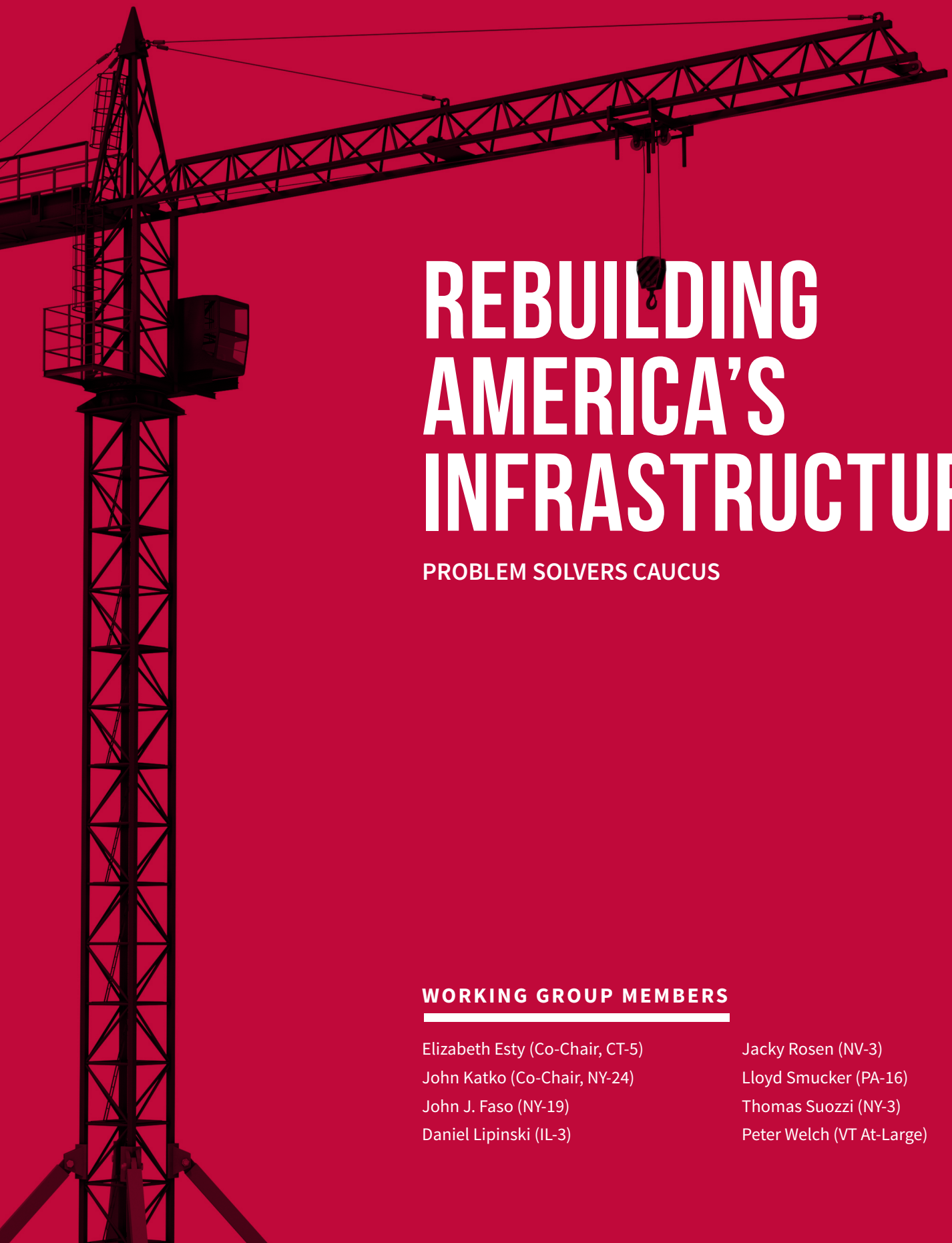

REBUILDING AMERICA'S INFRASTRUCTURE

PROBLEM SOLVERS CAUCUS

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MISSION STATEMENT

The Problem Solvers Caucus Infrastructure Working Group was created to analyze policies and find points of bipartisan consensus to address the enormous need for new infrastructure and the current backlog of deferred maintenance facing our country. The Working Group explored issues including but not limited to our highways, roads and bridges, transit and railways, ports and airports, water and sewer systems, energy systems and the power grid, and broadband and communications networks.

