

Substation Research and Development Technical Specialist (R&D), Substations Technology and Testing Sector

Powertech Labs Inc, BC Hydro's subsidiary that specializes in energy research, consulting, testing, and systems integration, has been serving power utilities, oil and gas companies, automotive, and electrical utility equipment manufacturers since 1989. We operate as a separate, unregulated, for profit, commercial company. In addition to providing innovative R&D, consulting and testing services to BC Hydro, Powertech provides the majority of its services to a large and diverse array of clients across North America, and around the world. Powertech is located on an 11-acre campus in Surrey, British Columbia and has 200+ employees. Our reach and reputation are global, and we are recognized as a leader in technology, testing, and power systems software. Our location places us close to BC Hydro, 25 kilometers from the US border, and at a gateway between Asian and North American markets. Finally, we are located in one of the most desirable locations on the globe, with all the natural beauty of British Columbia on our doorstep. We call this home.

Powertech's brand and reputation command a dominant position in the power industry. To better serve our clients, we group our services under six market-oriented sectors: Generation, Transmission and Distribution, Substations, Power Systems, Grid Modernization and Advanced Transportation. Powertech's competitive advantage is enhanced through close collaboration between all sectors.

The company's staff consists of professional engineers, scientists, technologists and technicians from a wide range of disciplines. These highly skilled individuals have access to 21 well-equipped, specialized laboratories. Together, the resources allow us to offer a range of forward-looking technology services to help clients advance technology, solve complex problems, and maximize asset performance.

Finally, we are customer-focused: To ensure our customers have high confidence in our services, we attract the best resources, are highly responsive and constantly strive to improve the quality and value of our services.

Powertech has an exciting and challenging opportunity for a **Technical Specialist, Substation Research and Development (R&D)** – to join a team of professionals based at Powertech Labs in Surrey, B.C.

Business Overview

The Substations Technology and Testing Sector provides laboratory and field testing of substations equipment and infrastructure, including short-circuit testing, and environmental, transformer oil, SF₆ and lubricant testing. It also offers consulting and investigation services, including asset management studies, failure investigations, expert witness testimony, and development of testing programs. The Substation R&D work in the area of transformer life extension and transformer life estimation is world-renowned. This sector has a number of premier laboratories including High Current and Applied Chemistry (transformer insulating oil, SF₆ and mixed gas (CF₄/SF₆), PCBs, fuel and lubrication products). The Substation R&D and Applied Chemistry lab have a very prestigious and long-standing research and testing reputation in North America and around the world.

Specifically, the Substation R&D team is considered world-class in the areas of power transformers, and oil and gas insulation. It continues to initiate and lead global research into the lifecycle management of oils, SF₆, and transformers. Besides a considerable portfolio of routine laboratory testing services, it is continually advancing a number of innovative technologies in various stages of incubation and development, from concept through to commercialization.

Position Overview

The Substations R&D Technical Specialist will report to the Substations R&D Team Lead. The selected candidate will be expected to lead small, medium, and large scale (sometimes multi-disciplinary) projects of the world class

Substation R&D department. Responsibilities include establishing an understanding of the global industry trends, developing a long-range strategy, and operationalizing the plans to ensure continued customer engagement and support, growth, and day-to-day operational excellence. This is a technical and leadership role that requires teamwork with corporate support functions and the other Managers across Powertech Labs. The incumbent is expected to provide technical leadership, manage P&L and forward-looking Sales Funnel of business leads for the department, lead the business development and client engagement, and assist with the day-to-day management of the Substation R&D team. The selected candidate will be expected to engage both OEM (Original Equipment Manufacturers) and utility customers from around the globe to identify and develop new service offerings to meet emerging and present market needs and collaborate with market participants to advance technology and the associated industry standards. With a relentless focus on quality, cost and schedule, the incumbent is expected to pursue policies and activities that constantly raise the quality accreditation, performance, and profile of the Substation R&D team. The selected candidate must have a good working knowledge of ISO 9001, 17025, 45001, and 14001, as well as the accreditation process. The Substations R&D Technical Specialist will be expected to either maintain or support existing accreditations and strengthen and expand them over time.

