MAKE TRANSFORMATIVE INVESTMENTS FOR A MORE RESILIENT FUTURE
Local decision-makers across the U.S. have expressed the need to ensure that the COVID-19 crisis does not sideline their progress toward improvements to the quality of life of their residents through community-serving infrastructure. In fact, the current crisis presents an opportunity to build back better and underscores the need to invest in resilience across all types of infrastructure, to advance technologies and programs that will improve social equality, public health, and environmental quality, and to make institutional reforms that improve the local-state-federal alignment.

To sustain progress toward local officials’ visions of the future, the NPI recommends that Congress:

1) Establish an infrastructure planning council at the federal level to coordinate the many agency policies, regulations, and funding programs. 2) Increase funding and eligibility for already successful federal broadband programs. 3) Support the proactive development of resilient and sustainable infrastructure projects with accelerated depreciation. 4) Expand federal tax incentives and funding for electric vehicle purchases. 5) Establish a list of pre-approved federal variance activities and expand applicability of previously approved variances. 6) Increase the WIFIA financing program’s administrative and financial capacity. 7) Establish national complete streets design principles. 8) Expand installation of electric vehicle charging infrastructure. 

These policy recommendations will establish a foundation for a more equal and more innovative future, and if adopted will:

» Provide widespread access to necessary infrastructure, like broadband.
» Provide tools to develop climate-resilient infrastructure.
» Improve public health and environmental quality by electrifying our transportation infrastructure.
» Create clean jobs.
» Improve access to safe drinking water.
» Create safer streets for pedestrians and cyclists.
» Create more equitable cities by investing in underserved communities.

Summary

THE PROBLEM

Resilience is defined as a community or infrastructure asset’s ability to withstand and rebound from an event, setback, or challenge. Resilience has emerged as a key priority for local decision-makers across the country amidst the pandemics. Local decision-makers have expressed concern for their communities to rebound from this crisis, but also the need to ensure that they are well prepared for and are able to limit the health, economic, and social impacts of future challenges. Further, local officials must continue to advance and improve the quality of life of their residents through modernized community-serving infrastructure.

"Instead of trying to build back exactly what we had, how do we build back a fairer place, one that has more opportunities for more people?"

Mayor Andy Berke
Chattanooga, Tennessee
RECOMMENDATION #19:

Establish an infrastructure planning council at the federal level to coordinate the many agency policies, regulations, and funding programs.

Outcome(s): De-silo infrastructure policy to make smarter investments in the diverse, but equally vital range of needs imposed by state and local governments.
Between the millions of people relying on telemedicine and working and studying remotely, the response to COVID-19 has heightened the already significant need for increased access to fast, reliable broadband internet. The United States ranks 20th in the world for internet speeds and 14% of the households where K-12 students are learning remotely during the pandemic lack access to wired-broadband. This is felt particularly by minority populations, a third of which do not have access to computers or broadband in their homes. To help close the already significant “Digital Divide”, the federal government should quickly boost its most successful programs to expand internet connectivity. The E-Rate program is managed by the Universal Service Administrative Company (USAC) on behalf of the Federal Communications Commission (FCC) to support fiber deployment to community anchor institutions like schools and libraries. E-Rate, which currently limits eligible projects to wired connections and WiFi equipment, should be expanded to allow funding for mobile hotspots so students at all levels can work from home. Similarly, the Lifeline program, which provides phone and internet service to low-income households during times of need and disaster, must also update its guidelines to benefit this particularly challenging time. For example, individuals usually confirm eligibility for Lifeline via their registration through SNAP nutrition and other federal programs. These eligibility certifications should be simplified, especially as millions of Americans become unemployed and lose eligibility for other programs tied to Lifeline. In addition, the Lifeline program hasn’t been updated to allow qualified households to obtain fixed broadband and mobile service, both of which are vital to function effectively in modern life. These are quick improvements to existing, successful programs that will expand Americans’ access in the short-term so they can apply for jobs and unemployment benefits, work and study remotely, and receive virtual medical care. To prepare for the next crisis and the next generation economy, however, this must be paired with long-term investments in a more robust broadband network through a range of delivery models and technologies.
POLICY RECOMMENDATIONS
Accelerate the Development of Resilient and Sustainable Infrastructure

RECOMMENDATION #21:
Support the proactive development of resilient and sustainable infrastructure projects with accelerated depreciation.

Outcome(s): Financial feasibility for resilient and sustainable infrastructure projects, long-term community and environmental benefits.