ACKNOWLEDGMENTS

Co-Chairs John Katko, Elizabeth Esty, and members of the Problem Solvers Caucus Infrastructure Working Group would like to thank the hard working staff and the community of engaged stakeholders for all they do to support this working group's mission. This effort would not have been possible without the consultation of over 100 outside stakeholder organizations, White House officials, and each individual below:

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The findings of this report are the result of a consensus driven approach that took into consideration the collective ideas and knowledge of a significant number of industry and governmental stakeholders. While the Problem Solvers Caucus has endorsed the broad findings of this report, each member's endorsement does not necessarily extend to each policy recommendation listed throughout the body of the report.

EXECUTIVE SUMMARY

America's infrastructure supports the world's largest economy across a network of nearly 9 million miles of roadway, 160,000 public water systems, 5.5 million miles of local electrical distribution lines, and nearly 90 million fixed broadband subscribers. Unfortunately, due to years of underinvestment and deferred maintenance, America is no longer keeping pace and continues to fall behind other countries. By some estimates, the funding gap may be as high as $2 trillion by 2025 across all sectors of American infrastructure.

This report details bipartisan policy solutions that will improve our highways, roads and bridges, transit and railways, ports and airports, water and sewer systems, energy systems and the power grid, and broadband and communications networks. By modernizing existing user fees, incentivizing private innovation and investment through public private partnerships, making smarter investments with limited federal dollars, and increasing accountability to taxpayers, this taskforce believes we can build a 21st Century infrastructure network that will foster a truly 21st Century economy that works for every single American.

Folsom Dam Auxiliary Spillway
Sacramento, CA

GENERAL REFORMS

PROBLEM STATEMENT

Congress must reconsider how it funds, finances, and treats infrastructure investments. We must fulfill our duty to provide stable, long-term funding for infrastructure that supports America's national security and our nearly $20 trillion economy, while also encouraging innovative financing and provide increased accountability to taxpayers so they know that every single dollar is invested wisely. Congress must also cut red tape and stop gridlock when it prevents projects from moving forward in as expedient a manner as possible, while ensuring environmental and safety protections.

SOLUTIONS

FUNDING AND FINANCING

- Congress needs to fulfill its duty to provide stable long-term sustainable funding for infrastructure.
- Preserve and expand tax-advantaged infrastructure financing options by maintaining the federal tax-exempt status for municipal bonds and private activity bonds as well as increasing the private activity bond state volume cap for all infrastructure categories.
- Incentivize states to adopt Public Private Partnership (P3) enabling legislation and establish P3 units to evaluate projects for viability as public private partnerships. While private sector participation alone cannot close the infrastructure gap, giving states and local governments flexibility in using P3s will provide them with an additional tool in their toolbox. P3s take many forms, from installing new lighting alongside highways to building and maintaining multi-billion dollar assets like new highways and wastewater treatment systems.
- Support increased transparency in competitive federal grant program decision making, as recommended by the Government Accountability Office (GAO), to ensure resources are targeted most effectively and programs are administered in line with Congressional intent (GAO-18-38: Published: Nov 2, 2017).
- Designate a rural liaison within each infrastructure agency (i.e., U.S. Department of Transportation, Environmental Protection Agency, Department of Interior, Department of Housing and Urban Development, Department of Health and Human Services) to provide technical assistance and help rural communities compete for funding or financing, and ensure rural set asides are maintained in grant and formula funding programs.
- Implement reforms to the Transportation Infrastructure Finance and Innovation Act (TIFIA), Water Infrastructure Finance and Innovation Act (WIFIA), and other federal financing programs that expand eligibility criteria and encourage more small system applications in rural communities. TIFIA and WIFIA have a proven track record in providing flexible, low cost loans and loan guarantees to projects of regional and national significance. In fact, every dollar these programs provide in federal loan assistance leverages up to $40 dollars in total public and private investment, making them one of the best multipliers in government.

