



Enabling a Modern Grid

Realize the economic and reliability benefits
of next-gen, distributed energy infrastructure



BLACK & VEATCH



Services and Solutions That Deliver Economically Viable, Next-Gen Energy Infrastructure.

Realizing the benefits of next-gen energy infrastructure requires vision and pragmatism. As leaders in power, water, telecommunications, asset management, and program execution we guide our clients through the rapidly evolving infrastructure lifecycle and sustainability goals as the rise of distributed infrastructure, and digitalization reshape their business and community.

Our blend of leadership, vision and practical experience has made us one of the foremost experts in grid enablement. And, through our full suite of new and operating asset services in **technical advisory and planning, engineering, program and construction management, and monitoring and maintenance**, we deliver innovative solutions our clients need to achieve their goals for reliability, resiliency, and sustainability.

Technical Advisory and Planning Services

A modern grid means greater diversity of infrastructure that must be actively managed to realize the goals of improved reliability, resiliency and sustainability. From distributed energy resources to electrification programs, our technical advisory and planning services cuts through the noise so our clients can realize the economic and reliability benefits of next-gen, distributed energy infrastructure.

- Electrification (e.g. EV for fleet)
- DER Adoption and Load Forecasting
- DER Locational Net Benefit Analysis
- Hosting Capacity Analysis
- Power Quality Analysis and Modeling
- Telecommunications Network Planning, including Private Wireless Networks
- Integrated Grid Planning (G/T/D Systems)
- Grid Modernization Technology Studies and Roadmap Development
- Next Generation Grid Architecture Design Capabilities
- Key Utility Metrics Reporting (e.g. SAIDI, SAIFI, CEMI)
- Technical Advisory Services for the Convergence of IT/OT:
 - Modeling/telemetry requirements to support visibility of DER impact to the grid
 - Cyber and Physical Security embedded in all aspects of Planning and Design

Engineering Solutions

Since 1915, Black & Veatch has been a world-leader in engineering services. This tradition continues as the profession of engineering evolves to meet the challenges that come with designing, building, and managing increasingly diverse and distributed energy infrastructure that will be integrated, efficient, and reliable for the next 100 years.

- DER Enablement and Deployment
- Distribution Automation
- Solar Photovoltaic
- Energy Storage
- Microgrids
- Combined Heat & Power
- Private Network Solutions

Program, Construction Management and Deployment

We offer many services in a comprehensive approach to program, construction management and deployment. It's an approach that includes managing entire systems and can process hundreds or thousands of separate activities with multiple ongoing projects. This adds value at each step of the project delivery:

- Vendor Selection and Management
- Program Budget Development, Forecasting and Tracking
- Equipment and Material Logistics and Tracking
- Construction Management
- Installation Testing and Commissioning
- GIS-based Program Management Software Applications

Monitoring and Maintenance Services

We are on the forefront of merging data analytics with engineering expertise to deliver timely and actionable insights that realize the full potential of centralized and distributed energy resources.

It begins by using integrated communications and analytics tools, like ASSET360®, that enable our engineers to monitor and diagnose opportunities for improvement and potential critical system failures. Then, we provide virtual issue notification, blogging and work ticketing for quick O&M response; locally or globally. It's this combination of advanced analytics, engineering expertise, and scalable processes that has helped our clients succeed for more than 20 years.

Real-Time Monitoring & Diagnostics

- Power Generation
- Industrial/CHP
- DERs
- Asset Health and Risk Analytics

Monitoring & Maintenance for Distributed Infrastructure

- Solar
- Battery Energy Storage Solutions (BESS)
- Reciprocating Engines
- Microgrid
- EV Charging
- Data Centers
- Distribution Power Systems

The Distributed, Integrated, and Efficient Energy Market