One challenge of financing resilient and sustainable infrastructure is that projects like green stormwater innovations to reduce flood risk or renewable energy installations such as micro-grids, solar installations, and wind farms, require hefty up-front capital costs. Over time, however, these projects generate cost-savings and provide societal and environmental benefits, such as reduced energy and resource use, improved environmental quality, and diminished greenhouse gas emissions to curb the impacts of climate change. For example, the Metropolitan Water Reclamation District of Greater Chicago has begun work on the McCook Reservoir, which will have a storage capacity of 10 billion gallons of water and is estimated to provide $114 million annually in flood reduction benefits to Chicago residents. To support local proactive development and delivery of these projects to provide longer-term benefits to local communities, the federal government can reduce the financial burden of these investments by allowing accelerated depreciation for resilient and sustainable infrastructure projects. Typically, an owner of a physical asset can offset some of the tax burden of that investment by accounting for the depreciation of that asset over the course of its expected life. Accelerated depreciation allows developers to account for more of this depreciation expense earlier in the asset's life, making it more financially feasible and attractive and encouraging the use of public-private partnerships where appropriate. In the long-term, scaling resilient and sustainable infrastructure projects can directly decrease operating costs while reducing the financial burden of an increasingly greater amount of costly disasters exacerbated by climate change. Resilient and sustainable investments will also help offset the costs of environmental degradation, which is estimated to cost the U.S. economy roughly $240 billion per year. Particularly under the financial constraints of the moment, accelerated depreciation would incentivize these investments and make them more attractive to private investors to help cities build back smarter, cleaner, and more resilient. Further, when compared with traditional energy sector spending, investing in clean energy technologies can generate considerably more jobs due to its labor-intensive nature.
POLICY RECOMMENDATIONS
Accelerate the Development of Resilient and Sustainable Infrastructure

RECOMMENDATION #22:

Expand federal tax incentives and funding for electric vehicle purchases.

Outcome(s): Continue to incentivize production and purchasing of EVs, support sales of U.S.-based vehicle manufacturers, support local transitions to zero emission fleets.

To reduce localized air pollution and greenhouse gas emissions, cities across the U.S. must support and create an entire ecosystem for electrification of transportation, including private vehicles, buses, and trucks. To continue incentivizing the purchase of electric vehicles, the federal government should increase the value of and extend existing EV tax credits and create new incentives for car owners to trade in their standard combustion-engine cars for EVs. The federal government should increase the current individual EV tax credit to $10,000\(^5\) for vehicles priced at $60,000 or less and allow it to extend through 2023, as opposed to the existing cap of the first 200,000 vehicles sold per manufacturer. Further, the federal government should introduce a new monetary incentive for drivers by offering a $10,000 rebate to car owners who trade in gas-powered cars for EVs.

Simultaneously, transportation agencies and school districts need financial support to continue to meet their long-term goals to electrify bus fleets and reduce the burden of poor air quality on low-income and minority communities. LA Metro has committed to fully transitioning its bus fleet to zero emission technologies by 2030. Increasing available federal funding through the Low-No program for transit agencies and school systems will alleviate the burden of the upfront capital costs of these purchases in the current economic context. Further, directing funding through DERA to phase-out diesel trucking fleets can drastically accelerate the transition to electric freight and reduce particulate air pollution in communities that are proximate to highway freight corridors. These investments would serve to, and should specifically be directed to, improve air quality in underinvested minority communities that are disproportionately impacted by poor air quality.
The abundance of lead service pipelines that carry drinking water to households persist as a major threat to public health in the U.S. and contribute to systemic racial inequality in the country. As of 2019, 9.3 million homes in the U.S. are still equipped with lead service lines, and the vast majority of the child population with blood samples that exceed lead toxicity levels are from Hispanic or African-American origins. Despite the increasing public awareness of the severity of the matter and the Drinking Water State Revolving Fund (DWSRF) program that was founded in 1996, the requirement that cities apply for regulatory variances—approvals to deviate from state or federal rules—is a major roadblock to achieving nationwide lead abatement in a timely manner. Denver Water in Colorado has started to implement a plan to replace all lead service lines over an accelerated 15-year period, changing their approach from a previous plan that would have taken over 50 years to complete. The program will be financed by customer rates, bonds, and sales of new connections to the system. However, it took Denver Water 14 months to apply for and receive the state and federal variances needed to continue the lead abatement project. As demonstrated by this example, cities are committed to replacing lead pipes to improve public health in their communities but facing regulatory hurdles that delay lead abatement projects. The federal government should help local decision-makers meet their goals by 1) Establishing a list of pre-approved variance activities, and 2) Expanding the applicability of previously approved variances. Much like the list of activities that are pre-determined to warrant a Categorical Exclusion in National Environmental Policy Act (NEPA) compliance process, the EPA should develop a list of activities that are in effect pre-approved for cities and states to adopt to pursue lead abatement activities, eliminating the need to apply for a variance and thus minimizing the regulatory burden. Additionally, once a variance is approved by the EPA, in states and cities where applicable, the same variance should be available to the local governments who can utilize it in order to accelerate water system improvements. These regulatory adjustments will help local officials to improve water infrastructure at a faster rate and provide safe drinking water to their communities.