- Federally funded infrastructure projects should include strong domestic content – or "Buy America" – preferences to ensure that American iron, steel, and manufactured goods are used in projects funded or financed by these programs.
- Consider additional private sector solutions, with federal government oversight, to finance large-scale infrastructure development. If properly incentivized through new legislation, both domestic and international private capital can serve to leverage long-term (20 to 30 year) bonded investments to finance various infrastructure projects.

STREAMLINING AND PROJECT DELIVERY THROUGH REGULATORY REFORMS

- The MAP-21 and FAST Act long-term transportation bills included a number of provisions to streamline the environmental review process and accelerate project delivery. Yet, many of those authorized provisions have not been implemented by the Department of Transportation. Congress should encourage USDOT to prioritize issuing regulations to implement those provisions as quickly as possible.
- Adapt FAST 41 streamlining provisions to other infrastructure legislation. FAST 41 provisions established under Title 41 of the FAST Act improve the timeliness, predictability, and transparency of the federal environmental review and authorization process for covered infrastructure projects.
- Support project approval streamlining measures that reduce delivery time and costs without jeopardizing safety. Options for improvement include: the creation of a finite permit challenge period; naming a lead agency to coordinate cross-agency permitting and to resolve disputes in multi-agency reviews; and a pilot self-certification option under which recipients of federal funding may self-certify, at their own risk and responsibility, that their right-of-way acquisitions and project plans meet all federal requirements.
- Increase tools, education, and technical assistance available to state and local agencies regarding new project delivery and financing models.

ADDITIONAL REFORMS

LIFE CYCLE ASSESSMENTS

Projects that receive federal funding or financing should utilize best practices for identifying, building, and maintaining infrastructure assets. Specifically, projects over $20 million should be required to conduct a 20-year life-cycle assessment to assess all future costs associated with the operation and maintenance of that facility.

BUDGET SCORING FOR FEDERAL INFRASTRUCTURE FUNDING AND FINANCING PROGRAMS

- Congress should work with Office of Management and Budget (OMB) and the Congressional Budget Office (CBO) to consider making targeted reforms to budget scoring policy by applying capital budgeting principles to modify federal budget scoring policy for federal infrastructure. This may include designing and adopting a federal capital budget for infrastructure that is separate from the federal operating budget and is not subject to PAYGO or other restrictions more appropriate for an operating budget. Furthermore, Congress should reexamine and consider the use of dynamic scoring by CBO on certain infrastructure bills.
- Budget scoring for TIFIA and WIFIA should be better aligned with the actual loss experienced by the government rather than the current assumed average loss of 10 percent. In reality, the federal government is expected to receive 99.9 percent of TIFIA loans back based on years of successful performance by the program. Currently, the discrepancy between the assumed average loss and the actual loss causes these programs to have a higher budget cost than needed. By better aligning these costs, both programs will be able to support more infrastructure projects.

CYBERSECURITY

- Congress must work across all sectors of infrastructure to ensure they are protected from domestic and foreign cyberattacks.

Rebuilding Manette Bridge
Washington State Department of Transportation

SURFACE TRANSPORTATION

PROBLEM STATEMENT

America's vast network of surface transportation infrastructure has given our country a major economic competitive advantage in a global economy. Unfortunately, Congress has allowed a vast backlog of deferred maintenance to grow in our existing infrastructure while failing to keep up with growing demand. This has made it harder for businesses to compete, caused workers and families to spend more time stuck in traffic each day, and left much of our infrastructure crumbling and unsafe.

While state and local governments provide about 75 percent of funding for all transportation infrastructure projects, federal participation plays a vital role in providing the revenue and additional financing tools that all states, cities, and rural areas count on to maintain world-class infrastructure and transportation services.

