Update August 2013 - Zenogen



Website: http://zenogen.com.au/

August Update

Dear Zenogen Family,

August was a busy month! Our main achievements have been:

- First meeting of the Board of Directors
- Great science in the laboratory
- Strong positive feedback from our customers

Avoiding "The Don"; and, when Don becomes the don.

Scrutinizing Zenogen's financial position threw up no red flags, and polishing our near-term action plan was relatively straight forward...

So, quite undramatically, the culmination of our board meeting wasn't the tense Trump-esque early termination face-off - as I had been imagining it for the *entire week* prior.

However, come next board meeting, still we all must answer to the don...

...That is, Donald "Vito Corleone" Bunnell, who was unanimously elected Chairman of Zenogen's board.

Don is a Sydney Angels member who, after an illustrious career at Enron Corporation and BHP Billiton, co-founded his own Hydrogen start-up called Synthesis Energy Systems (Nasdaq: SYMX) . His years of experience in this domain made him the right choice for us, and we're exceptionally proud that he agreed to take up the role of Chairman. (Needless to say, we made him an offer he couldn't refuse.)



Scientific Report Card

As written by Alex Metelerkamp, COO

Under Zenogen's scientific advisor, A/Prof Andrew Minett, our scientific activities are well under way at University of Sydney's Laboratory for Sustainable Technology. These experiments aim to independently reproduce the inventor *** * * *** s method by manufacturing the electrodes and characterising their electrochemical behaviour as a material.

In the below image, a sample of untreated graphite (black), and treated graphite (red) are cycled through the range of voltages shown on the horizontal axis. The vertical axis shows the treated graphite conducting 73% more current than the untreated sample. Electrical current is correlated with gas production volume, so this behaviour is highly desirable for electrolysis.



CA - CB

Figure 1: Untreated (Black) vs Treated (Red) Carbon Electrodes.

With this desirable behaviour established, the question of durability arises. Treatment degradation can be characterised by continually cycling the electrode over a number of hours, then comparing the first and last cycles. In the image below, the first cycle (black) is overlaid with the 1000th cycle (red). No significant degradation of the electrode occurs under normal electrochemical characterisation conditions. (Small bumps in first cycle are noise.)



Figure 2: 1st Cycle (Black) vs 1000th Cycle (Red) Treated Carbon Lifespan Testing.

Both of these results paint a positive picture of the treatment process, which gives graphite favourable characteristics for electrolysis. In the coming weeks, the electrodes will be installed into electrolysis cells and used to produce Hydrogen and Chlorine.

Stay tuned...

We've had some exceptionally exciting developments with our customers - so much so, that I'm off to visit them in Europe for a few weeks in September. Whilst I will refrain from reporting anything just yet, I will keep you posted!

NEXT UPDATE: Tuesday, September 24 2013: Customer Relationships