FMI

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2024

UTILITY AND COMMUNICATIONS INFRASTRUCTURE

2024 OUTLOOK

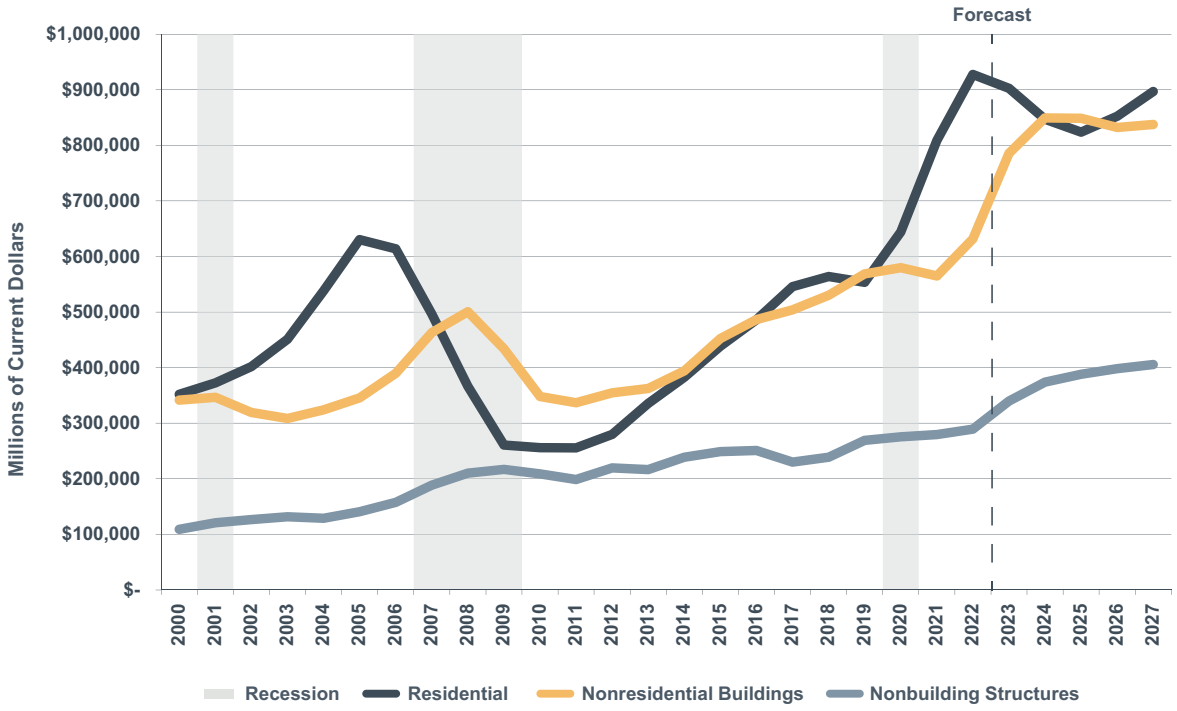
EXECUTIVE SUMMARY

Construction spending on utility and communications infrastructure will be a bright spot in the coming year, buoyed by demographic trends, new regulations, and billions of dollars in federal and state spending. The underground segment of the built environment will grow even as FMI research estimates that total construction put-in-place for 2024 will increase just 2% compared to 2023 (see Figure 1).

Specifically, construction spending on the energy and power sector will grow 11% to $138 billion. Spending on sewage and waste disposal infrastructure is predicted to rise by 11% to $48 billion. Spending on water supply infrastructure will increase 8% to $31 billion. Telecommunications construction is expected to grow by 7% to $25 billion. And while not poised for an increase, natural gas construction spending will remain steady due to the ongoing need for repairs and improvements.

All told, the industry's mantra of "out of sight, out of mind" no longer rings true.

