How to leverage federal infrastructure funds to make your state more resilient, sustainable, and competitive

Critical questions for policymakers to consider before finalizing infrastructure plans

The bipartisan Infrastructure Investment and Jobs Act (IIJA) unlocks a wide range of opportunities for states to modernize critical infrastructure in transformative ways to improve lives, create jobs, lower energy costs, boost resiliency, and reduce emissions.

To ensure smart investments that produce lasting returns for your community, consider the following opportunities for impact and follow-up questions.

Opportunities for impact:

1. Make local power systems cleaner, smarter, more reliable, and resilient to weather, cyberattacks, and other disruptions
   - Apply for the FEMA Building Resilient Infrastructure in Communities (BRIC) grant to deploy more microgrids across your state — ensuring that schools, police offices, and other critical infrastructure maintain power during grid outages.
   - State hazard mitigation officers should include microgrid deployment in FEMA state hazard plans.
   - Utilize formula funding in DOE grid resiliency programs to digitize power grids and buildings with software and distributed energy resources — ensuring power remains on during severe weather disruptions and protecting critical infrastructure.
   - Encourage utilities to apply for the Smart Grid Infrastructure grant program and include “digitizing and investing in software / demand flexibility” in their DOE applications.
   - Include software and microgrids, as well as upgrading and digitizing distribution systems, in state plans and DOE grants.

2. Ensure citizens have access to clean drinking water
   - Use water and wastewater (WWW) dollars in your state revolving funds to build or upgrade your WWW facilities with new software and digital solutions that maximize resiliency and sustainability, while also enabling better data management and real-time operational fixes.
   - Encourage state revolving fund managers to select improvement projects that incorporate industrial controls for enhanced efficiency and microgrids for greater resiliency.
   - Apply unused funds from the American Rescue Plan toward water and sewer projects.

3. Invest in electric transit infrastructure to give citizens more choice
   - Apply for new DOT EV funding to purchase electric buses as well as to upgrade and electrify bus facilities for future needs.
   - Use DOT funds to build out publicly accessible EV charging infrastructure with notable set-asides for rural, low, and middle-income communities to ensure equitable access.
   - Apply for EPA dollars under the Clean School Bus program to purchase electric school buses and charging equipment.
   - Examine how new charging requirements will impact electricity demand in your community and make plans.
   - Encourage ports to apply federal dollars toward heavy-duty vehicle electrification.

Modernize ports and supply chains to optimize transportation opportunities and make communities more competitive globally

- Ensure any upgrades to ports, airports, or rail systems include plans to digitize energy management and accelerate electric vehicle charging — decreasing supply chain interruptions and delays.
- Encourage port authorities and airports to incorporate electrification master planning, microgrids, and upgraded distribution systems into their applications to DOT, FAA, and Amtrak, to boost operational efficiency.
Integrate efficiency into your built environment in ways that unleash savings

• Utilize money in the State Energy Program (SEP) and Energy Efficiency and Conservation Block Grants (EECBG) for performance contracting to upgrade your municipal buildings, schools, and more.
• Ensure that performance contracting projects incorporate digitalization and resiliency to maximize efficiency, occupant comfort and health, and cost savings.

Activate Energy as a Service (EaaS) models to amplify taxpayer investments with private capital

• Leverage federal dollars and facilitate larger projects with innovative EaaS finance models available through companies like Alphastruxure™ to invest private funding in transformational and multimodal projects (e.g. electrifying buses and equipping airports with microgrids).

Questions to consider:

Future-readiness

• How do I anticipate demand for electricity to change in 10 years, 15 years, or 20 years? Is this project designed for a world in which our energy demands will be dramatically higher?
• Will current legislative guidance and budget rules facilitate digital versus analog projects? Do key definitions need adjustment?

Digitization

• Have I leveraged the digital solutions (software, artificial intelligence, real time data analytics) available today to ensure investments create more efficiency, resiliency, and sustainability for the community?
• Does the project incorporate technology and software solutions to track and remotely monitor critical infrastructure operations — predicting failures before they occur and deploying real-time fixes that protect people and investments?
• How should I alter state procurement processes to prioritize digital infrastructure?

Resiliency

• How can I direct state energy offices and regulatory commissions to create a more resilient and modernized power grid design capable of withstanding outages, and where use is easily measured and monitored?
• How should I direct a public utility commission regarding distribution systems?
• Have I considered the community’s energy needs as a system and have I explored systemic efficiency as a key tool?

Impact

• Is this project maximizing the community’s goals for sustainability in a measurable way?
• Has my plan integrated ways to make the most of these dollars to address multiple critical infrastructure needs at once? (e.g., town square hardening or a campus of buildings)
• How can public-private partnerships or private finance models amplify taxpayer investment and impact?

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