

Company Case Study: Cleantech





About Illuming Power Inc.

Illuming Power Inc. is an innovative hydrogen fuel cell company dedicated to designing and prototyping advanced fuel cell stacks, components, and materials that provide clean power solutions for heavy-duty applications. Established in 2017, the company has grown to 16 full-time staff, leveraging expertise in hydrogen fuel cells to create custom solutions for applications ranging from stationary power to mobility.

Operating out of an industrial facility in East Vancouver, Illuming Power has invested significantly in building a high-tech research and development space. "We intentionally chose an urban location to create an environment where engineers and scientists can thrive while enjoying the benefits of being close to where they live," said Simon Farrington, Co-Founder and Chief Technology Officer.

Why the Metro Vancouver Region?

The Metro Vancouver region has established itself as a global center for hydrogen fuel cell development, an industry that has flourished due to the early work of several pioneering companies and strong local academic and research infrastructure. The concentration of hydrogen expertise in the Metro Vancouver region has provided Illuming Power with a strong talent pool and a network of like-minded innovators.

"This region has been a world-renowned hub for fuel cell development for decades," said Farrington. "The expertise here is unmatched, and it's why I moved from Scotland 25 years ago to work in this field. Many of us attended the 'University of Ballard Power' in our early days —meaning we've formed our expertise from working in the technology development ecosystem that has pioneered hydrogen fuel cells."

Beyond access to talent, the region's high quality of life has helped Illuming Power attract and retain its workforce. Farrington noted that employee satisfaction is a key factor in the company's decision to stay in the region. "A good environment creates innovation, so if I asked anyone to move to a lower-cost jurisdiction to boost revenue, I'd get a unanimous 'no."



Leveraging Local Talent and Research

Illuming Power has actively collaborated with local universities and research institutions to drive innovation. The company engages with graduates from the University of British Columbia and Simon Fraser University (SFU), hiring engineers and leveraging research infrastructure to advance its R&D initiatives.

Additionally, the company has benefited from government-funded research support. Illuming Power has worked in SFU's 4D Labs, utilizing advanced equipment such as scanning electron microscopes that would otherwise be prohibitively expensive for a small company to acquire. The company has also partnered with university spin-offs and startups developing critical components for hydrogen fuel cells.

"Programs like The National Research Council of Canada Industrial Research Assistance Program (NRC IRAP) and Scientific Research and Experimental Development (SR&ED) tax credits are crucial for small businesses like ours," Farrington emphasized. "Without that industrial support, we wouldn't be able to sustain R&D operations and turn the output into commercial products."



Scaling a Clean Energy Business

As a company focused on next-generation hydrogen fuel cell technology, Illuming Power is well-positioned to support Canada's clean energy transition. The company continues to expand its research and the volume of its prototyping capabilities, working with international partners to deploy hydrogen-powered solutions to displace diesel power.

Canada's clean energy policies and global partnerships are creating new opportunities. Illuming Power is also optimistic about growing demand from European markets, where strict emissions regulations are driving adoption of hydrogen technologies. "Canada's tie-up with European clean energy initiatives is a real opportunity," Farrington noted. "If we can align our expertise with emerging policies and markets, we have a chance to make a global impact."

Looking Ahead

Illuming Power is focused on expanding its business development network and securing long-term commercial partnerships to drive growth. The company plans to continue investing in research while working with customers to bring hydrogen fuel cell technology to market

By remaining in the Metro Vancouver region, Illuming Power benefits from a skilled workforce, strong research infrastructure, and access to global clean energy markets. As the hydrogen industry evolves, the company is well-positioned to remain at the cutting edge of sustainable energy solutions.