FIGURE 1: ESTIMATED U.S. CONSTRUCTION PUT-IN-PLACE



SOURCE: FMI

POWER CONSTRUCTION SURGE

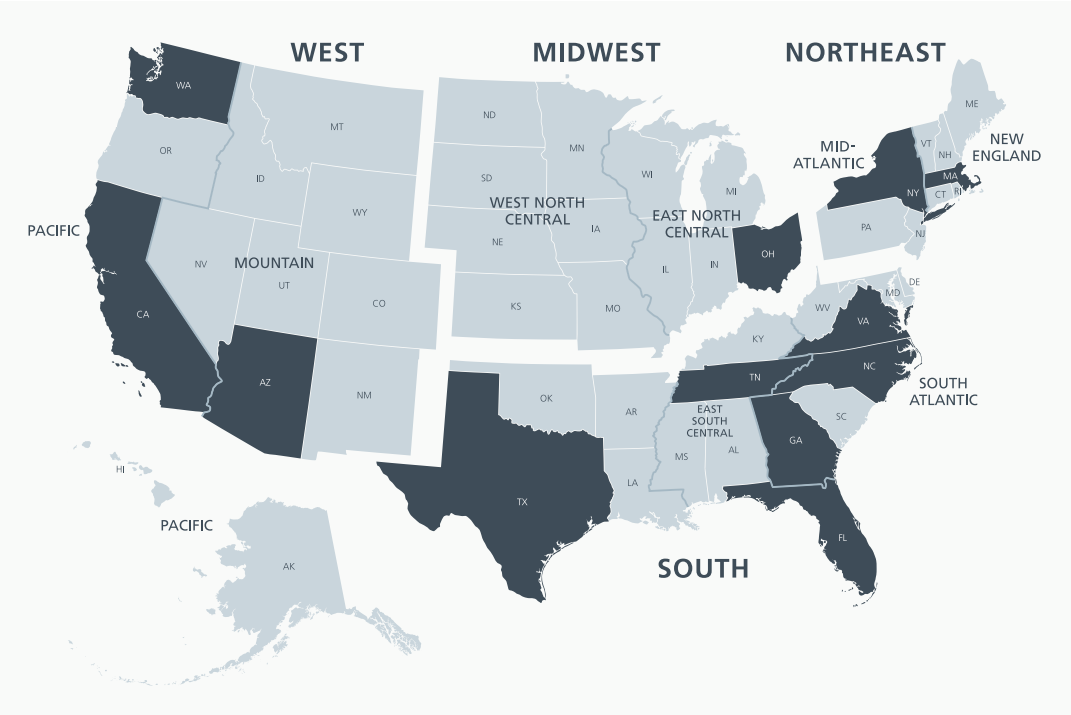
Spending on power construction, including new and upgraded generation and transmission infrastructure, will climb by 11% in 2024. This rise is in response to greater predicted energy needs from industrial growth and population migration as well as investments in grid hardening and climate resiliency.

Grid planners foresee a significant need for more energy in the coming years. They expect our national energy load to grow at a 5% compound annual growth rate through 2028, hitting peak demand of 38 gigawatts by 2028. Future energy requirements will come from substantial investments in new manufacturing and industrial facilities, data centers, transportation and building electrification. The industry will need to build new generation and transmission infrastructure nationwide.

Contributing to the future energy need is population migration. People are moving to suburban areas and select states, creating a greenfield need for new power infrastructure. Today, 12 construction markets account for one-third of the total U.S. construction spend. Out of those 12 markets, six are in the south, three are in the west, and three are in the north (see Figure 2). Within many of the urban regions, the current infrastructure needs to be expanded simply to keep pace with demand.

Utilities are also investing millions of dollars in climate change resiliency and hardening programs. This shift is a direct response to extreme weather events. For example, after Superstorm Sandy hit the Northeast in 2012, ConEd spent $1 billion to strengthen its infrastructure against future storms. For the same reasons, in the

FIGURE 2: 12 CONSTRUCTION MARKETS ACCOUNTING FOR ONE-THIRD OF TOTAL U.S. CONSTRUCTION SPEND



SOURCE: FMI

5% ENERGY GROWTH

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nearly two decades since Hurricane Wilma devastated southern Florida, Florida Power & Light Co. has spent more than $3 billion on flood protection, distribution feeder protection and replacing wood poles with steel and concrete structures.

Previous grid hardening initiatives were undertaken after catastrophes. Now, fueled by billions of dollars in federal funding, utilities are looking ahead.

In October of 2023, the federal government announced the first awards in Grid Resilience and Innovation Partnerships Program Projects, amounting to $3.5 billion, with another nearly $4 billion in projects planned for 2024 through 2026. U.S. Secretary of Energy Jennifer M. Granholm called the investments "the largest-ever direct investment in critical grid infrastructure."

These projects have multiple aims. Chiefly, they will increase transmission system capacity, prevent outages and integrate renewable energy and the demand for greater electricity. They include the construction of microgrids, artificial intelligence (AI)-enabled computing and advanced battery storage.

