

## A workplace powered by you

Powertech Labs Inc is a cleantech company with the mission of being a trusted innovation partner providing solutions, specialised testing, and technical expertise for a safe and sustainable global energy future. Powertech has a global reputation for delivering transformative solutions in both the electric power industry as well as the transport sector.

We are always guided by our values as a global clean-technology and engineering company:

- **Safety:** This top everything. We do our work safely or we do not do it at all.
- **Challenges:** We ready ourselves for the hardest challenges – through attaining accreditations, developing industry-leading innovative products & services, investing in our labs, hiring great people, and making them better.
- **Diverse Teams:** We are strongest together and capitalize on our varied attributes – together we are more than the sum of parts.
- **Our Customers:** Customers fuel this company and we constantly work with them to earn and retain their trust and loyalty. We expect that our customers hold us accountable to our commitments.
- **Excellence:** Striving for excellence, acting with integrity, and having the highest standards in quality are core to what we do.

---

## Substation Studies Engineer

Number of positions: 2

Addition to Headcount (within Plan)

Employment type: Permanent

Job Location:

Hours of work: Full-time (37.5 hrs/wk)

Region: Lower Mainland

Annual salary: \$ 87,720-\$ 110, 940.00

Flexible Work Role: Hybrid

Job Code: /

Affiliation:

Business Group:

Dept. Name:

Cost Centre:

---

## What you'll do

Engineering Service Business Unit focuses on power system software development, power system and substation consulting studies and compliance testing services, as well as asset management solutions for electric utilities and other clients in power industry. We are the vendor of the cutting-edge power system analysis software package, DSATools™, which has been recognized globally as leading-edge technologies and software platforms for dynamic security assessment of large complex power systems for both off-line (system planning) and on-line applications (near-real-time operation). We are also one of power system consulting teams well recognized internationally. We are providing a full spectrum of study services from fast electromagnetic transient switching studies, to typical power system planning and operation studies, post-mortem investigation of system disturbances and equipment failures, grounding, and to protection and insulation coordination studies.

As a member of the Substations Studies team your role will be to perform desktop analytical studies including modelling and simulation applied to transient analysis, impact studies, equipment failure investigations, insulation coordination, equipment specification, grounding, and arc-flash studies, setting-up and conducting electrical tests associated to stations equipment and grounding, and write-up of clear and concise study reports. Our clients include equipment suppliers, utilities, industrials, and engineering firms around the globe.

Major Responsibilities :

- Perform desk-top analytical studies
- Conduct arc flash, induction and grounding studies (independent level)
- Conducting electromagnetic transients, insulation coordination, short circuit and harmonic studies
- Carry out failure analysis investigations
- Maintain detailed documentation throughout all phases of analytical studies or testing
- Prepare detailed technical reports

- Develop innovative engineering techniques and apply theoretical and practical knowledge in modelling, analysis, and problem resolution
- Participate in and/or lead the planning, preparation and execution of tests and equipment condition assessment according to international standards and customer requirements in the laboratory and the field
- Work within our quality program and accreditation and, as required, work to expand our quality accreditation
- Remain abreast of changes in technology, standards, and the evolving global power industry
- 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
- Develops collaborative relationships within and external to Powertech in support of business objectives
- Resolves moderately complex problems independently under areas of authority
- Conceive and explore new services opportunities

### **What you bring**

- The successful applicant preferably will have a Master's or Ph.D. degree in Electrical Engineering. Applicants who have bachelor's degree in Electrical Engineering with direct work experience will be considered.
- Registered or eligible for registration as a Professional Engineer or Engineer in Training with Engineers and Geoscientists British Columbia (i.e., non-British Columbia registrations are acceptable as long as there is an ability to immediately transfer the accreditation).
- Minimum of 4 years modelling experience &/or related experience in ETAP for Arc Flash studies, CDEGS (HIFREQ) for Grounding and Induction studies. Experience in PSCAD, EMTP-RV, ASPEN, WinIGS, Matlab, Comsol is desirable and would be considered a definite asset
- 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, insulation coordination, arc flash, grounding, harmonics) would be considered a definite asset
- Experience identifying, analyzing, and resolving Electrical Engineering problems
- Technical knowledge in Electric Utility Engineering and/or heavy industrial experience
- General technical knowledge in generation, transmission, maintenance, apparatus, civil structures and/or control functions would be an asset
- Introductory knowledge of project management including estimating, cost control and project administration is considered an asset.

In addition, these are performance competencies that will contribute to the employee's success :

- Able to plan ahead, solve engineering problems, increase efficiency and get things done safely
- Able to engage with stakeholders, understand business needs, priorities as well as project impacts
- Demonstrates a strategic focus, can adapt to a constrained schedule and perform well under time pressure
- Good aptitude for business development and establishing new client contacts
- Demonstrates the importance of self-development and team work
- Understands finances and KPIs
- Able to develop collaborative relationships
- Effective written and verbal communication skills and comfortable in delivering presentation to a variety of stakeholders

### **What we offer**

Job Status: Full-Time Regular

Job Level: P2

Job Code: MCD1AA

Job location : Surrey

Candidates with proper educational background with lesser relevant experience are encouraged to apply and may be considered at the P1 level

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

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

### What else you should know

Powertech Labs 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 Powertech Labs.

Maintaining customer-confidence and our reputation is key: To this end, all our campus and laboratories are accredited to ISO9001 (quality), ISO14001 (environment stewardship) and ISO45001 (safety) and IEC/ISO 17025 for over 100 standards. To complement the focus on accreditation, we encourage our experts to drive global standards and provide development opportunities for all staff to grow in their role and to advance in their careers.

Working at Powertech is not a job but a career. If you want to be a part of a growing clean technology company that is impactful and working towards a common goal of accelerating the world towards a net zero carbon future, come and join our team.

Before you apply, please confirm you meet Powertech/BCH time in role requirement. M&P employees must meet the time in role requirement specified in their most recent offer letter. For MoveUP employees, the current time in role as outlined in the Collective Agreements will apply.

Don't forget to update your Candidate Profile with your current resume and copies of your certifications. If applicable, include your Trades Qualification. This will ensure we have all the necessary information to assess your application without any delays.

**Date Posted:** 2024-10-21

**Closing Date:** 2024-11-03

**Recruitment Partner:** Cherry Longaza

**Email:** [CHERRY.LONGAZA@POWERTECHLABS.COM](mailto:CHERRY.LONGAZA@POWERTECHLABS.COM)

**Hiring Manager:** Jorge Hollman

**Email:** [JORGE.HOLLMAN@BCHYDRO.COM](mailto:JORGE.HOLLMAN@BCHYDRO.COM)

For internal use 51931620