An illustration featuring a large, three-dimensional pie chart in shades of orange and grey. Two stylized human figures are shown interacting with the chart: one is leaning over to cut a slice, and the other is standing nearby. The background shows a simplified architectural drawing of a building with columns and a flag on top. The overall color palette is teal and light green.

Dissecting the Federal Infrastructure Law

Massive funding bill could breathe life into utility capital-improvement projects

BY JOHN EGAN, CONTRIBUTING WRITER

The Infrastructure Investment and Jobs Act (IIJA), signed into law by President Biden in November 2021, is a once-in-a-generation, \$1.2 trillion legislative smorgasbord, with about 350 program areas administered by more than a dozen federal agencies.

At 1,039 pages, the law offers funding opportunities for just about every industry and interest. Local concerns determine which programs are a priority. In Washington state, for example, public power utilities have their eyes on funding for water projects, among other things. In South Carolina, transportation funding has emerged as a priority. Every local utility that delivers water has an interest in removing lead service lines and pipes and upgrading infrastructure.

The infrastructure act “is a massive piece of intricate legislation — it’s a beast,” said Erica Wright a legislative and public advocate at the Municipal Association of South Carolina (MASC). “There’s so much there that it’s hard to wrap your head around it. I’m drinking through a fire hose.”

“By comparison,” she said, President Biden’s other signature piece of legislation in 2021, the American Rescue Plan, “was easy.”

Kent Sulem, director of government relations and senior counsel to the Minnesota Municipal Utilities Association, agreed: “There are an awful lot of spreadsheets floating around, and a lot of uncertainty.”

Lots of Money — And Challenges

With the law in place, local governments hoping to secure federal infrastructure funding await directions about next steps. The process is akin to a blindfolded person trying to walk through an unfamiliar room in which furniture, coffee tables, dogs, children and toys are everywhere, ready to trip up the unwary.

Procedurally, after federal agencies develop guidelines, some funds will be transferred to state agencies, which will award grants to applicants. Other funds will be awarded directly to applicants, generally through a competitive grant process. Given the breadth of the IJA, it is no surprise that notices of funding opportunities have been slow to emerge from federal and state agencies.

Of the law's \$1.2 trillion in funding, \$550 billion is new federal spending that was not previously authorized, according to an American Public Power Association summary of the legislation. As it relates to utilities, this new federal spending includes:

- \$65 billion for broadband infrastructure,
- \$65 billion for electric and grid infrastructure,
- \$47.2 billion for resiliency, including cybersecurity,
- \$7.5 billion for zero- and low-emission school buses and ferries, and
- \$7.5 billion in federal spending for electric and alternative fuel vehicle infrastructure.

Several federal agencies have issued guidance on distributing the funding to state agencies, which will make award decisions based on that guidance. Monies will be distributed through two means: formula-based funding and competitive grants.

The table shows IJA minimum formula funding estimates for a dozen states for three utility-specific areas: broadband; electric vehicle charging infrastructure; and climate change, cybersecurity and extreme weather.

"At the federal level, there have been mass drop-offs of information, then nothing," said MMUA's Sulem. "It's been months of hurry up and wait. Plus, the lack of clarity about the process makes it hard for us to give a straight answer to questions we receive from state lawmakers, some of

Formula Funding for Utility-Specific Titles of IJA

State	Broadband	EV Charging Network	Climate Change, Cybersecurity and Extreme Weather
Alabama	\$100 million	\$79 million	\$42 million
California	\$100 million	\$384 million	\$124 million
Georgia	\$100 million	\$135 million	\$46 million
Indiana	\$100 million	\$100 million	\$40 million
Iowa	\$100 million	\$51 million	\$36 million
Kansas	\$100 million	\$40 million	\$39 million
Minnesota	\$100 million	\$68 million	\$37 million
Nebraska	\$100 million	\$30 million	\$29.5 million
Ohio	\$100 million	\$140 million	\$51 million
South Carolina	\$100 million	\$70 million	\$33.3 million
Texas	\$100 million	\$408 million	\$95 million
Washington state	\$100 million	\$71 million	\$57 million

Infrastructure funding will be allocated to states following the same formula historically used for transportation projects. The table contains a sample of the minimum formula funds for utility projects. Source: The White House

whom think the act creates opportunities for mischief and want to impose oversight requirements.