Historically, the federal government has paid its share through the Highway Trust Fund, which is funded primarily through the federal user fee on gasoline. However, in 2008, spending exceeded declining revenue in the fund for the first time since its inception in 1956. This is primarily due to the following three factors:

1) The 18.4 cents per-gallon user fee on gasoline has not been increased since 1993.
2) The user fee on gasoline is not indexed to factors including fuel economy standards, construction costs, or inflation, resulting in a user fee with a purchasing power that is worth 40 percent less than its value in 1993.
3) Technological innovations and federal fuel economy regulations have made vehicles far more efficient, resulting in further reductions in revenue for the trust fund.

As a result, Congress has been supplementing the trust fund since 2008 to the tune of $140 billion through significant transfers from the U.S. Treasury general fund and transfers from other federal funds. This spending puts the burden of today's infrastructure needs on tomorrow's children. Lawmakers must stop kicking the can down the road.

According to the American Society of Civil Engineers, the failure to properly address this problem now will cost families $1060 per year in lost disposable income and will suppress the growth of our GDP by $897 billion by the year 2020.

Road construction project

SOLUTIONS

PROVIDE SUSTAINABLE, LONG-TERM FUNDING

Ensure sustainable and long-term funding for the Highway Trust Fund by modernizing the current federal gasoline user fee and provide proper indexing tools so that the American people do not face the same funding shortfalls over the next 25 years. This could be done in a number of ways, including but not limited to:

- An immediate adjustment in calendar years after 2018 to the rates of the excise taxes on petroleum and petroleum products, diesel fuel, alcohol-based fuel, and fuels used in certain buses, by indexing them to any one (or some combination) of the following:
  - Inflation or the Consumer Price Index
  - National Highway Construction Cost Index
  - Corporate Average Fuel Economy (CAFE) standards
- An immediate or phased in modernization of the federal gasoline user fee that fully and sustainably funds the Highway Trust Fund and provides accountability to taxpayers by stopping future general fund transfers.

Alternative user fees that take into account changes in technology and mobility use, and equitably distribute the costs of maintaining and constructing transportation infrastructure, should be considered. These include but are not limited to:

- A modest annual registration fee on fully electric and hybrid electric vehicles, which currently either contribute nothing or contribute significantly less to the Highway Trust Fund than gasoline powered vehicles.
- A user fee based on the value of freight assessed through waybill taxes, broadening the current air cargo tax to trucking services.
- Incentivize additional pilot projects to transition to a mileage-based user fee and assess the functionality of and public reaction to existing pilot projects. Congress should also consider creating a pilot project to implement a mileage-based user fee on fully automated vehicles.

FINANCING

- Increase funding to TIFIA.
- Fix the Railroad Rehabilitation & Improvement Financing (RRIF) financing program. According to the GAO, the requirement for applicants to pay the cost of the credit risk premiums and long or uncertain application time frames have disincentivized the use of the RRIF program. As a result, only three RRIF loans have been made since 2012. Congress and USDOT should incentivize use of the RRIF program by completing application responses on time and by paying the estimated costs to the government associated with RRIF loans through appropriations, as is similarly done with the TIFIA and WIFIA loan programs.
- Congress should appropriate the authorized $12 million for the Regional Infrastructure Accelerator Demonstration Program in Section 1441 of the FAST Act. The program was designed to connect financing and infrastructure professionals with local and state governments to provide them with the technical expertise and pre-development capital needed to attract private investment.

PORTS AND INLAND WATERWAYS

PROBLEM STATEMENT

The failure to properly fund dredging and to accommodate Post-Panamax ships is causing the United States to lose business to Canada and Mexico, and places our national security in jeopardy as more goods are brought overland through our borders.

The Harbor Maintenance Trust Fund is funded through the harbor maintenance fee – a .125 percent tax assessed on the value of imported commercial cargo. This user fee and the Harbor Maintenance Trust Fund that it is deposited into are designed to pay for harbor maintenance and dredging. However, funds from the Harbor Maintenance Trust Fund must be released through the annual appropriations process and the amount released is often less than the amount collected through the harbor maintenance fee. Allowing the expenditure of Harbor Maintenance Tax revenues would provide more than $18 billion over the next decade, which is a 29 percent increase in investment.

