



Creating Solutions Lasting Generations

POWER AND DAMS



WE KEEP OUR CLIENTS AT THE FOREFRONT
OF A RAPIDLY CHANGING WORLD

100
YEAR LEGACY

35
COUNTRIES

6
CONTINENTS

INNOVATIVE DESIGNS THAT ADVANCE
THEIR BUSINESSES AND COMMUNITIES

The rapid pace of change in Energy & Resources industries presents opportunities and mandates changes. We're helping our clients adapt and advance across areas of innovation and disruption like renewables, sustainability, and the food-energy-water nexus. We help clients adapt amidst unprecedented changes, advancing toward assets that are smarter and more efficient.

We bring sustainable and reliable power solutions that improve the quality of life in communities around the world. It takes creativity, expertise, and collaboration to successfully bring together the many pieces needed for large-scale, life-changing infrastructure projects. That's why we bring highly experienced multidisciplinary teams together with stakeholders of the community and clients to deliver innovative solutions that truly meet everyone's needs.

About Stantec

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of place and of belonging. That's why at Stantec, we always design with community in mind.

We care about the communities we serve—because they're our communities too. This allows us to assess what's needed and connect our expertise, to appreciate nuances and envision what's never been considered, to bring together diverse perspectives so we can collaborate toward a shared success.

We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

Stantec trades on the TSX and the NYSE under the symbol STN. Visit us at stantec.com or find us on social media.

22,000

Resources

400

Offices



Helping energize
millions of homes and
dozens of industries:
that's how we power
communities.





Power and Dams

As a leading energy, water, and environmental management consultancy, we're at the forefront of integrated sustainable solutions. We incorporate new technologies and innovative approaches to help clients keep ahead of changing market conditions, whether they're addressing infrastructure challenges or adapting to changing industry regulations.

With our knowledge of multiple energy markets and best practices across sectors, we help clients diversify and stabilize their business. With us, clients have the collective benefit and expertise of a full suite of engineering disciplines, environmental scientists, and project specialists.

We've developed a diverse, balanced suite of services based on our understanding of the industry's direction. Our projects are designed in harmony with the communities, businesses and the environments in which they are built. We bring new ideas to your projects built on our experience working across the globe. We are proud of our projects, as are the communities in which they exist, for their positive impact on the lives of the people they touch.

Whether partnering on a microgrid, delivering clean water and power to eastern Africa, or ensuring emergency water storage for southern California we keep clients at the forefront of a rapidly changing world with innovative designs that advance their businesses and communities.