"And don't forget that there's still a huge supply chain problem," Sulem said. "It's great if you get funding, but with a two- to four-year wait for transformers, what good is the money if you can't spend it?"

Public power utilities have needs as diverse as the APPA membership, but four areas hold particular interest: electric vehicle infrastructure; transmission; climate change, cybersecurity and extreme weather; and broadband.

Electric Vehicle Infrastructure

Fortune Business Insights, in a February 2022 report, projected a nearly six-fold increase in the U.S. market for electric vehicles between 2021 and 2028. EV charging stations are essential to supporting this new demand for electricity.

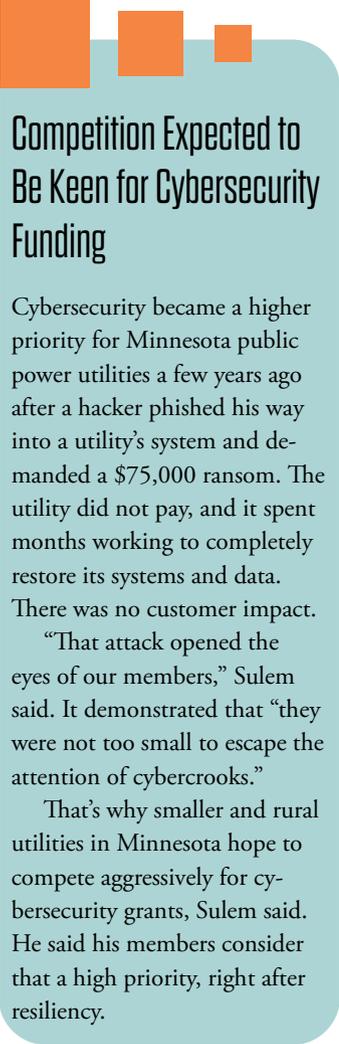
"At this point, there are about 80,000 EV chargers in California, and the state's target is to take that to 1.2 million by 2030," said Barry Moline, executive director of the California Municipal Utilities Association. There will be a need for distribution system upgrades to support that network.

MMUA's Sulem said some of his members, mostly those located near interstate highways, are likely to compete for EV infrastructure funding. But Erica Wright said EV infrastructure is a lower priority for public power utilities in South Carolina.

Transmission Infrastructure

Renewable energy generation in California has grown sharply in recent years. Most of that new clean, non-emitting generation is located far away from customers, necessitating the construction of transmission lines.

“In aggregate, \$65 billion to upgrade the transmission and distribution (T&D) systems sounds like a lot, but it’s actually fairly modest considering the substantial build-out of renewable energy across the country,” said Moline. Driven by California’s aggressive renewable energy and greenhouse gas-reduction rules, CMUA members will be competing for those dollars, he said.



Competition Expected to Be Keen for Cybersecurity Funding

Cybersecurity became a higher priority for Minnesota public power utilities a few years ago after a hacker phished his way into a utility’s system and demanded a \$75,000 ransom. The utility did not pay, and it spent months working to completely restore its systems and data. There was no customer impact.

“That attack opened the eyes of our members,” Sulem said. It demonstrated that “they were not too small to escape the attention of cybercrooks.”

That’s why smaller and rural utilities in Minnesota hope to compete aggressively for cybersecurity grants, Sulem said. He said his members consider that a high priority, right after resiliency.

Climate Change, Cybersecurity, and Extreme Weather

Public power utilities in Minnesota hope to secure IIJA funding for strengthening their electric distribution grids, said Sulem.

“Our members live in the northern section of Tornado Alley and it seems like every year we have tornadoes or storms with high straight-line winds that wreak havoc on our overhead lines,” he said.

This spring, parts of Minnesota sustained wind gusts in excess of 100 miles per hour over a five-hour period. About 220,000 electricity customers in the state lost power.