RECOMMENDATION #23:

Establish a list of pre-approved federal variance activities and expand applicability of previously approved variances.

Outcome(s): Accelerate lead abatement in potable water distribution systems and achieve nationwide access to safe drinking water.
Funding and financing U.S. water infrastructure improvements remains a high priority challenge. The Environmental Protection Agency (EPA) estimates $744 billion in capital costs are required over 20-years to meet Clean Water Act (CWA) and Safe Drinking Water Act (SDWA) requirements. EPA administers the WIFIA financing program, which provides direct low-cost loans to municipalities to partially fund eligible projects with the objective of attracting private capital. However, WIFIA is not staffed or capitalized to meet the current need for water infrastructure repairs across the country. In 2019, the EPA received interesting WIFIA from 62 project sponsors, ultimately only inviting 39 of them to apply for WIFIA financing. The federal government needs to increase both administrative and financial capacities of the program to alleviate the outstanding backlog of repair and improvement projects in the U.S. water infrastructure sector. In addition, the federal government should increase program capabilities, where both potential and rejected WIFIA applicants are given guidance and assistance toward developing financeable projects in order to increase the invitation rate of the projects that submit letters of interest. This would significantly improve project readiness and following a ramp-up period would create industry benchmarks that will increase overall structure and readiness of new projects interested in WIFIA financing. Through increased resources in both administrative and financing capacities, the EPA can significantly accelerate the improvement of water infrastructure across the country, resulting in improved public health and environmental outcomes.
The COVID-19 crisis has restricted mobility across the country and the absence of regular commutes and movement around urban and rural areas alike has drawn attention to the ways we design and use roadways in our communities, who these assets serve, their overall purpose, and particularly, the disparity in the state of these assets in traditionally under-invested in communities. In effect, the crisis has presented an opportunity to reinvent the right-of-way to better serve communities and residents. Local officials have traditionally been at the forefront of reimagining how right-of-way space is used to accommodate cars, buses, pedestrians, cyclists, and emerging mobility users, and how the right-of-way can be used to meet the city’s social and economic goals. The City of South Bend’s Smarter Streets Ahead Program transformed the city’s downtown by turning one-way roads into two-way thoroughfares, narrowing roadways to slow the speed of traffic, widening sidewalks, and introducing roundabouts. The program helped to transform both the experience for users—drivers, cyclists, pedestrians—and the economic and social landscape of the city, which in turn attracted more than $90 million in economic investment. The federal government should coalesce the vast knowledge that local officials have in implementing innovative complete street programs and create a set of complete streets design principles that incorporate elements that address racial equity and future climatic conditions, like the urban heat island effect and stronger storms. It is important that cities adopt forward-looking design standards and it is especially crucial that these standards are applied in minority and low-income communities where residents are often disproportionately impacted by climate-related impacts. The set of complete street design principles, which will not be made obligatory for cities to follow, will support nationwide knowledge sharing, best practices, and support local officials to make streets safer, friendlier, and ultimately bolster economic revitalization and alleviate racial inequality.
POLICY RECOMMENDATIONS
Reinvent the Right-of-Way

RECOMMENDATION #26:

Expand installation of electric vehicle charging infrastructure.

Outcome(s): Improved availability of charging infrastructure across state lines.

Stemming from the 1956 law creating the interstate national highway system (NHS), FHWA rules prohibit economic activity at rest stops on the NHS, which has been interpreted to include the selling of electricity via EV charging stations. The rules have hampered the ability of states and cities to install charging infrastructure along stretches of the NHS in their communities, contributed to consumer range-anxiety, and seeded doubt that the EV charging network will grow to be robust enough to support wide-scale national deployment of EVs, in many ways stalling the deployment of EVs and alternative fuel vehicles. Cities like Los Angeles have made it clear that they want to and will electrify their transportation network to improve the quality of life and health of their residents by reducing localized air pollution and improving environmental quality more broadly. LA has committed to transforming their infrastructure to reduce greenhouse gas emissions by 25% by 2028 via electrification of the transportation sector. The federal government should enable local innovation and signal to local officials and consumers that there is a prosperous national future for EVs by eliminating the prohibition on commercialization, allowing cities and states to install static and dynamic charging infrastructure on the NHS. This will open the door for the broad electrification of the transportation network and may be a big stepping stone toward refining the technology for and deploying electric freight vehicles to both decarbonize the nation’s transportation system and correct for historic environmental justice concerns in economically disadvantaged and minority communities that often live in areas most affected by traffic-based pollution.