

17 Oct 2019

To whom it may concern

I specialise in insurance claims material damage investigation to determine the cause of damage. Prior to insurance I worked as a Police Officer in the UK working in uniformed duties and finally in the SID (Specialist Investigation Department). I also have an understanding of and interest in science and physics.

H2IL contracted me due to my logical basic science knowledge, which is required for a materials investigator, and investigative skills and credibility as a Loss Adjuster contracted by New Zealand's main stream insurance companies.

I visited H2 Innovation Lab to carry out an independent inspection of their self powering hydrogen energy equipment. While I was no longer than one hour on site I can confirm:

- The equipment was running uninterrupted over this time period.
- The white box gas generator was receiving power from the Horizon fuel cell.
- There was no additional external power to the white box gas generator.
- Bubbles of gas were appearing through a tube of water they call a bubbler. The gas connection and flow direction came from the gas generator, through the bubbler and into the fuel cell. I can only assume the gas is hydrogen since H2IL stated the fuel cell is hydrogen fuelled and can be confirmed by looking up the manufactures data sheet.
- There was no external power apart from a small power adapter required to run the fuel cell controlling equipment and fans. This circuit had no connection to the fuel cell output connections or gas generator. On occasions the technician plugged in a cooling fan attached to the gas generator output feed pipes to provide cooling.
- A bank of brightly lit spot lights were connected to the fuel cell output terminals.

I can confirm that the system (gas generator and fuel cell) was self powering and providing the power to the spot lights over the time that I was on site.

The only conclusion I can make is that the gas generator was producing much more gas energy than the input electricity energy factor. The conclusion is based on the fact that fuel cells inherently are around 50% efficient. Therefore a co-efficiency factor due to combination of energies had to be taking place within the gas generator.

Yours Sincerely



Andy Downer
Loss Adjuster

