



Storing electricity in metal

e-Zn Inc.
25 Advance Road
Toronto, Ontario
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Job Description – R&D Scientist/Engineer

About e-Zinc

e-Zinc is an energy storage startup based in Toronto with a breakthrough technology poised to disrupt the market. As the global energy grid moves to higher levels of penetration of renewable energy, there will be an exponential increase in demand for low-cost, flexible, long-duration energy storage. This is the market targeted by e-Zinc, the first in the world to “metalize” electricity. e-Zinc technology is also fire resistant, made of fully recyclable materials, does not rely on precious metals, and has a fast response time.

e-Zinc has recently won a number of awards for its technology and business plan including;

- [Raised \\$3.5M in an oversubscribed round and were featured in Greentech Media](#)
- Won a \$2M grant from Sustainable Development Technology Canada
- [Won a \\$1.6M grant through Breakthrough Energy Solutions Canada](#)
- [Won a USD \\$1.3M grant through California Energy Commission’s solicitation for non-lithium technologies](#)
- [Won a \\$700K grant as a finalist in NRCan’s Charging the Future Challenge](#)
- [Named to Cleantech Groups Top 50 companies to watch](#)

e-Zinc is now well capitalized through venture and grant financing to fund its future growth. This promising cleantech venture is now looking to expand its talented team to bring its technology to market to support the renewable energy transformation.

Opportunity

e-Zinc is searching for an exceptionally talented R&D Scientist/Engineer to be responsible for helping the Technology Development team to advance the e-Zinc Zinc-Air Energy Storage Cell. This is a rare opportunity that will provide a platform for the right person to help shape a young company’s technology and product strategy and contribute meaningfully to its success. The ideal candidate will appreciate this because they thrive in an entrepreneurial environment, is intelligent and technically savvy, has a passion for success, and will stop at nothing to ensure we achieve our goals collaboratively and collectively.

Accountability

Reporting to the Director of Technology Development, the R&D Scientist/Engineer is responsible for developing and conducting experiments, collecting data, interpreting results, and communicating the results to the relevant team members. Being able to develop and conduct experiments in a way to obtain valuable data to help reach the objectives of the e-Zinc team is critical.



The candidate will have an in-depth knowledge of the scientific method, electrochemical techniques, and designing test apparatus. The candidate will have excellent judgement, attention to detail, written communication skills, and be able to prioritize tasks in the context of meeting key results and objectives that have been collaboratively set by themselves and their manager.

This role has a hands-on component that will appeal to an early to mid-career scientist looking to continue their career in the field of energy storage technologies. In addition, the person is expected to play dynamic roles in supervising junior team members and co-op students, selecting and specifying test equipment and laboratory instruments, and making recommendations for test process improvements depending on the needs of the company, and in doing so, will take on more responsibilities as the business grows.

Position scope and responsibilities

- Testing e-Zinc battery cells for various performance metrics and performing A/B tests on full cells and bench scale experiments
- Maintaining thorough and understandable notes and experimental reports/ project summaries that highlight key results
- Performing scientific studies on effects of different components/ chemistries on various aspects of performance both on the benchtop and on full-sized battery cells
- Assessing the practicality of a particular technology solution in the context of business and technical needs/targets
- Supervising and recruiting team members to help them work on various aspects of the e-Zinc technology
- Training and mentoring co-op students and interns
- Performing structure-property relationships on various materials in respect to their performance in an environment similar to that of an e-Zinc battery cell
- Designing experiments and equipment/set ups that are required to complete work
- Building mathematical and physical models to predict and understand different aspects of the technology
- Collaborating with team members and different departments to solve technical issues
- Providing technical input to the various teams within e-Zinc
- Maintaining a safe work environment for yourself and other

Qualifications

- Minimum of a Masters degree in chemical engineering/electrochemistry/materials science plus 1-5 years of work experience in relevant electrochemical processes/ devices. A PhD with a focus on electrochemical systems is an asset.



- Solid understanding and experience in all associated aspects of scientific research related to electrochemistry.
- In-depth knowledge of corrosion and materials compatibility.
- Wide range of interest and knowledge base in multiple scientific disciplines; ability to quickly grasp and develop the subject matter expertise required to develop solutions to meet technology objectives.
- Superior time management and organizational skills.
- A self-starter and adaptive learner. Motivated to strive and succeed in a start-up environment.
- Must be legally eligible to work in Canada.

Other Skills

- Passionate about bringing new cleantech energy innovation to market.
- Experience in the battery, energy storage or the renewable power industry is considered an asset.
- Committed to the firm's success and motivated to strive and succeed in a start-up environment.
- Disciplined, hard-working and action-oriented.
- Exceptional communications skills – oral, written, and presentation skills.
- High level of maturity, integrity and personal effectiveness.
- Personal accountability and commitment to achieving and exceeding goals and objectives.

Hours of Work and Location

- Must be able to meet the physical demands of the position.
- Flexibility to work any shift to support product development timelines.
- Flexibility to travel domestically and internationally to conferences, tradeshow, and partner sites.

Language of Work

- Work is conducted in English.

Applicants should submit a cover letter with their application.