Finally, the "electrify everything" movement is driving change. Retrofit activity (subtransmission) is occurring to account for increased electrification associated with data centers, industrial facilities and electric vehicles.

FUNDS FLOW TO WATER AND WASTEWATER INFRASTRUCTURE

In the wake of the water crisis in Flint, Michigan, and subsequent water shortages and droughts, the federal government has opened the spigot on water spending. As a result, construction spending on water treatment, storage, ecosystem restoration and pipe replacement will rise 8% this year. Sewage and wastewater infrastructure spending will grow 11%.

The federal Infrastructure Investment and Jobs Act (IIJA) of 2021 is the largest federal investment in water since the 1970s. Also known as the Bipartisan Infrastructure Law, the IIJA allocates $55 billion of new funding for drinking water, wastewater and stormwater infrastructure through 2026. Big chunks of money are directed toward lead service line replacements, remediation and reuse projects. However, the IIJA has a comprehensive and diversified approach to water investments, leaving almost no section of the nation's watersheds untouched.

As part of the IIJA, the U.S. Environmental Protection Agency (EPA) has introduced the strictest lead service line (LSL) regulations in three decades. The agency proposes that utilities replace all LSLs within the next 10 years, regardless of the levels of lead registered. Recent EPA reports show that at least 5% of U.S. lines — and possibly as high as 10% — are LSLs. Beyond funding replacements, utilities will invest in finding and identifying unknown and unreported lines. While the infrastructure law allocates billions in funding for line replacements, local communities are expected to contribute millions of dollars as well.

The IIJA also allocates billions of dollars for dam safety, ecosystem restoration and water storage. Examples of such projects include the Lower Manhattan Coastal Resiliency Project and the proposed Ike Dike coastal barrier in Galveston, Texas. The IIJA complements other federal programs such as the Rural Utilities Service Water and Environmental Programs (WEP), which provides funds for construction of water and waste facilities in rural areas.

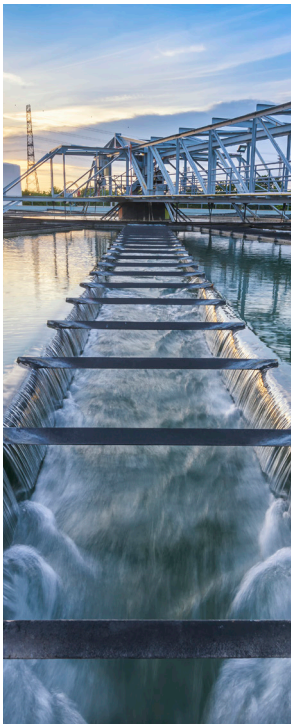
CONSTRUCTION SPENDING ON WATER TREATMENT, STORAGE, ECOSYSTEM RESTORATION AND PIPE REPLACEMENT WILL RISE

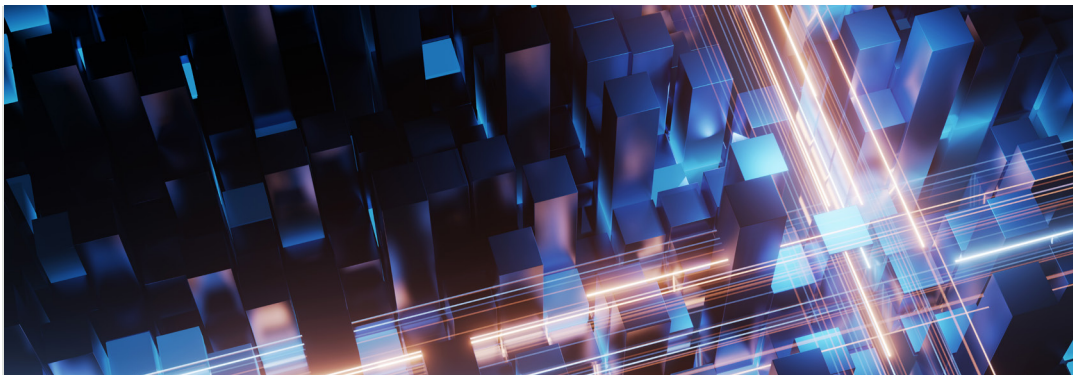
8%

THIS YEAR.

SEWAGE AND WASTEWATER INFRASTRUCTURE SPENDING WILL GROW

11%





In short, the emphasis on clean water and safe disposal of wastewater for all communities has materially altered the outlook for a segment that saw less investment and emphasis in years past.

