

Substations Transients Modelling Electrical Engineer			
Positions Available: 1			
Status:	Full-time (37.5 hrs/wk)	Job Location:	
	Permanent	Flexible Work Role:	
		Region:	Lower Mainland

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 most of its services to a large and diverse suite 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, as well as a wide range of professionals within the central Corporate functions. These highly skilled individuals have access to 21 well-equipped, specialized laboratories. Together, our resources allow us to offer a range of forward-looking technology services to help clients advance technology, solve complex problems, and maximize asset performance.

We are a customer-focused organization here to ensure our customers have high confidence in our services. To this end, we attract and hire the best resources, are highly responsive and constantly strive to improve the quality and value of our services.

JOB DESCRIPTION

Duties:

Reporting to the Senior Manager, the successful applicant will perform desktop analytical studies, set-up and conduct electrical tests, and write-up clear and concise study reports. Clients range from those based in British Columbia to equipment suppliers, utilities, industrials, and research organizations around the globe. Extensive knowledge and practical experience in modelling and simulation and equipment applications is required. This position entails hands-on modeling and simulation of power systems to conduct transients, harmonics, insulation coordination studies among others.

Major Responsibilities :

- * Perform desk-top analytical studies including but not limited to short circuit, grounding, induction, harmonics, transients, impact studies, temporary overvoltages, insulation coordination, disturbance analysis and failure analysis.
- * Develop innovative engineering techniques and apply theoretical and practical knowledge in testing, analysis and problem resolution
- * Participate and/or lead in the planning, preparation and execution of tests and equipment condition assessment according to international standards and customer requirements in the

laboratory and the field

- * Coordinate projects or components of projects including scheduling work and tracking costs in accordance with company's quality controls and leveraging company resources and processes
- * Prepare detailed technical reports
- * Maintain detailed documentation throughout all phases of analytical studies
- * Remain abreast of changes in technology, standards and the evolving global power industry
- * Participate in industry forums such as IEEE standards and CIGRE working committees
- * Promote Powertech services to existing and potential clients in order to provide a flow of projects and work for the group and Powertech
- * Respond to requests for quotations and requests for proposals from clients, and provide detailed technical proposals, cost estimates, and work schedules
- * Maintain professional relationships and communication with other departments, outside consultants, contractors and suppliers in order to effectively and efficiently gather and relay information and resolve issues of concern

Qualifications:

- * A recognized bachelor's degree in Electrical Engineering. A post graduate degree in Electrical/ Power Engineering or related areas is preferred.
- * Minimum of 5 years of related experience particularly in testing, equipment specifications, substations planning, operations & maintenance, commissioning & acceptance, and Protection & Control
- * Experience with distribution and/or transmission modeling and simulation studies
- * Experience in substation equipment, substation planning and design, testing and commissioning of substation equipment including protective relaying, maintenance of substation equipment, analytical studies (load flow, short circuit, protective device coordination, arc flash, grounding, harmonics) would be considered a definite asset
- * Registration or ability to immediately register as a professional engineer with the Engineers and Geoscientists of BC (i.e., non-British Columbia registrations are acceptable as long as there is an ability to immediately transfer the accreditation).
- * Extensive experience with simulation tools such as EMTP-RV, PSCAD, Etap, CDEGS, Matlab/ Simulink, etc.
- * Experience with RTDS simulation environment.
- * Capable of developing user-defined library models.
- * Software programming skills using Python, C++, C, Matlab.

Technical Skills and Experience

- * Technical knowledge in Electric Utility Engineering and/or heavy industrial experience
- * Electrical and mechanical assembly and construction skills
- * Introductory knowledge of project management
- * Hands-on experience with field test equipment, data acquisition and analysis equipment is desirable
- * Hands-on experience with power tools and shop equipment is desirable

Performance Competencies

- * Ability to communicate efficiently including verbal and technical writing, analytical, interpersonal, communications and presentation skills.
- * Strong interpersonal, communication, technical writing and organizational skills and ability to work in a team environment are essential.
- * Experience in project management including estimating, cost control and project administration is considered an asset.
- * Demonstrated ability to act as a task manager for multiple projects concurrently.

- * Demonstrated rigor in modeling safety behaviours and safety awareness for working in laboratories and the field
- * Good aptitude for marketing and client contacts
- * Ability to investigate, analyze and solve a variety of engineering problems, many of which are of a challenging and unusual nature.
- * Ability to optimally adapt to a constrained schedule and perform under pressure
- * Demonstrated ability to coordinate and lead multiple projects and to plan and manage project resources is desirable.

ADDITIONAL INFORMATION

Location: Surrey B.C.

Job Status: Full-Time Regular

Job Level: P2

Job Code: MCD1AA

* All applicants with lesser qualifications and relevant experience are encouraged to apply and may be considered at the appropriate level.

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.

A condition of employment for this job is that you maintain your Driver's License (Class 5) in good standing.

For Powertech Lab positions, the flexible work model options are different due to their specific operational requirements and details will be discussed at the interview stage

We're always looking for exceptional people to bring new ideas, fresh thinking and the motivation to help shape the electricity system in B.C. It's an exciting time to be a part of our team as we invest in our system and prepare to meet the challenges of tomorrow.

Our values guide our work. Want to join us?

We are safe.

We are here for our customers.

We are one team.

We include everyone.

We act with integrity and respect.

We are forward thinking.

BC Hydro is an equal opportunity employer.

We include everyone. We welcome applications from anyone, including members of visible minorities, women, Indigenous peoples, persons with disabilities, persons of minority sexual orientations and gender identities, and others with the skills and knowledge to productively engage with diverse communities.

We are also happy to provide reasonable accommodations throughout the selection process and while working at BC Hydro. If you require support applying online because you are a person with a disability, please contact us at Recruitmenthelp@BCHydro.com.

BC Hydro has a COVID-19 Vaccination Policy that requires employees to have a full series of COVID-19 vaccine and provide proof of vaccination on request. This Policy is currently suspended but may resume at BC Hydro's discretion. While the Policy is suspended, all new employees are required to disclose their vaccination status to BC Hydro.

Flexible work model role definitions

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Our four role types identify the degree of flexibility an employee could have to work from home based on the type of work they do. The flexibility for an individual job is up to the manager for each position and the operational requirements. Employees also have the right to work full-time from the office if they prefer. All of our roles require at least some in-person time.

- IBEW/Field – No option to work from home
- Resident – Works primarily (4+ days per week) in the office.
- Hybrid – May be able to work from home up to 3 days per week.
- Remote – Works from home 4+ days per week

HOW TO APPLY

To learn more about Powertech Labs Inc., visit us at <https://www.powertechlabs.com>.

ALL CANDIDATES ARE REQUIRED TO ATTACH A COPY OF THEIR COVER LETTER, RESUME and ACADEMIC TRANSCRIPTS.

Note that applicants are required to submit/upload a copy of their College transcripts and Diploma as proof of post secondary graduation. If applicable, a copy of your work visa is also required.

INCOMPLETE OR LATE APPLICATIONS CANNOT BE PROCESSED. This will ensure we have all the necessary information to assess your application without any delays.

Click on the Apply button in order to complete the steps to apply for this job.

Date Posted:	2022-11-02	Closing Date:	2022-11-30
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