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PolyFuel

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PolyFuel CEO Credits U.S. Department of Energy Support in Company's Recent Fuel Cell Advances

Funding Challenging to Get, but Payoffs Are Important and Far Reaching Says Balcom

HOLLYWOOD, Calif.--(BUSINESS WIRE)--PolyFuel president and CEO Jim Balcom credits the U.S. Department of Energy in providing “critical and timely” support of his company’s development efforts, in a program that has led to significant advances in portable fuel cell technology. The Silicon Valley fuel cell pioneer said that it is just one step short of introducing an alternative, “non-stop” power technology for laptop computers that will outperform the familiar Lithium-ion battery packs used today. And, said the company, the goal is imminent.

Speaking today at the 2nd Annual Tech Policy Summit in Hollywood, CA, Balcom argued that certain classes of important problems absolutely require government support, and would likely otherwise not find solutions; particularly difficult are intractable problems that take years – even decades – of focus. The Tech Policy Summit attracts leaders from the public and private sectors to nonpartisan talks about policy issues that impact technology innovation and adoption, particularly in the United States.

“Market-driven forces are not enough to fuel certain advances that involve deep science, major infrastructure changes, changes in the regulatory environment, or cut across multiple disciplines,” said Balcom. “But when the potential benefits to society are great enough – either directly, or through technology fallout – then the government can and must play a role.”

Balcom’s company, spun out in 1999 from the research institute SRI International, is one of the world leaders in fundamental fuel cell technology. Fuel cells, which can be thought of as refillable batteries that will essentially run “indefinitely,” as long as a fuel, such as alcohol, is supplied, are considered a key part of any future strategy for reducing society’s dependence on imported oil, and solving the global warming problem.

PolyFuel sought assistance from the Department of Energy several years ago to fund a special program to make a fully-functional fuel-cell-based laptop power module that could outperform the conventional benchmark – the heavy, short-lived, and occasionally notorious Lithium-ion batteries that plug into the back of our laptop computers.

This was a departure for PolyFuel, which was founded with the narrower focus “to develop the world’s best fuel cell ‘membranes’” – the exotic plastic film that makes the transformation of fuel directly into electricity possible. However, watching the uncertain pace of fuel cell development around the world, Balcom and his fellow executives agreed that PolyFuel absolutely had to lend its expertise in solving the larger problem – a commercially-viable power supply prototype that demanded no compromises from potential users. The only challenge was funding the effort.

“With all of the power-hungry applications eating up batteries on our laptops and handheld computers, we concluded that portable fuel cells had an immediate and growing market demand, and could achieve a mass commercial market years ahead of the ecological “brass ring” – automotive fuel cells,” said Balcom. “Additionally, we thought that the technology fallout

from portable fuel cells would be profound – in essence, a cost-driven, high volume market that could spin out one advance after another for the benefit of the more challenging automotive fuel cell power systems."

Fortunately, according to Balcom, the DOE shared this point of view, and the company subsequently received a multi-year cost-shared grant to create such a prototype.

The process was not without its challenges, however, and Balcom called for an examination of the processes that can and do easily overlook small startup companies such as his.

"We thought our Silicon Valley pedigree would help us in garnering the attention of our California elected representatives, whose sponsorship is crucial in Washington, but it was just the opposite," lamented Balcom. "There are so many 'big fish' in California's technology industry, that the voice of a small company – however cutting edge or important its advances – gets drowned out. For a follow-up program, we had to find our partner – and political support – from a Florida university, and the Florida congressional delegation in Washington, DC."

Congressman John Larson, member of the House Ways and Means Committee, has described fuel cells as the ideal "triple play" – a way to reduce America's dependence upon foreign oil, help reduce greenhouse gases, and create new domestic technology – all at the same time.

About PolyFuel

PolyFuel (www.polyfuel.com) is a world leader in fuel cell technology, particularly engineered membranes, that provides significantly improved performance in both direct methanol and hydrogen fuel cells, especially for portable electronic and automotive applications. The state of the art in fuel cells is closely tied to the membrane, and PolyFuel's best in class, hydrocarbon-based membranes enable a new generation of fuel cells that for the first time can deliver on the long-awaited promise of clean, long-running, and cost-effective portable power.

PolyFuel has an unmatched capability to rapidly translate the system-level requirements of fuel cell designers and manufacturers into engineered polymer nano-architectures. Such capability — based on PolyFuel's more than 150 combined years of fuel cell experience, world-class polymer nano-architects, and a fundamental patent position covering more than 25 different inventions — also makes PolyFuel an essential development partner and supplier to any company seeking to advance the state of the art in fuel cells. Fuel cells built with PolyFuel's hydrocarbon membranes, as the Company's own performance-leading reference designs have demonstrated, can be smaller, lighter, longer-running, more efficient, less expensive and more robust than those made with other membrane materials.

PolyFuel is working with many of the world's most advanced portable fuel cell system developers, the majority of whom are household brand name consumer electronics manufacturers. Leading Japanese and Korean consumer electronics companies rank PolyFuel's hydrocarbon membrane as the best portable fuel cell membrane available in the world today, and its DMFC stack and now system technology, which it readily shares with its customers, is unsurpassed.

PolyFuel was spun out of SRI International (formerly the Stanford Research Institute) in 1999, after 14 years of applied membrane research. The company is based in Mountain View, California, and is publicly listed on the AIM market of the London Stock Exchange.

Additional background information is available at www.roeder-johnson.com.

This news release may contain forward-looking statements, including with respect to the development of the fuel cell market. Readers are cautioned that such forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in the development and commercialization of potential products. Actual results may differ materially from the results anticipated in these forward-looking statements.

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See also: "*PolyFuel Meets Key Milestones on its Roadmap to Help Kickstart Commercial Market for Notebook Fuel-Cell Power Supplies*" (http://www.roeder-johnson.com/RJDocs/POsinglecell0227.html), February 27, 2008.

"*PolyFuel A Beneficiary of Key U.S. Department of Energy Portable Fuel Cell Development Funding*" (http://www.roeder-johnson.com/RJDocs/POfunding0510.html), May 10, 2007.

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