

UNIVERSITY OF SOUTH CAROLINA

**National Security Policy Proposal: Investing in America's Critical
Infrastructure to Safeguard Against Foreign Attacks**

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SUMMARY:

This white paper outlines and proposes a strategy to enhance and reconstruct critical components of the U.S. Infrastructure in order to maintain national security and the economy. While infrastructure is commonly overlooked as having defense attachments, it is becoming an ever more important aspect of military operations. Infrastructure also is a broad term so for this proposal we are limiting the scope to “critical infrastructure” which is defined by the Department of Homeland Security as “the vast network of highways, connecting bridges and tunnels, railways, utilities and buildings necessary to maintain normalcy in daily life. Transportation, commerce, clean water and electricity all rely on these vital systems.”¹ These capital projects have defense implications as an attack or failure of any one of them could send the economy crashing and would impact logistics causing delays and weak areas in the defense sector. Significant investments to infrastructure have not been made since the early 20th century during the Great Depression. This policy paper seeks to outline the following strategies to revitalize America’s infrastructure as well as maintaining it in the years after.

1. Implement a sustainable form of federal funding to be used on cyber security, waste and drinking water, transportation, and the electrical grid. Funding shall be increased annually to match inflation rates and shall come from multiple funds to provide for redundancy. The national gas tax should be increased to match present inflation rates and new funding should come from the Department of Homeland Security.
2. Develop accountability standards for maintenance and inspection of systems to insure day-to-day operability.

¹ <https://www.dhs.gov/science-and-technology/critical-infrastructure>

3. Create strategic priority completion goals of issues requiring immediate attention that have the largest impact on national security. Climate factors should be included in this analysis.

BACKGROUND:

Infrastructure in the United States is quite literally in shambles due to lack of funding and oversight in many aspects of the nation's assets. Large scale or sustainable investment in critical sectors has not occurred since the New Deal in the early 1900s which has caused serious gaps and flaws with domestic national security due to logistical issues arising from failures in infrastructure. These flaws were recently recognized by congress with the passing of the historic bipartisan infrastructure bill which makes for the largest investment in critical infrastructure such as transportation since the construction of the interstate highway system, largest ever investment in drinking and wastewater, as well as the largest federal investment to internet connectivity.² While this historic investment is long overdue, it is not substantial enough to fully correct flaws in domestic infrastructure which still leaves gaps in national security. The bill also does not have a sustainability plan for the upkeep and maintenance of newly implemented infrastructure. Without sustainability and accountability, we will see critical aspects of the nation's infrastructure fall back into disrepair leaving flaws for bad actors to take advantage of.

Revitalization of U.S. infrastructure should be treated as a national security priority rather than a debate between the isle of Congress. The strategic importance of infrastructure is not a new issue, but it has grown in recent years due to climate change, innovation especially surrounding new modes of transit as well as cyber, and China's rise. At stake is the United

² <https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/28/fact-sheet-historic-bipartisan-infrastructure-deal/>

States' military readiness, national resiliency, and global competitiveness.³ During the Cold War, President Dwight Eisenhower understood the link between infrastructure and military readiness. As he argued in his 1955 State of the Union Address, "A modern, efficient highway system is essential to meet the needs of our growing population, our expanding economy, and our national security." Eisenhower worked with Congress to create the National Highway System, which enhanced the United States' ability to move troops and evacuate large cities. Infrastructure is also essential for resilience, the ability to recover from adversity. In 2020, the United States experienced 22 weather and climate disasters with losses exceeding \$1 billion each, a new record. Combined costs reached \$95 billion. No person or place is immune to these risks, which aging infrastructure magnifies.⁴

STRATEGY:

1. ENDS

- a. Critical infrastructure in the U.S. shouldn't just be modernized and fixed but needs to be rebuilt with climate change and resiliency in mind for a changing globe. Roads, bridges, tunnels shall be kept in good condition and shall provide redundancy in case of closures for traffic flow and military logistical flow. Airports and seaports shall be modernized with longer runways and deeper channels to allow for new air and sea craft to interface with the U.S. economy as well as aiding in military logistic operations. Electrical grids shall be updated to current standards and should accommodate personal electrical generation such as via wind or solar. In addition to accommodating personal generation, grids should

³ <https://www.csis.org/analysis/united-states-broken-infrastructure-national-security-threat>

⁴ <https://www.ncdc.noaa.gov/billions/>

also be interconnected to provide redundancy in case of attack or climate related disasters. Finally, cyber operations and security should be revamped both with hard and soft means via hardware upgrades and increased training of cyber security best practices.

2. *WAYS*

- a. Critical infrastructure will be updated and kept up to date with support from the Department of Defense and Homeland Security in conjunction with other congressional agencies such as the Environmental Protection Agency (EPA), Department of Energy, etc. The Army Corp of Engineers will be tasked with the planning of large-scale projects as well as auditing of the maintenance and conditions of infrastructure sectors. Fuel taxes should be raised to match current inflation rates and should be tied to the inflation of the economy to constitute automatic rises to avoid delays in funding. Additional sources of funding shall be injected from the Department of Homeland Security and the Department of Defense to add more room to the budget.

3. *MEANS*

- a. As mentioned earlier, resources will be heavily reliant on fiscal policy as well as increased numbers of labor. Fiscal policy will require the increasing of the national gasoline sales tax to match current inflation rates as well as linking the tax to inflation rates for automatic increases to match inflation rates to limit stagnation in the funding streams. Additionally, as new innovations come online and domestic infrastructure becomes more of a factor in national security, new

streams of funding should be designated from the Department of Homeland Security.

4. *TIMING*

- a. This situation is quickly becoming urgent and failures in short-term investment will result in catastrophic challenges and will exponentially increase cost and potential lives lost. The Center for Strategic & International Studies states “There are two paths ahead. The path not taken for ages—revitalizing U.S. infrastructure—will require courage and compromise. But it leads toward renewal, prosperity, and security. The current path—neglecting U.S. infrastructure—is easy and dangerous. It leads toward unpreparedness, fragility, and decline. The choice is simple: the city on the hill can shine again, or the world can watch as its lights go out.”⁵

RISKS:

Inaction on behalf of critical infrastructure given the state of the nation’s crumbling roads, bridges, water lines, etc. will result in widening gaps of national security deficiencies as well as the potential for human casualty and threats to the economy. In addition, inaction to improve and fix infrastructure will slow the economy by limited access to opportunity and hinder logistics between entities – defense included. ⁶

⁵ <https://www.csis.org/analysis/united-states-broken-infrastructure-national-security-threat>

⁶ <https://www.brookings.edu/blog/the-avenue/2018/05/10/do-our-infrastructure-systems-put-people-at-risk/>

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