Dams

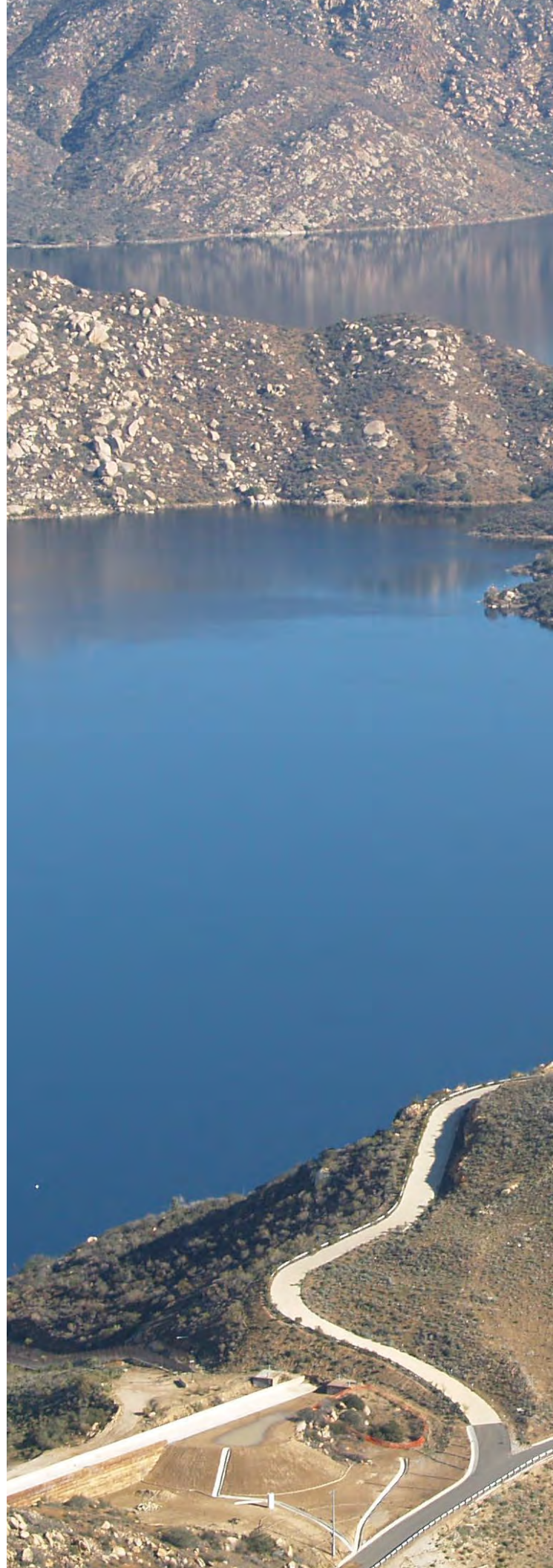
Long-term water storage solutions

Our reputation for innovation and quality engineering is built on experience in all types of dam design and construction. We have the in-house expertise and experience necessary to handle all aspects of project development, including the capability of assessing and addressing potential environmental impacts. We can draw on the skills and experience of a staff of engineers and scientists, many of whom have 20 or more years of continuous service with the firm in the planning, design, and implementation of dam and water resource projects.

Our team has consistently led the industry in the design of earth and rockfill dams and concrete dams and boasts several firsts. At three separate times, Stantec held the record for the world's highest rockfill dam. The company possesses the capabilities and experience for any dam-related project. Current experience includes dam projects on six of the seven continents.

No.4

in Dams and Reservoirs
(Top 15 Design Firms in
Environment, ENR 2018)









Hydropower

Providing a reliable renewable energy source

Stantec is a proven leader in the hydropower industry, consistently ranked by Engineer News Record (ENR) as a top firm. Dating back to 1920 we have developed hydroelectric projects, large and small, around the world. We are well versed in the regulatory and agency requirements for licensing, permitting and constructing hydro plants, having prepared and assisted in the preparation of client applications for multi-level requirements for licenses and exemptions. Our long-term, continuous position in the industry delivers hydropower owners and developers leadership in the assessment of their facilities and in making decisions for using their energy resources to power communities.

Our experienced engineers are poised to provide support for all elements of hydropower project development including:

- Conceptual project design
- Preparing cost estimates
- Sizing and selecting power-generating equipment
- Evaluating transmission and interconnection requirements
- Calculating expected energy
- Developing conceptual powerhouse configurations
- Preparation final designs for construction
- Construction management services

150K MW

There is now over 150,000MW of hydropower now in operation, designed by Stantec

Navigation & Locks

Revolutionizing World Trade

The complexity of navigation projects requires a partnership that delivers experience, expertise and continuous collaboration. Our sustainable ports, waterways, coastal engineering and construction projects deliver successful waterborne transport for the global shipping industry. Our navigation specialist provide high quality and cost-effective operations and maintenance, keeping energy and water utilization to a minimum, ensuring our goal of safety and efficiency in all of our projects.

WHAT WE CAN DO FOR YOU:

- Planning and Feasibility Studies
- Navigation Lock And Natural Channel Planning and Design
- Civil, Coastal, Structural, Hydraulic, Geotechnical, Electrical & Controls, Mechanical Engineering and Design
- Construction Management and Quality Assurance
- Cost Estimating and Scheduling
- Environmental Impact Assessments
- Sustainability and Climate Change Impacts
- Dredged Material Management Plans (Dmmp)
- Emergency Response/ Clean-Up Program Management
- Asset and Facilities Management
- Operations & Maintenance Planning and Support
- Facilities Information Modeling (Fim)
- Program and Project Management



300 Projects

We have completed more than 300 coastal, restoration, shoreline, ecosystem, wetland, and water resources projects throughout North America







Licensing & Regulatory

Helping navigate the permitting process

The regulatory environment is complex, ever-changing and involves multiple stakeholders. We help our clients navigate this dynamic process.

