include an expansion and major renovation of Penn Station, an essential investment to handle the increased passengers that Gateway and Penn Access would bring to the already over-crowded station. Along with the recently opened Moynihan Station and emerging plans for redesigning and expanding the entire transit hub, now called the Empire Station Complex, this would make these combined investments the most transformative transportation projects in the nation.

CONGESTION PRICING

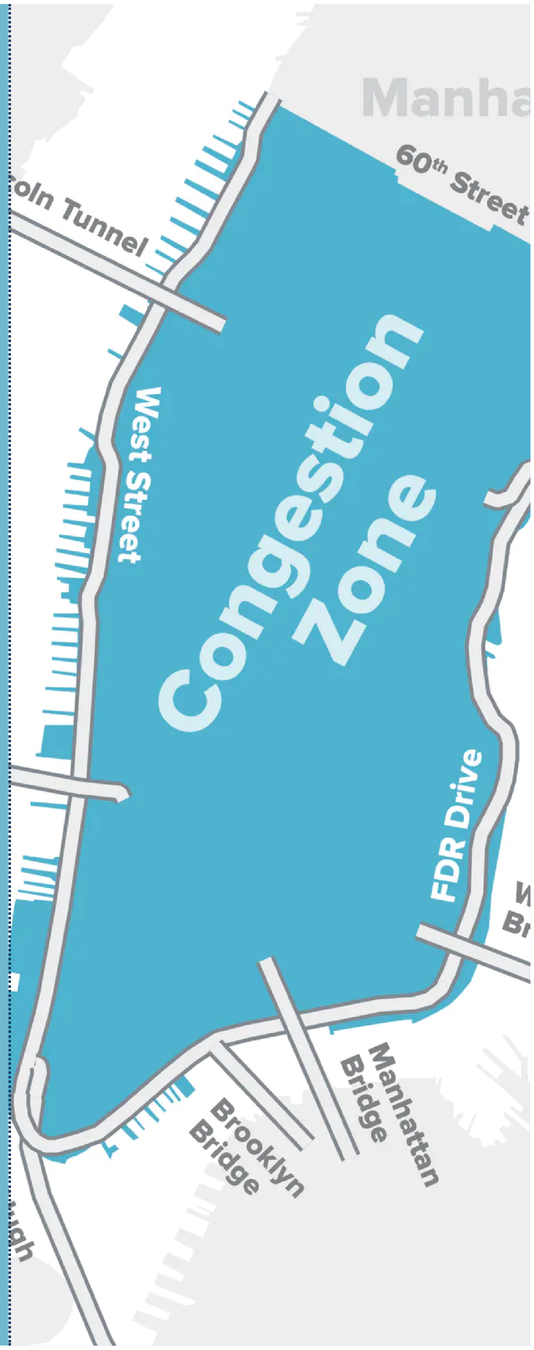
In 2019, New York State enacted legislation that would make New York City the first American city to do what other cities internationally have successfully done — use motor vehicle charges in the central business district to reduce congestion, improve transit, and reduce air pollution. The program is essential to funding the MTA's capital plan, and could be a model for other U.S. cities to emulate.

RPA Campaign

Congestion Pricing and Fixing the Subways

Originally scheduled to start on the first of this year, the program has been stalled as the MTA waits for responses from U.S. DOT on their environmental review requirements.

The MTA has been trying to determine if they would need an EIS or a shorter Environmental Assessment to move the project forward. The delay by U.S. DOT over environmental procedures is especially frustrating since congestion pricing has numerous positive environmental impacts including reducing emissions through funding public transit improvements and reducing traffic. The MTA has previously stated they have met with U.S. DOT officials at least 20 times to resolve the matter, without success. Its delay threatens the $15 billion in capital expenditures that congestion pricing was to support.

