

XOGEN - TAP WATER AS FUEL?

I first heard about Xogen (pronounced "ex-o-jen") Power Inc. of Calgary from a co-worker to whom I had been bragging about my stock market profits from a hydrogen fuel cell company. He referred me to Xogen's web site at "www.xogen.com". It begins credibly enough with a greetings from premier Ralph Klein. But the claims following this seem fantastic.

Xogen say they have invented a device for extracting hydrogen gas by passing a pulsed current through ordinary tap water. That in itself is nothing special - electrolysis (although Xogen avoids referring to their invention as such) has been around for centuries. But here's the zinger: Only a small amount of electricity is required, much less than the energy that can be extracted by burning the hydrogen!

Now this is remarkable, and if true might provide the world with an endless supply of cheap energy while producing almost no greenhouse gases or other pollutants. It would certainly rate as one of the great inventions of all time. Xogen's web site, however, seems oddly modest about its importance, referring mostly to powering cars and heating furnaces. They claim to have built prototypes for both applications, which also seems odd. Why not concentrate on perfecting the device itself? A convincing demonstration of its properties would have other companies fighting for the rights to develop applications.

Xogen's web site is irritatingly vague on why the device works. They say more about what it is not than what it is. No, you don't get more energy out than is put in. No, it doesn't violate the known laws of physics. No, it isn't cold fusion (well, who said it was?)

Although Xogen is a private company, it is 20% owned by Tathacus Resources Ltd (TTC on the Canadian Venture Exchange), a Calgary petroleum company. The decision to invest \$2 million in Xogen was approved by shareholder proxy this June, apparently with over 99% approval from the minority shareholders. It seems to have done Tathacus share prices some good: "Tathacus Stock Soars on Hydrogen Generation Hope", screamed a Reuters headline in September.

Tathacus's web site (www.tathacus.ca) discloses more information. On October 3rd, Xogen was awarded U.S. patent 6,126,794 for an apparatus for producing hydrogen gas. It describes a fairly simple device made from ordinary materials. But although the patent explains how the device is built, it doesn't explain why it works.

To find out I contacted Leigh Clarke, a spokesman for Xogen. He began by asking my background, and I answered mathematics and computer science. He approved of this, suggesting

my thinking wouldn't be constrained by the intellectual boxes by which so many engineers seem bound. Uh huh.

He went on to confirm that Xogen had indeed developed a new device for extracting hydrogen gas from water, and that the burning of the hydrogen generated far more energy than the electricity used by the device. Isn't this perpetual motion? Well no, for here's a critical point: Ordinary water must be used. Distilled water, like that which might be condensed from the exhaust of burning hydrogen, won't work. But what property does tap water possess that distilled water does not? Where, for heck sake, does the energy come from? This Mr. Clarke refused to say, although he hinted that it may be electrostatic. Despite the patent on their initial prototype, the secret remains with the company.

So, is Xogen on to something? With little from Xogen to confirm their remarkable claims, common sense must rule. Odds are they aren't. They may be outright frauds, they may be sincerely mistaken, or they may be trying to exploit some actual effect which is too minor to be of practical use. In fact it would be safe to dismiss Xogen completely if their people behaved like crackpots. The trouble is they don't - apart from the claims, Xogen and its spokesman appear sane and professional.

It will be interesting to see what happens next. Perhaps Xogen will rocket to international fame, only to collapse in a heap of lawsuits and criminal fraud charges, joining the rogue's gallery of Bre-X, Solv-Ex, and cold fusion. My guess is Xogen will achieve only minor recognition and then quietly fade away, citing insurmountable technical difficulties in implementing their secret, but (they persist) still valid, method.

Or, of course, they may solve the world's energy problems. I'm almost tempted to buy shares in Tathacus Resources, just in case...

Stewart Trickett , November, 2000



STEWART TRICKETT Stewart Trickett has a B.Sc in computer science from the University of British Columbia and a M.Math in applied mathematics from the University of Waterloo. He has developed geophysical processing software in Calgary since 1979. He is currently a senior research programmer with Kelman Technologies Inc., and has previously worked for Veritas Seismic Ltd. and Seismic Data Processors Ltd. Stewart's specialities include deconvolution, statics, noise attenuation, velocity analysis, graphics, and software engineering. He is a member of both the CSEG and SEG, and regularly co-authors presentations at their conventions. This is his second article for the Recorder.

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