The first step in a successful project is securing efficient, timely regulatory and permitting approvals and public acceptance. In the US, our regulatory team provides expertise in FERC licensing and performs all the permitting tasks. Stantec is qualified in all of the technical disciplines to conduct the necessary studies and to manage the preparation of FERC License Application documents. Our expertise in FERC applications has been gained through services to investor-owned utilities on more than 100 relicense and initial license applications. Stantec's staff has in-depth knowledge of all of the issues pertinent in the relicensing process.

Stantec's regulatory and permitting staff has provided regulatory permitting support for 401 water quality certification and coastal zone management determinations. Our expertise in coordinating such settlement meetings enables us to provide clients with a program that facilitates the formal consultation process. Most importantly, it provides an avenue for developing solutions that are agreeable to all parties concerned rather than allowing a solution to be dictated through the hearing process in Washington, DC.

40+

Completed more than 40 FERC licensing projects in the past 15 years

Transmission and Distribution

The capability of a leading one-stop-shop, the flexibility and accessibility of a boutique firm

With our experience evaluating, designing, and commissioning T&D projects, we've learned how to best partner with our clients to bring them innovation specific to their needs.

We're flexible in what roles we can assume for our clients. We have experience providing services ranging from Owner's Engineer services to complete detailed design services to utility clients throughout North America.

Whether you require financial and technical analysis of an existing or proposed system, expansion and modernization of an existing system, or assistance with environmental and permitting issues, we have in-house experts in over 400 local offices offering:

- Transmission line engineering and design
- Substation engineering and design
- Studies and relay setting services
- Distribution engineering and design
- Project construction management services
- Energy storage & grid modernization

ADDITIONAL INTEGRATED T&D SERVICES

Our full suite of T&D services means we provide fully integrated project services, all in-house. Our T&D services include:

- Survey & Geomatics
- Environmental Assessments
Permitting & Compliance
- Geotechnical
- Transportation Infrastructure
- Telecom
- Physical Security
- Civil engineering
- A/C Mitigation Design



Everything you expect
in a full service T&D
engineering firm. And
some things you don't.



Project services from feasibility studies to decommissioning and everything in between.





Thermal Power Generation

The capability of a leading one-stop-shop, the flexibility and accessibility of a local firm

We focus on our clients on a facility basis and by addressing their entire fleet. Our approach is not based on a rigid pre-set delivery method, rather we deliver our services based on our client's needs. Our flexibility has enabled us to work for some of the largest organizations in the thermal generation market.

Our services range from Owner's Engineer services, to complete detailed engineering and design services for clients around the world.

Whether you require financial and technical analysis of an existing or proposed system, expansion and modernization of an existing plant, or assistance with environmental and permitting issues, Stantec has in-house experts in over 400 local offices offering:

- Reciprocating engine generation engineering and design
- Combustion turbine generation engineering and design
- Combined Heat & Power/ District Energy engineering and design
- Microgrid engineering and design
- Plant services
- Environmental compliance engineering and design

ADDITIONAL INTEGRATED THERMAL GENERATION SERVICES

Our full suite of thermal generation services means we provide integrated project teams, all in-house. The balance of our thermal generation services include:

- Survey & geomatics
- Environmental assessments, permitting & compliance
- Geotechnical
- Transmission and distribution engineering
- Architecture and buildings engineering
- Water treatment and infrastructure
- Gas transmission & distribution infrastructure
- Effluent guidelines

Renewable Energy

The one-stop-shop of a global company with the flexibility of a local firm.

The Stantec renewable energy team brings together experts from across disciplines as a one-stop-shop to deliver renewable energy projects from concept through to planning and design, commissioning, and start-up. We have experience with industry leading design standards and interconnection expertise with all major utilities to deliver projects on time and on budget.

Whether you require financial and technical analysis of an existing or proposed system, expansion and modernization of an existing plant, or assistance with environmental and permitting issues, we have in-house experts in over 400 local offices offering:

- Utility and Distributed Solar power engineering and design
- Onshore & Offshore Wind power engineering and design
- Project construction management services
- Environmental compliance engineering and design
- Energy storage and grid modernization

ADDITIONAL INTEGRATED RENEWABLE ENERGY SERVICES

Our full suite of renewable energy services means we provide integrated project teams, all in-house.

The balance of our renewable energy services includes:

- Survey and geomatics
- Environmental assessments, permitting and compliance
- Geotechnical
- Site management and remediation
- Asset management
- Feasibility studies and conceptual engineering





26,000+ MW

With over 15,000 MW of wind, and
11,000 MW of solar experience,
our numbers speak volumes.