TELECOMMUNICATIONS CONSTRUCTION STABILITY

Telecom construction is expected to maintain a steady growth rate of 7% through 2024. Publicly traded communications companies have been conservative, deploying 5G to second- and third-tier markets while emphasizing the "fiber to the home" movement. There are some theories for the slowdown, such as concerns about satellite internet, customer pushback on rising phone plan pricing, and the potential for lead remediation to address groundwater issues that arose in 2023.

Spending in rural areas will increase due to the Broadband Equity, Access, and Deployment (BEAD) program that invests $42.5 billion in rural communities to expand access to high-speed internet. Funding is expected to start in 2024. Since construction makes up about 70% of broadband deployment costs, this represents a big opportunity for telecom construction firms.

BEAD funds can be used for a variety of activities, including deploying fiber optic cables, fixed wireless and other broadband technologies, and supporting middle-mile infrastructure projects that connect smaller communities to larger networks. The program also supports broadband mapping and data collection efforts to better understand the underground built environment. However, there may be challenges with permitting and pole attachment; a shortage of skilled labor; and complexities between states, network operators and manufacturers.

NATURAL GAS SECTOR: REPAIRS AND IMPROVEMENTS

The outlook for the natural gas transmission segment diverges meaningfully from the other underground segments this year. The Biden administration has stated its desire to shift away from fossil fuels, limiting opportunities for new oil and gas transmission infrastructure. Repair and improvements to existing infrastructure will be stable as the nation still depends on natural gas for heat and power.

For the gas distribution contractor, installation, repair and replacement will remain at levels similar to 2023. Most local distribution companies (LDCs) in the U.S. are under some form of accelerated replacement program, with multiyear capital investments being made to address leak-prone infrastructure. The industry made great improvements in the quality of the gas pipelines; however, over 410,000 miles

SINCE CONSTRUCTION MAKES UP ABOUT

70%

OF BROADBAND DEPLOYMENT COSTS, THIS REPRESENTS A BIG OPPORTUNITY FOR TELECOM CONSTRUCTION FIRMS.

of distribution pipeline were installed prior to 1970 and are nearing their projected life expectancy. Gas distribution contractors have experienced some pushback on price adjustments due to inflation, but there will be no shortage of repair, replacement and installation opportunities in 2024.

KEY TAKEAWAYS FOR THE UTILITY AND COMMUNICATIONS CONTRACTOR INDUSTRY

The next few years will bring trillions of dollars of federal investments in water, power and telecom infrastructure spending. For constructors, this era will bring the (welcome) pains that come with growth:

- Keeping up with the volume of RFPs and funding opportunities will require ongoing monitoring.
- Rural utility contractors may have issues with talent since much of the labor will likely be tied up in the urban/MSA areas where construction spending is more concentrated.
- Given the public nature of some water projects, it will be critical to invest in local stakeholder communication and engagement.
- The water sector could be a target for mergers and acquisitions.
- Key trends to watch include the election, aging infrastructure and the impact of rapidly increasing product prices.

"Historic investments in infrastructure updates, upgrades and resiliency measures present significant opportunity and risk, as scarcity of qualified labor and supervision will be major strategic challenges for utility contractors. FMI's 2023 Labor Productivity Study revealed declining sentiment on field labor productivity amid the broader industry. Labor intensive specialty contractors are investing in project controls and workforce training to counteract the longitudinal industry trends of productivity decline. With seemingly no end in sight in demand growth for utility and communication infrastructure contractor services, focusing on operational excellence is a strategic imperative in 2024 and beyond for these firms."

— Tyler Paré, Partner
FMI Consulting

AUTHOR

DAN SHUMATE is a managing director with FMI Capital Advisors, Inc., who specializes in mergers and acquisition and business continuity transactions. A respected thought leader, he is a member of and regularly contributes articles and industry insights to the Power and Communication Contractors Association, Distribution Contractors Association and National Utility Contractors Association.

Before joining FMI, Dan was an associate with Mazzone and Associates, a middle-market investment bank, in sell-side advisory, recapitalization, management buyout and acquisition advisory services. Prior to Mazzone, he was an analyst for Capital Insight, LLC, providing financial analysis, valuation and diligence for companies in the convenience and industry.

Dan served as a captain and pilot of Blackhawk helicopters for the Tennessee Army National Guard. In this role, he also oversaw the maintenance and logistical support for the Blackhawks in the Air Assault and MEDEVAC units. He can be reached at dan.shumate@fmicorp.com.

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