This is a simple matter of accountability to taxpayers. Americans must feel confident that user fees are never diverted away from the purpose for which they are collected.

SOLUTIONS

- Congress should dedicate 100 percent of revenue raised for the Harbor Maintenance Trust Fund to its intended purpose: supporting port and harbor dredging activities.
- Congress should amend the INFRA Grant program and Freight Formula Program to enable the selection of more multimodal projects. The FAST Act requires that about 90 percent of funding through the INFRA competitive grant program and freight formula program be spent on highways, roads, and bridges.

Port of Miami, FL

WATER AND WASTEWATER INFRASTRUCTURE

PROBLEM STATEMENT

Sustainable water and wastewater infrastructure not only ensures safe drinking water and a clean environment, but also strengthens local and regional economies. Years of underfunding, underpricing of water and sanitary services, and increased federal regulatory mandates with declining financial support have led to the current state of aged and overburdened water and wastewater systems across our country. This deterioration of our water infrastructure has been worsened by the challenge many communities face in charging full-cost rates as well as deferred maintenance and replacement of water assets that have outlasted their lifespan.

The American Society of Civil Engineers estimates that if current trends persist, the funding gap pertaining to water infrastructure will reach $126 billion by 2020. In addition to fully funding current federal programs that have been effective in addressing the water infrastructure crisis, Congress should increase access to financing and incentivize accountability among states to maintain safe and clean water systems.

SOLUTIONS

- Strengthen and increase access to the Clean Water and Drinking Water State Revolving Funds. This can be done in a number of ways, including but not limited to:
  - Increase funding to the Clean Water and Drinking Water State Revolving Funds.
  - Direct GAO to complete a 50-state review of state regulations and requirements pertaining to SRF funding to determine best practices in an effort to reduce duplicative requirements and streamline the application process for localities.
- Increase WIFIA funding to its authorized level of $45 million.
- Examine the growing affordability strain on ratepayers and its impact on water infrastructure maintenance and repair. Develop a demonstration program to partner with and provide assistance to states and localities, in order to reduce the burden placed on rate payers when significant repairs are needed, to ensure that necessary investments can be made.
- Create a federal “Advanced Research Projects Agency – Water (ARPA-H2O)” to directly support high-risk, high-rewards technology development (e.g., innovative materials, remote sensors).
- Encourage state adoption of regionalization tools, require regionalization feasibility assessments for Safe Drinking Water Act (SDWA)-noncompliant systems, and audit and amend any federal regulatory barriers that may exist to water system regionalization.
- Examine ways to provide increased and expedited work-force development in the water infrastructure sector.
- Examine the growing threat posed by harmful algal blooms (HABs) to many drinking water systems across the country. Strengthen federal efforts to research, prevent, and mitigate HABs while also increasing resources available to states and localities to protect and update water systems threatened by HABs.
- Leverage existing investments in federal transportation projects to improve water quality by incentivizing the inclusion of green infrastructure or other innovative technologies to capture and treat stormwater generated by a project’s footprint.

ENERGY

PROBLEM STATEMENT

Our country's energy resources and technologies used to harness them have changed drastically over the past decade. Unfortunately, federal policies have failed to keep pace with the innovation and growth we have seen in this sector. Overly burdensome laws, regulations, and permit processes, as well as growing security threats, have stymied the investment and buildout of our energy infrastructure.

In addition to permit streamlining, as mentioned under "General Reforms," Congress should work to remove other regulatory barriers that slow advancements and access to traditional, renewable, and alternative energy. It is also imperative for Congress to continue to fund critical energy research which strengthens our economy and national security, and to better address the growing cyber and physical security threats to critical infrastructure.

