



## Feature No. 31 - Electrocell



The offices of Electrocell are deceptively minimalist at first glance. Hidden away in the margins of the São Paulo University campus, one would not expect the grey concrete walls of the Technology-Based Incubator Center (CIETEC) to house a company that considers itself to be one of the forbearers of the hydrogen economy revolution in Brazil. Yet this is exactly the venture Gerhard Ett and Gilberto Janólio embarked upon when they brought their respective projects teams together to form a fuel cell manufacturing and commercialization business in 1998. Gerhard recounts with a nostalgic grin how the company that today is a Latin American leader in fuel cell technology was created due to a chance meeting of a chemical engineer and a battery systems expert in the

CIETEC coffee bar – this humble lounge was where Gerhard and Gilberto realized they both had the fuel cell experience and the technical knowledge necessary to enter the nascent hydrogen energy sector.

One of the main advantages of Electrocell is its team's extensive experience in the technical aspects of fuel cell production and application, as evidenced by the huge amount of handmade technologies lying around the fuel cell office which can range from cell test kits to the occasional hydrogen powered bicycle. The team's expertise lends them the ability to produce fuel cells that are equipped for a variety of purposes. Electrocell's patented PEM technology is ideal for commercial use since, unlike with other fuel cell systems, all of the necessary parts and materials are widely available on the open market. While Electrocell has 3 patents and 12 more awaiting approval, they are focusing largely on stationary units for back-up power support to large facilities. The first 50 kilowatt unit produced by Electrocell now powers one of the university buildings adjacent to CIETEC and has been acquired by companies as backup power for a telecom station. The team has also designed their fuel cells to convert energy from a variety of sources including water, wind, solar, natural gas and ethanol, making the Electrocell solution adaptable to an array of potential future energy trends. Electrocell has been widely acclaimed for this innovative technology by such groups as the Brazilian National Confederation of Industry (CNI), which selected the enterprise over 64,000 other candidates to receive the sustainable development award in 2004.

While Electrocell has been successful in producing and selling units on-site, they are currently seeking investment to expand production in order to position the company as a market leader in what is expected to be a one trillion dollar fuel cell industry by 2021. Electrocell has already engaged in partnerships with several government organizations, but the directors are looking to take advantage of opportunities in the public and private sector to create clean, decentralized power systems on a larger scale. The Electrocell solution is ideal for rural populations that would be able to rely on environmentally friendly energy despite being far from a larger source, and the electricity from local fuel cells is delivered much more efficiently than miles of power lines that tend to lose up to 15 percent of the energy they transmit. This is a clear solution in Brazil's emerging economy, where total energy demand is expected to rise 65 percent in the next ten years, likely outpacing the ability of the government to provide a consistent supply for all. As countries in the export market steadily move toward a hydrogen economy, the Electrocell team will be prepared to offer a versatile and efficient solution; and with the company's ambitious sales target of 1,000 units per year by 2011, a clean energy future may not be so far away.

To learn more about Electrocell, visit [www.electrocell.com.br](http://www.electrocell.com.br) or see the extended company profile at [www.new-ventures.org](http://www.new-ventures.org).

*Written by Derek Newberry, World Resources Institute ©2007 – The Rising Ventures Series features articles, announcements and profiles of investors and entrepreneurs related to the theme of innovative small and medium businesses (SMEs) in emerging markets that deliver social and/or environmental benefits. These business models have been identified through the New Ventures ([www.new-ventures.org](http://www.new-ventures.org)) and Development through Enterprise ([www.nextbillion.net](http://www.nextbillion.net)) projects. To view other Features in the Series, visit <http://www.new-ventures.org/risingventures>.*