“Even though Minnesota gets its share of extreme weather, our members’ customers expect the lights to stay on,” Sulem said. “Minnesota utilities are trying to become more resilient by undergrounding lines and modernizing transformers.”

“The federal dollars to fight climate change are welcome because

states and utilities may have difficulty tackling these huge existential challenges without some assistance from the federal government,” said Moline.

California’s renewable energy and greenhouse-gas-reduction goals “have created a brick wall for our members,” he said. “There is only so much land available where they can build large-scale solar or wind generation, there is nowhere near the lithium we need to reach EV goals, and overhanging all of this is the continued supply-chain limitation.

“In our state, there has been a growing acceptance of the need for a strategic, integrated approach to fighting climate change,” Moline said. “Our state lawmakers and regulators have shown a high level of cooperation in fighting climate change. The federal dollars will help greatly. The size and scope of climate change poses huge, existential challenges that must be addressed in a holistic, integrated manner.”

Some California public power utilities have set their sights on creating hydrogen hubs in the northern and southern parts of the state.

“The energy system of the future has to be carbon-free as well as dispatchable,” Moline said. “It’s really important that projects that receive funding help move the energy ball downfield. We need to commercialize new technologies and new knowledge, make sure the funds are spent on forward-looking technologies.”

Broadband

“The COVID-19 pandemic showed the dire need for, really almost an emergency, around broadband in South Carolina,” said MASC’s Wright. “During the pandemic, we had so many people learning and living at home. We’re talking about children’s ability to learn.”

She estimated that tens of thousands of South Carolina children lacked smart phones, a computer, or access to broadband. Those children risked being left behind when education went remote.

“Economically, socially, educationally, and medically, broadband is a game changer,” Wright said. “You can’t work or learn remotely without it. But there have been very few incentives to extend broadband to sparsely populated rural areas.”

“We have digital donut holes all around our state, where communities with ample access to broadband surround poorly served communities. The poorly served communities are the donut holes. We will advocate for using our state’s broadband formula funding to close those donut holes and make sure more people have access to broadband internet service.”

Public power utilities in California serve urban areas like Los Angeles and Sacramento, as well as less-populated areas in and around the Central Valley and Sierra Nevada mountains. Some CMUA members are underserved when it comes to broadband, and Moline expects they will compete for some of those funds.

Teamwork Makes the Dream Work

To advocate for public power's share of broadband dollars, MASC's Wright is part of a broad stakeholder's group organized by the South Carolina Broadband Office. She relays what she learns there to her members. Earlier this year, she participated in webcasts organized by the White House and federal agencies on guidance for applying for IIJA funds. She relays that information to her members and facilitates meetings between her members and federal agency officials involved in developing funding guidance. This summer, she is working with MASC members to sharpen their grant-writing skills.

Starting last fall, even before the IIJA was signed into law, Wright and others interviewed for this article participated in stakeholder groups to build broad support for funding requests. With more than a dozen federal agencies making grant decisions, and numerous state-level groups, that meant a lot of conference calls and video meetings. That likely will continue through the summer, as federal agencies continue to roll out guidance on how applicants can apply for funds.

CMUA's Moline praised a California state agency, the Office of Emergency Services, for its role in coordinating grant applications. I've never

seen this level of state and local cooperation in my career," he said. "They have a broad mission to help get California more federal dollars in this area and, through CMUA, eagerly reach out to local governments and our members to review proposals and help make that happen."

Sulem said Minnesota municipal utilities have a great relationship with the state's Department of Commerce, which houses the state energy office. The DOC has acted as an information clearinghouse, providing legislative summaries and notices of funding opportunities to MMUA, which in turn distributes them to its members. During the summer, Sulem said he expects the DOC to host webcasts to help utilities with grant applications.

Sulem, Moline, and Wright all recommended that utilities and their state associations engage as deeply as they can with state agencies and affected stakeholder groups. The breadth of stakeholder support for a grant application is one criterion weighed by agencies making grants.

"This is an extended relay race between federal agencies, state agencies, state public power associations, and individual [utilities]," said MMUA's Sulem. "Making it more complicated, barriers and obstacles are still emerging. The most important priority is to make sure that no one drops the baton."



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