Key Responsibilities

- Leads every aspect of the Substation R&D department laboratory's day-to-day operations and plays a key role in:
 - Innovation and market trending
 - Maintaining existing high-quality services to meet our client's needs and expectations
 - Growing our knowledge, capabilities and service base
 - Managing and coaching the team of 9 staff members.
- Leads the department in alignment with operational goals, strategies, and policies.
- Provides leadership and mentorship to department staff by providing ongoing performance feedback and professional development to ensure employee engagement and retention.
- Oversees day to day workload management including utilization rates for department staff.
- Reviews and manages proposal and takes the lead in contract negotiations.
- Manages projects and delegates assignments to departmental staff; ensures assignments are completed safely within deadlines and within quality expectations.
- Partners with other Managers and staff from other sectors and departments to facilitate resource sharing and collaboration.
- Partners with corporate support functions including Finance, Human Resources, Client Engagement, Legal and HSEQ (Health, Safety, Environment and Quality) to ensure compliance and efficiencies.
- Determines department staffing needs and actively participates in recruiting and offboarding measures.
- Helps to shape and execute the strategic direction for the Substation Sector and ensures alignment with all stakeholders including the Powertech leadership team.
- Assesses future market needs and develops strategies and plans for continued growth; this includes client engagement, development and marketing of new and existing services, capital investments, and development of new laboratories.
- Actively engages customers when soliciting and providing services and requesting feedback on services provided.
- Represents the Substations Sector around the globe; this position requires both local and international travel.
- Provides input and recommendations on the budget, work planning and resource allocation processes for the sector.
- Supports the Substations Sector Director in managing the financial performance of the Sector.
- Established record of research and development with research, standards and testing organizations (EPRI, CEATI, CIGRE, ASTM, etc).
- Participated in industrial forums such as CIGRE and/or IEEE standards working committees. Involvement and production in standards committees for the electric utility industry through EPRI, CIGRE, IEEE and/or ASTM.
- A solid understanding of transformer construction and, in particular, insulating board and paper.
- A good working knowledge of polymers, composites, organic and inorganic chemistry.

- Proven experience leading and conducting failure investigations and insurance claims whereby chemical analysis is required.
- Experience testing of components across a broad spectrum of industries (automotive, petrochemical, oil & gas, natural gas, hydrogen, electrical, consumer products, etc)
- Develop innovative engineering techniques and apply theoretical and practical knowledge in testing, analysis and problem resolution.
- Prepare and/or review and/or approve detailed technical reports.
- Develop standards, training guides and work procedures.
- Work within our quality program and accreditation (ISO 9001, 17025, etc).
- Ability to assess and identify risks. Assess and train staff.
- Ability to respond to customer requests for quotes, cost estimates, schedules, and proposals.

Qualifications

- A minimum of a Bachelor's degree in Engineering or Sciences. The degree must be recognized by universities in Canada. Demonstrated Project Management experience and post graduate qualifications in Electrical Engineering, Engineering Physics, Chemical Engineering, Physics, or Chemistry and/or Business is preferred.
- A Professional accreditation is required.
- Minimum of twelve years of experience in a laboratory and/or research environment and/or electrical equipment supplier (OEM) and/or diagnostics testing agency and/or electric utility in the area of substations or generation maintenance or asset management with progressively responsible management experience and project management skills.
- Demonstrated leadership of a team of world-class professional technical experts is an asset.
- Demonstrated confidence in all aspects of laboratory management is desirable.

Performance Competencies

- Demonstrated rigor in modeling awareness and behaviors for working safely in laboratories and the field.
- Broad technical knowledge of the global power utility industry.
- Knowledge and demonstrated ability to collaborate, conceive, lead and execute R&D projects.
- Demonstrated ability to manage the successful implementation and delivery of services and products to clients.
- Demonstrated commitment to quality including experience with ISO 9001, ISO 14001, ISO45001 and ISO/IEC 17025.
- Entrepreneurial and a proven track record in matching market information with an evolving service offering.
- Demonstrated ability to manage and execute a portfolio of projects covering all technical, resource and financial aspects.
- Excellent track-record of leadership, team building, change management, motivating and mentoring of staff.
- Excellent verbal, written and interpersonal communications skills including the ability to build successful relationships, make presentations to technical and non-technical audiences and liaise with peers in industry.
- Excellent decision making and problem-solving capabilities; the position requires prudent technical and business risk-taking.
- Ability to work in a dynamic and collaborative leadership team environment.
- Demonstrated strong interpersonal skills.

Location: Surrey B.C.
Job Status: Full-Time Regular
Compensation & Benefits: Powertech Labs Inc. offers a very comprehensive total rewards package based on a healthy work/life balance.
Close Date: December 18, 2021

Please be advised that this role has been assessed as safety sensitive and pre-qualification alcohol and drug testing will be required as a pre-condition to employment.

All successful candidates will be required to provide proof of full vaccination against COVID-19 prior to commencement of employment.

All qualified candidates are encouraged to apply, however Canadians and permanent residents will be given priority.

To apply and to obtain more information on Powertech Labs Inc. visit us at powertechlabs.com.