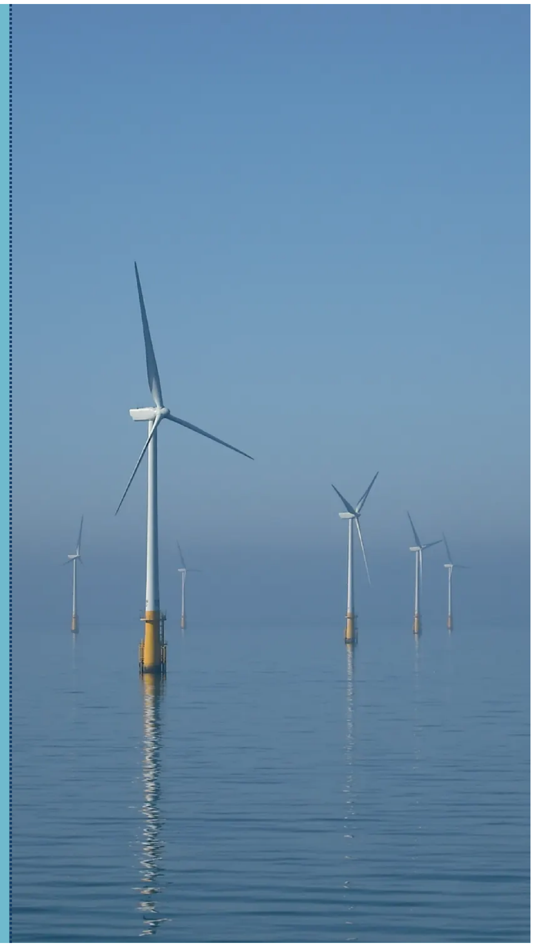


OFFSHORE WIND

Offshore wind development in our region holds great promise — as a source of clean and renewable energy to ensure we hit our climate targets and as a new industry that puts our waterfronts back to work, creating thousands of new, green jobs while generating increased tax revenue. The federal government has an important role to play to ensure our region realizes the potential of this industry.

The federal permitting process for current offshore wind development projects in all three states should be completed swiftly.

The U.S. government should also open up the next federal leasing areas offshore to insure a reliable "pipeline" of projects into the future. Government investment in infrastructure that supports offshore wind development — including in ports and associated facilities — will boost our regional economy, laying the groundwork for a thriving domestic industry.



Andy Dingley

AN EQUITABLE PUBLIC WORKS PROGRAM

Beyond existing projects, funding and an inclusive process for a public works program could create a new generation of infrastructure and public spaces that supports equitable growth throughout the region. Elusive goals such as universal internet access, high quality neighborhood parks, schools and libraries, and redesigned streets could all be advanced. Proposals such as RPA's Five Borough Bikeway could simultaneously improve air quality, health, job access and quality of life for poorly-served neighborhoods.

An infrastructure program should provide states, cities, and regions with resources and incentives to develop new proposals and priorities from an inclusive

process that empowers—or rather *co-powers*—communities of color, immigrants, and low-income residents to shape the neighborhoods they live in.

RPA Campaign

Reducing Segregation & Inequality Across the Region

Inclusive Growth

One example is the New York City Inclusive Growth Initiative, a collaboration of the New York City Employment and Training Coalition, the Association for Neighborhood and Housing Development, and Regional Plan Association. The initiative works to ensure recovery policies geared toward economic development, workforce training, and affordable housing benefit those who need it most and contribute to an equitable recovery. The agenda will be developed by a steering committee of emerging leaders who represent the diversity of the city.

Time to Act

If designed properly, a national infrastructure program encompassing transportation, housing, and resilience to climate change can address three glaring needs at once.

It can begin to rebuild our crumbling infrastructure, address long standing inequities in the built environment, and stimulate the economy. Infrastructure affects virtually every aspect of our lives including health, safety, and access to jobs and opportunity. Few programs would have such a widespread positive impact on the nation. The key components of a successful infrastructure program — the capital plans of cities, states, and state agencies — are already in place and need only be fully funded.

Today's national infrastructure program should emulate the New Deal by spending an ample amount of federal funding and starting with existing plans. It also needs to leave room for new ideas that will shape the future. As the infrastructure projects of the 1930s structured how our region looks and operates today, the projects we carry out today will structure how our region looks and operates for future generations.

Acknowledgements

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Special Thanks

RPA thanks Benjamin Heller, Ingrid Gould Ellen and Sherry Glied of the New York University Robert F. Wagner School of Public Service for their analysis of region's capital plans, which was essential to the findings and conclusions of this report.