SOLUTIONS

FUNDING

- Support Rural Utility Service loan programs that provide much-needed infrastructure or infrastructure improvements to rural communities.
- Continue to support critical research and development programs within the Department of Energy (DOE) to spark innovation, reduce energy costs for consumers, improve energy security, and protect the environment.
- Maintain funding for DOE's power grid modernization efforts through grants to DOE's National Labs and partners to support research and development into grid technologies that will improve efficiency, responsiveness, and capacity to deliver electricity.
- Support the use of Energy Savings Performance Contracts (ESPCs) and Utility Energy Service Contracts (UESCs) which enable the federal government to partner with the private sector to modernize federal infrastructure and improve the efficiency of federal facilities through innovative financing.

CYBER SECURITY

Expand cyber awareness and incident response training programs at the state and local level through efforts such as:

- Incentivizing greater private sector participation at Information Sharing and Analysis Centers (ISACs) to strengthen the cyber security of the power grid.
- Increase usage of the Department of Homeland Security's Cybersecurity Advisors Program for assessing cyber vulnerabilities within critical energy infrastructure.

PHYSICAL SECURITY

- Support the development of Counter Unmanned Aerial Systems (CUAS) technologies that can protect vulnerable facilities.
- Increase awareness of insider threats and training on response to insider threats.

Savannah River Site Biomass Cogeneration Facility, SC
U.S. Department of Energy

BROADBAND AND COMMUNICATIONS NETWORKS

PROBLEM STATEMENT:

The internet is a vital part of America's social fabric and commercial lifeblood. Millions of small and large businesses, schools, and governments now rely on the internet to accomplish routine, day-to-day tasks as well as major logistical operations once carried out with pen and paper.

The deployment of broadband networks has driven innovation across the country. Cities of all sizes are using smart sensors that drive down repair costs on infrastructure and help them make smarter decisions about how to use limited tax dollars. Businesses have grown out of garages and moved into downtown office buildings. Classrooms have put the entire planet at our children's fingertips. Unfortunately, these exciting innovations have not reached all corners of our country – putting many at a disadvantage in an increasingly competitive economy.

In short, access to the internet is essential to participate in our economy and our democracy. We need a national commitment to ensure that every American can connect to the internet, and that commitment needs to be on the same order as our country's commitment to rural electrification in the 1930s.

Broadband line work for Green County, WI
U.S. Department of Agriculture

SOLUTIONS

- Congress and the Federal Communications Commission (FCC) should address funding shortfalls within the FCC's Universal Service Fund (USF) by reforming how contributions are made to USF. USF helps connect schools and libraries, rural and difficult-to-reach consumers, rural health care facilities, and low-income Americans. These broadband and phone service programs are supported by a small service fee on users' telephone bills. But this mechanism is outdated and needs an upgrade. As the way we communicate continues to change, Congress and the FCC should modernize this fee to fully support USF's programs, address recent funding shortfalls, and improve the efficiency and targeting of the use of funds. At the same time, Congress and the FCC must take steps to root out waste, fraud, unaccountable spending, and abuse at USF so support gets to those that truly need it.
- The FCC, United States Department of Agriculture (USDA) and other relevant agencies should improve coordination to ensure federal programs make better use of the existing resources to build and maintain broadband infrastructure in rural areas and tribal communities.
- Incentivize dig once policies: During federally funded highway project construction, workers should put in place fiber conduits that can house fiber cables. This makes it significantly cheaper and easier to install fiber later, after the road construction is completed. Typically a service provider has to dig every time they want to lay or fix fiber, which is expensive and time consuming. Additionally, the FCC and National Telecommunications and Information Administration (NTIA) should improve the collection and availability of information regarding the location and availability of poles, ducts, conduits and rights of way.
- Encourage the proliferation of Internet of Things technologies by extending the Smart Cities Challenge at USDOT. The use of connected devices like sensors, lights, and meters to collect and analyze data is already helping small and large cities make smarter investments with federal dollars on infrastructure, utilities, and other public services. The Smart Cities Challenge used $40 million in federal funds to leverage nearly $350 million in public and private dollars for smart city technologies around the country.

