

## FOR IMMEDIATE RELEASE

### **PowerDisc Breakthrough Proves Uniform Current Distribution, Providing Improved Fuel Cell Performance & Durability Benefits**

Technical Presentation at HFC 2013 Conference in Vancouver, June 18<sup>th</sup>

Vancouver, BC – June 11, 2013 – [PowerDisc Development Corporation](#), a [fuel cell company](#) based in Vancouver BC, has announced that eFlow™ – a novel fuel cell design – has solved one of the most challenging issues within the fuel cell industry: unequal current distribution.

“The fuel cell industry has spent a significant amount of time and money solving issues that stem from non-uniform current, including accelerated aging, and lower power output,” said Dr. Sean MacKinnon, PowerDisc’s Chief Scientist, formerly with Canada’s National Research Council, Ballard Power Systems and GM’s Fuel Cell Division. “[eFlow™](#) enables a totally new approach to fuel cell design, from component to system.”

eFlow™ improves the flow of oxygen, fuel and water within a fuel cell and avoids degradation of the fuel cell membrane and stack materials. The net result is that eFlow™ increases overall fuel cell durability, enables higher peak power, and significantly reduces cost due to greater membrane resiliency, the elimination of costly system components, and improved lifetime.

“To date, no one in the industry has been able to design using uniform current distribution, the holy grail of optimal fuel cell operation. Now they can. This will have a profound impact on how next generation membrane electrode assemblies, plates and auxiliary components will be developed.” Dr. MacKinnon will describe eFlow™ technology at [HFC 2013](#) in Vancouver during the *Porous Media and Bipolar Plate* session which begins at 10:30 AM on June 18, 2013.

#### **The Economic Benefits of Uniform Current Distribution**

“The advantages of uniform current distribution will have an important commercial impact in the fuel cell industry,” stated Dag Hinrichs, PowerDisc’s VP of Business Development. “eFlow can improve the customer’s business case simultaneously from multiple angles -- more peak power, extended longevity, reduced fuel cell size, less balance of plant and lower maintenance costs. If a business breakthrough is defined by cutting the tie between cost and performance, then we have that breakthrough.”

Mr. Hinrichs suggests that when these benefits are added up, the [levelized cost of energy](#) (LCOE) will reveal new areas where fuel cells can compete with incumbent technologies. “Fuel cells using eFlow™ will gain performance and ‘cost out’ benefits that open more markets where fuel cells can compete with traditional power solutions. The cost per kilowatt-hour comparisons look good, it’s exciting.”

LCOE is an analysis of the cost of electricity generation that sums up in a “cost per kilowatt hour” format. It helps business leaders, policy makers, and researchers make decisions regarding different kinds of energy generation.

## **Product Integration**

To assist with the integration of eFlow™ in stationary and automotive applications, PowerDisc provides design and engineering services support. Mr. Hinrichs explained, “Some companies come to PowerDisc looking for a way to leapfrog their new fuel cell programs, while other more experienced firms are seeking PowerDisc’s support for their next generation stacks. Either way, within a few years, it’s hard to see the technology leader not including eFlow™ in their system.”

PowerDisc’s President and CEO, Mr. David Leger, has been working on the technology with inventor and engineer Mr. Greg Montie B.Eng for over a decade. “This technology has the opportunity to propel the role fuel cells will play in a renewable energy world. I don’t expect people to take it on face value - there is certainly a process of due diligence required. We have made a significant discovery and now invite people to bring their open minded skepticism and talk with us.”

Interested parties are encouraged to visit PowerDisc at booth #321 at [HFC 2013](#), hosted by the Canadian Hydrogen & Fuel Cell Association.

## **About PowerDisc**

PowerDisc Development Corporation is an alternative energy company that designs, develops and markets fuel cell technology solutions in a number of global markets for a range of applications including stationary, back-up power, transportation, material handling and portable applications. The company’s technologies enable fuel cell developers and integrators to optimize product performance, improve durability, eliminate costly components, and accelerate down the cost curve earlier than anticipated. Research and development facilities are based in Vancouver, Canada – the worldwide hub for fuel cell research and development – at the National Research Council of Canada located at the University of British Columbia. For further information, visit [www.powerdisc.ca](http://www.powerdisc.ca).

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