S&W STONE & WEBSTER

Hydropower Generation Services



The Stone & Webster brand has a long history within hydropower generation dating back to the early 1900's with the construction of a paper mill hydroelectric plant in Maine (USA). From there, Stone & Webster's hydroelectric expertise expanded across the country to the Pacific Northwest, and continued to be in-demand throughout the mid-1900's during the peak of the U.S. hydroelectric development.

Today, Stone & Webster, Inc. supports the hydropower generation industry through a wide range of services and a staff of more than 650 engineers, many of whom are specialists in their field.

Our focus is centered around three areas:

- 1. **Balance of plant services**: Piping and valve replacement, cable and conduit routing, transformer refurbishment or replacement
- 2. Engineering and management support services for dam construction, turbine and/or generator refurbishment and replacement: Rigging services, structural load analysis, project controls, project management and integration
- 3. **Regulatory support programs**: Cyber security, engineering support services for licensing, physical security, fire protection and detection compliance

Stone & Webster can provide an entire suite of services from new dam design, to turbine and generator replacements, to operational maintenance support, and anything in between.

We're committed to providing innovative solutions to your challenges, while delivering projects safely, ontime and with the highest quality.

Services Provided

- Dam structural design and rehabilitation
- Structural and concrete assessments, and repair plans
- Hydrogenerator design and uprates
- Hydraulic systems analysis to optimize flow path and maximize generation capacity (Finite Element Analysis and Computational Fluid Dynamics)
- Cyber security critical asset identification, program implementation and program management
- Physical security protection systems and analysis
- Fire detection, suppression and protection programs
- Transformer, switchgear, motor control center and exciter upgrades and refurbishment
- Corrosion mitigation and material selection
- Design and refurbishment of gates and penstocks
- Geotechnical analysis
- Welding services
- Non-Destructive Examination and Testing services
- Rigging and lifting plans
- Piping and equipment condition assessments
- Project controls, estimating, and project management support
- EPCm Services
- Emergency planning and risk assessment & mitigation
- Instrumentation and Controls System Design and Upgrades (Digital Control System and PLC)

Stone & Webster 3735 Glen Lake Drive Charlotte, NC 28208 June 2018 Stone & Webster, Inc. is a unit of Westinghouse Electric Company.



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To learn more about Stone & Webster, visit **www.stoneandwebster.com** and follow us on LinkedIn at Stone & Webster.

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