



Bipartisan Infrastructure Investment and Jobs Act

What You Need to Know

The Bipartisan Infrastructure Investment and Jobs Act proposes the largest investment in water, energy, broadband and transportation infrastructure in decades. With its passage, the Plan will transform how millions of families and businesses across the United States live, work and connect by updating our most vital infrastructure systems to reflect the needs of today and tomorrow. As leaders in zero-emission transportation, advanced decarbonization solutions, digital water and more, Black & Veatch is working with our clients to deliver on the promise of the Bipartisan Infrastructure Investment and Jobs Act.

Key Provisions:

Power Grid/Clean Energy

Water Infrastructure + Lead Line Removal

Zero-Emission Transportation

High-Speed Broadband



BLACK & VEATCH

Bipartisan Infrastructure
Investment and Jobs Act

Power Utility Sector Investments and Programs

- Reenergize America's power infrastructure
 - Targeted investment tax credit incentivizes building a more resilient electric transmission system, including building out at least 20 GW of high-voltage power lines
 - 10-year extension of credits for clean energy generation and storage, plus state and local government support to accelerate modernization
- A new Grid Deployment Authority at the Department of Energy that allows for better leverage of existing rights-of-way to host transmission lines, build renewable energy projects, deploy broadband, and support electric vehicle charging
- Billions to demonstration projects for climate R&D priorities including utility-scale energy storage, carbon capture and storage, hydrogen, advanced nuclear, floating offshore wind, biofuel/bioproducts and electric vehicles to strengthen U.S. technological leadership in these global markets

Black & Veatch Capabilities and Experience:

285 GW of conventional + renewable energy deployed globally

70 years of experience working on grid modernization projects in the U.S.

9,000+ substation projects in the last 10 years

- Generation
- Grid Modernization
- Transmission and Distribution
- Energy Storage

- Black & Veatch is program manager for the retrofit of Ohio's Long Ridge Energy Generation combined-cycle power plant that will run on a blend of natural gas and carbon-free hydrogen, making it the nation's first large gas turbine plant to transition to hydrogen fuel.
- We served as owner's engineer on the Intermountain Power Project Renewal Project, one of the earliest installations of combustion turbine technology designed to use a high percentage of green hydrogen.
- Black & Veatch provided engineering, construction and consulting services for Capital Power on its Cardinal Point Wind Power Project, which comprises 60 wind turbines that generate 150 MW of valuable, zero-carbon power across the plains of Illinois.
- Black & Veatch provided engineering, procurement and construction services on four solar energy projects that will power homes as part of Florida Power & Light's renewable energy program.

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Water Sector Investments and Programs

- Billions to ensure clean, safe drinking water and adequate wastewater and stormwater infrastructure
- Funds will flow through the existing Clean and Drinking Water State Revolving Funds (SRF) Programs.
 - Modernize drinking water, wastewater and stormwater systems
 - Replace the nation's lead pipes and service lines
 - Funding to monitor and remediate PFAS in drinking water
- Funding for environmental resiliency and restoration of natural resources

Black & Veatch Capabilities and Experience:

The BV 2021 ENR Design Rankings (by 2020 Revenues) are:

#7 Water Supply

- #6 Water Treatment, Desalination Plants
- #9 Water Transmission Lines and Aqueducts
- #11 Dams and Reservoirs

#8 Sewer And Waste

- #4 Sanitary and Storm Sewers
- #7 Wastewater Treatment Plants

Power (Hydropower)

- #4 Hydro Plants

- **Funding and Financing:** Black & Veatch offers evaluation and strategy, and grant and loan application assistance. We have decades of experience helping clients secure funding, including more than \$5 billion in SRF programs.
- **Lead and Copper:** Black & Veatch helps clients identify lead contamination and develop plans to mitigate risk, track Lead & Copper Rule compliance, design and conduct corrosion studies, provide guidance for locating and replacing lead service lines, and access funding programs.
- **PFAS:** Black & Veatch assists utilities across the country with proven PFAS removal technologies and alternatives evaluation, cost modeling and process development. We are currently leading the development of a cost model for the first national drinking water standard for PFAS treatment.
- **Drinking Water:** In the past 25 years, Black & Veatch has completed hundreds of drinking water treatment projects globally, totaling more than 7,500 million gallons per day (MGD) of capacity. Our leadership in advanced disinfection methods includes ultraviolet disinfection, ozone treatment and hybrid/alternative technologies.
- **Wastewater:** Black & Veatch has delivered more than 250 wastewater treatment projects in the U.S. over the last quarter century, totaling more than 8,500 MGD of capacity. A global leader in nutrient removal technology, we have delivered more than 3,500 MGD of biological nutrient removal projects. As an example, we are serving as program manager for the \$350 million SARP-10 program in Memphis, Tennessee to rehabilitate the city's aging sewer system.

