Congressional Update: Congress Passes $1 Trillion Bipartisan Infrastructure Bill

Lewis-Burke Associates LLC – November 8, 2021

On November 5, the House passed on a bipartisan vote of 228-206 a $1 trillion infrastructure package, sending it to President Biden for his signature and final enactment. The Infrastructure Investment and Jobs Act (H.R. 3684) would provide $550 billion in new spending on transportation, energy, broadband, climate resiliency, and water infrastructure as well as $450 billion to extend for another five years highway, transit, rail, and research initiatives for surface transportation programs set to expire on December 3. The package had already passed the Senate in August on a 69-30 vote. A House vote on the infrastructure package was delayed by several months as Democrats sought consensus on major legislative and funding provisions for a $1.75 trillion reconciliation package focused on child care, health care, education, and climate initiatives. On the same day the House passed the infrastructure package, the House also voted to advance debate on the reconciliation package and plans to take a vote the week of November 15.

The $550 billion in new spending is in five major categories: transportation, energy, broadband, climate resiliency, and water infrastructure (see graphic below).

Below are some highlights of major new research and development opportunities in the infrastructure package of most interested to the research and higher education communities. Lewis-Burke will provide more detailed analyses of major programs and new initiatives in the following week.
Additional highlights of the bill and areas of interest to research, technology, and higher education communities include:

- **Transportation Infrastructure**: The bill provides $225.65 billion in new spending over five years for roads and bridges, rail, public transit, and transportation safety, including $95 million over five years in supplemental funding for the University Transportation Centers (UTC) program. This is in addition to the base mandatory funding for UTCs, which includes funding for surface transportation research programs such as a new unsolicited research initiative, an expansion of the transportation technology demonstration program, and a new transportation resilience centers of excellence program.
  - **UTC Program**: Makes several technical revisions to the UTCs while expanding overall funding for the program by $95 million spread over five years. The legislation includes a seventh thematic area focusing on “reducing transportation cybersecurity risks” and directs a Regional UTC to focus on “cybersecurity implications of technologies relating to connected vehicles, connected infrastructure, and autonomous vehicles.” This is in addition to the requirement that one Regional UTC focus on “comprehensive transportation safety, congestion, connected vehicles, connected infrastructure, and autonomous vehicles.” Given timing of prior UTC competitions and the relatively minor changes Congress made to the program, Lewis-Burke anticipates that DOT will issue a Notice of Funding Opportunity (NOFO) in early winter of 2022.
  - **Transportation Resilience and Adaptation Centers of Excellence (COE)**: Establishes one national and 10 regional university-led COEs. Focus of COEs are to advance R&D that improves surface transportation resilience to natural disasters and extreme weather. Each COE would receive $10 million annually for fiscal years (FY) 2022 through
FY 2031, although funding to start and maintain the new program would need to be provided either by Congress (through the annual appropriations process) or by DOT shifting funds from other accounts.

- **Advanced Research Projects Agency-Infrastructure (ARPA-I):** ARPA-I will focus on R&D on advanced transportation infrastructure technologies and will support novel, early-stage research as well as advance conceptual research into testing and development. UTCs are noted eligible to partner with ARPA-I to accomplish its goals. The legislation does not provide funding for ARPA-I. The FY 2022 President’s Budget Request called for $2 billion to establish ARPA-I, however no funding was provided in the House or Senate FY 2022 appropriations bills.

- **Energy Infrastructure:** The bill includes $73 billion over four years for DOE energy infrastructure and clean energy demonstration projects. Targeted funding would be provided for Carbon Capture Utilization and Storage (CCUS), direct air capture, grid resilience and modernization, and clean hydrogen, among other topics. Most of the funding would support industry- and national lab-led projects, but research universities would be eligible to partner and, in some cases, lead projects. More information on energy investments can be found here.

- **Resilient Infrastructure:** The bill contains $46 billion for broadly defined “resilience” programs at several federal agencies. Much of the funding would support construction or restoration projects at the Environmental Protection Agency (EPA), Department of the Interior, and the Army Corps. Some programs of particular interest include $492 million for NOAA’s National Coastal Resilience Fund; $1 billion for EPA’s Great Lakes Restoration Initiative; $1 billion for the Federal Emergency Management Agency’s (FEMA) Building Resilient Infrastructure and Communities (BRIC) Program; $157 million over five years for the Department of Homeland Security’s Science and Technology Directorate for cybersecurity-related research activities; and $100 million for NOAA’s Fireweather Testbed program.

- **Broadband Infrastructure:** The bill contains $65 billion for the deployment of broadband and growth of digital literacy across the United States. This includes $42.5 billion to establish the Broadband Equity, Access, and Deployment Program, which will provide grants to states to extend broadband infrastructure in unserved and underserved areas and at community anchor institutions. Other provisions of relevance include providing $250 million per year through FY 2026 to establish a Digital Equity Competitive Grant Program and making permanent the Emergency Broadband Benefit Program under a new name (the Affordable Connectivity Program) and maintaining Pell Grant recipients eligibility for the program.