

From: [Hanel](#)
To: [comments, EMP](#)
Subject: [EXTERNAL] Grid Backup in Chemical Form
Date: Tuesday, October 09, 2018 10:03:38 AM

Hello,

I have been following energy solutions for a decade. The most adequate way to store excess energy produced by sun and wind is in chemical form, not batteries which is what they will try to sell you. NJ has a very successful history and well established industries to handle chemicals, after all we brought plastics to the world markets. I am not proposing petro-chemicals that need combustion to release the stored energy, I am writing about hydrogen.

Hydrogen can be generated using electricity or extracted from petro-chemicals, today we mostly do the latter. With wind and solar guaranteed to at times produce more than we consume, we can seize those occasions to produce hydrogen. Today there is even a novel process that allows hydrogen to be stored and transported in low pressures when combined with ammonia.

Every legitimate automaker is making strides to bring fuel-cell based electric propulsion to heavy duty shipping, including partnerships with other companies like Newark's AnheiserBusch. Like I stated before we know how to distribute energy very well in chemical form, and the recharge infrastructure is already there in the pumps you see everywhere.

What's more is that in case of a black-outs, those "gas" stations can be contracted by companies like PSE&G to be a back-up grid-tied substation to serve a micro-grid. South Korea has already successfully launched a full scale hydrogen-based power plant that provides power to 135,000 households.

If we are to reach zero emissions by 2050 we should pursue a method of distribution of energy that makes it accessible to as many people as possible, in as many use cases as possible. I am in the planning stages of a start-up to design systems that will help New Jersey compete with California in terms of innovation by bringing to market solutions like this one. With this information that is not in the public's mind yet, I hope I've given you a new path towards a workable and economic master plan.

Best Regards,
Hanel Acevedo
908-327-3380