Helping industrial communities improve their operations.





Heavy Industrial Processes

A history of leading heavy industrial process services for today's evolving market.

We've been active in the industrial process market for over 50 years, working on some of the largest processing facilities across North America. Along with developing an industry leading portfolio of projects, we've also developed our ability to be flexible in our approach and delivery of our work.

Our approach is not based on a rigid pre-set delivery method, rather we deliver our services based on our client's needs, starting with our flexible commercial terms, to our milestone payment options. Our services range from Owner's Engineer services, to full suite detailed engineering and design, and construction delivery services.

Whether you require financial and technical analysis of an existing or proposed system, expansion and modernization of an existing plant, or assistance with environmental and permitting issues, Stantec has in-house experts in over 400 local offices offering:

- Pulp, paper, tissue and packaging
- Building products
- Food processing

ADDITIONAL INTEGRATED HEAVY INDUSTRIAL PROCESS SERVICES

Our full suite of project services means we provide integrated project teams, all in-house. The balance of our heavy industrial process services include:

- Environmental assessments, permitting & compliance
- Geotechnical
- Transmission and distribution engineering
- Architecture and buildings engineering
- Water treatment and infrastructure
- Gas transmission & distribution infrastructure
- Thermal generation engineering services

Smart Technologies

The capability of a leading one-stop-shop, the flexibility and accessibility of a boutique firm

With our experience evaluating, designing, and commissioning smart technology projects, we've learned how to best partner with our clients to bring them innovation specific to their needs.

We're flexible in what roles we can assume for our clients. We have experience providing services ranging from Owner's Engineer services to complete detailed design services to utility clients throughout North America.

Whether you require financial and technical analysis of an existing or proposed system, expansion and modernization of an existing system, or assistance with environmental and permitting issues, we have in-house experts in over 400 local offices offering:

- Energy Storage
- Transit Electrification
- Microgrids
- Grid Modernization
- Project construction management services
- Environmental compliance engineering and design

ADDITIONAL INTEGRATED SMART TECHNOLOGIES SERVICES

Our full suite of smart technologies services means we provide fully integrated project services, all in-house. Our smart technology services include:

- Survey & Geomatics
- Environmental Assessments
Permitting & Compliance
- Geotechnical
- Transportation Infrastructure
- Feasibility studies and conceptual engineering

We were the first consultant to realize the need for Detailed Connection Assessments for BESS.







ADDITIONAL SERVICES



ASSET MANAGEMENT

At Stantec, we use asset management tools and data analysis to prioritize investments in hydropower resources to meet client objectives, including to improve reliability, profitability and safety. The asset-management framework is a foundation for a risk-based decision model, enhanced by our technical expertise in hydropower engineering that can be incorporated into an economic framework for analysis.



CONSTRUCTION MANAGEMENT

Stantec offers a full range of high-value, “start-to-finish” construction management services throughout the world for dams, hydropower, and locks and navigation projects. Because we often oversee construction and operate what we design for clients, our team knows first-hand what will or won’t work in the field. Our creative approaches to strategy, planning, and controls means we maintain high-quality construction, stay on schedule, and minimize costs effectively.



DUE DILIGENCE

Stantec has worked with public and private sector clients and financing institutions to provide due diligence and engineering support for asset valuation for acquisition, divestiture, and power and energy project transactions. We provide project reviews, and construction schedule, environmental and regulatory, and risk analyses. We bring significant experience with global stakeholders and have in-depth knowledge and understanding of international contractual standards.



PROGRAM MANAGEMENT

Our clients have faced a large increase in workload due to various regulatory drivers, aging infrastructure, natural disaster recovery, and customer-focused capital and operational challenges. Many are turning to program management experts to help deliver and improve these new plans. Our approach provides governance outcomes that result in consistency and efficiency while also allowing innovative ideas to be tested and incorporated into the overall delivery process.



REHABILITATION AND UPGRADES

For many in the hydropower market there has been a shift from new construction to the refurbishment, upgrade and life extension of existing facilities. Whether we are evaluating the structures for earthquakes, floods or forced outages, or the presence of alkali-aggregate reactivity, we work with you to determine remediation measures that best meets the needs of your structure and satisfies current safety requirements.

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