AVIATION

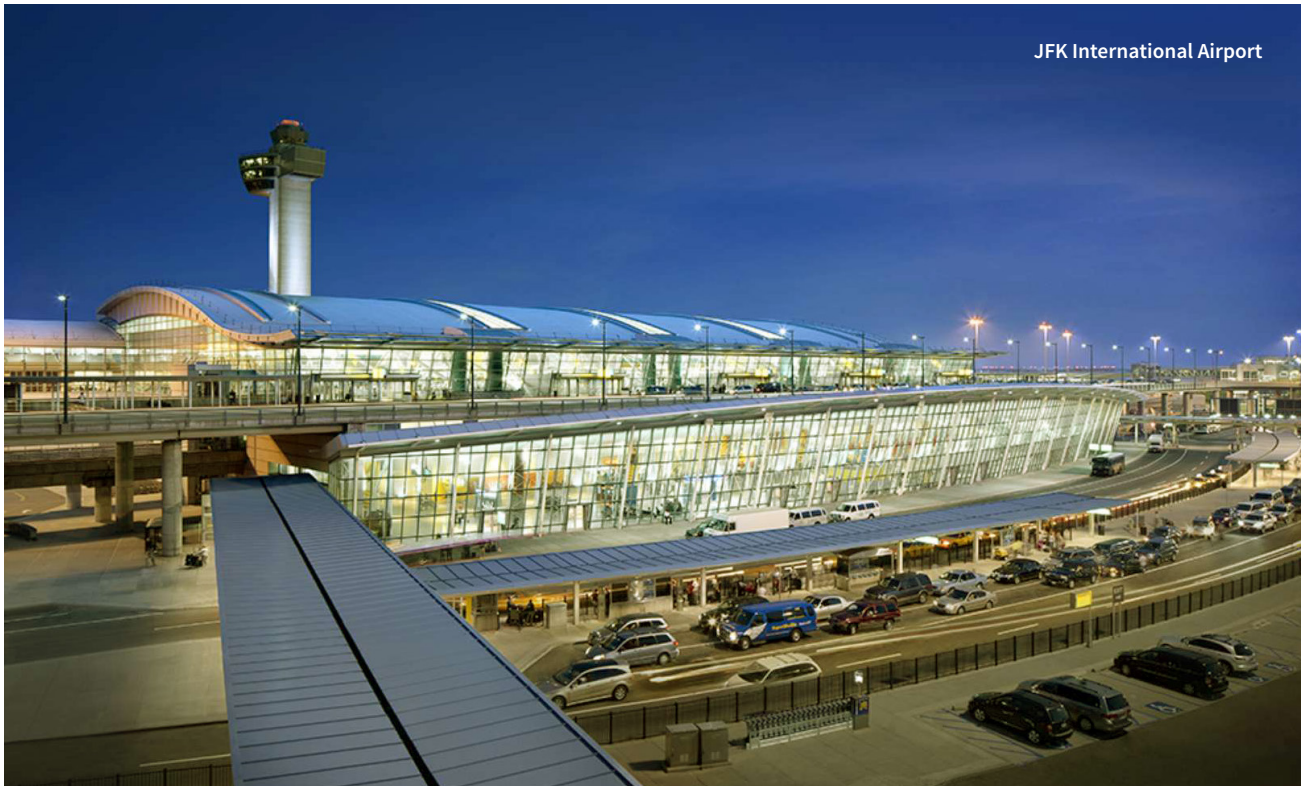
PROBLEM STATEMENT

America's airports carry more than 932 million passengers annually and move about a quarter of our exports and imports by value, yet Congress has not empowered our airports and air traffic control systems to keep up with growing demand. According to the U.S. Travel Association, 24 of the top 30 airports in the United States will soon experience "Thanksgiving-like congestion and traffic volume" at least one day every week.

The critical roles airports play locally, regionally, and nationally make them an important part of our national infrastructure. Whether serving as an economic engine, rural community access point, or critical site for emergency preparedness and response, Congress should work to ensure the viability of these important infrastructure assets.

SOLUTIONS

- Congress should proceed to debate a bipartisan, long-term reauthorization of the Federal Aviation Administration.



JFK International Airport