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Transportation Sector Investments and Programs

- Federal investment to support, develop and accelerate the EV market, including grant and incentives for state and local governments and the private sector to build a national network of 500,000 EV chargers by 2030
- Electrify the federal fleet, including the United States Postal Service, and at least 20 percent of the school bus fleet
- The largest federal investment package in transportation infrastructure and resilience, including funding to modernize the bridges, highways, roads and main streets
 - Billions to modernize public transport, bringing more bus, bus rapid transit and rail service to (underserved) communities.
 - Repair back log, which includes replacing thousands of miles of track, signals and power systems
 - Dedicated funding to support ambitious projects

Black & Veatch Capabilities and Experience:

1st U.S. open-to-the-public heavy-duty vehicle charging site

1st U.S. network of hydrogen filling stations for fuel-cell electric vehicles (FCEVs)

Deployed over 1,500 electric vehicle (EV) charging sites; thousands of charging posts

- Strategic Roadmapping
- Business Feasibility Studies
- EV Charging Networks
- Hydrogen Filling Stations
- High-Powered Charging
- Renewable Energy and Energy Storage Integration

- Tesla selected Black & Veatch for build out of the Tesla Supercharger Network. To date, Black & Veatch has designed, engineered, permitted and/or constructed over 4,700 charging posts for 790 Tesla Supercharger sites in North America.
- Completed the overnight depot charging system that powers the 14 all-electric mass transit buses for Washington, D.C., Circulator. The electric fleet eliminates nearly 244,000 pounds of carbon dioxide emissions annually.
- Black & Veatch is designing, permitting and constructing nearly 5,000 DC Fast Charger posts at over 480 Electrify America sites. The nationwide network will dramatically reduce charging time for vehicle owners.
- FirstElement Fuel selected Black & Veatch to engineer, permit and construct 19 hydrogen fueling stations across California, the first stage of a comprehensive program to construct a state-wide hydrogen fueling infrastructure network. The project is the single largest deployment of hydrogen fueling stations in the U.S.
- Daimler Trucks North America and Portland General Electric teamed with Black & Veatch to deliver Electric Island, a first-of-its-kind high-powered public charging station for medium- and heavy-duty electric commercial trucks that will also serve as a testing and innovation location.

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Broadband Sector Investments and Programs

- New investments to revitalize America's digital infrastructure and build high-speed broadband infrastructure to reach 100-percent coverage

Black & Veatch Capabilities and Experience:

1st public private partnership for a statewide fiber optic network

45,000 miles of fiber deployed

150,000 wireless sites deployed

Ranked #2 for Telecommunications by *Engineering News-Record*

- Fiber Broadband
- Wireless Communications Networks
- Smart Cities

- Black & Veatch is partnering with the Pennsylvania Turnpike Commission (PTC) to launch a two phase, 220-mile advanced fiber optic network to boost connectivity, support all-electronic tolling and ITS for improved safety and mobility. Black & Veatch is conducting engineering, permitting, procurement and construction of PTC's fiber infrastructure.
- Member of public-private-partnership that developed a network of more than 3,300 miles (5,300 km) of high-speed, high-capacity fiber optic Internet connectivity. The statewide fiber optic network build included 120 counties.
- Provided constructability, design, permitting and installation/construction services to implement free public Wi-Fi in 27 city parks with Verizon.
- Developed ASSET360® data analytics platform to create a multi-dimensional view of systems, infrastructure assets and client processes that enable people to work smarter and more efficiently. It has been deployed for more than 100 clients worldwide.

Smart, Sustainable and Resilient Projects

- Black & Veatch is a charter organization with the Institute of Sustainable Infrastructure's Envision® holistic sustainability framework and rating system, which enables a thorough examination of the sustainability and resiliency of all types of civil infrastructure.
- By delivering several wind projects for Alliant Energy totalling 470 MW, Black & Veatch helped the utility obtain the Platinum Envision™ rating, the highest rating from the Institute.
- Black & Veatch is piloting its own Sustainable-by-Design procedures, committing to making these new procedures available across all its businesses as part of its 2023 Sustainability Commitments.

Accelerate