

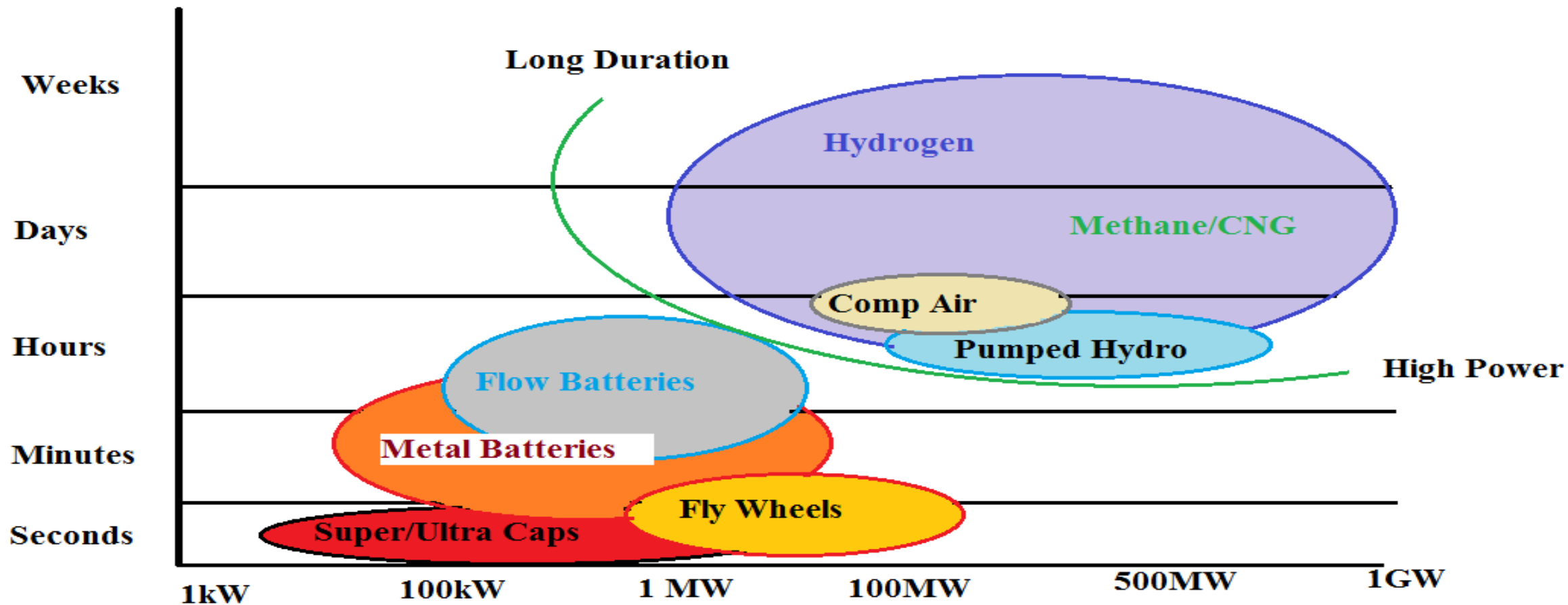


Hawaii

100% Clean
Energy by
2045

The answer to so many questions is
Hydrogen, and the answer is all
around us!

In Grid Applications, High Power Requirements and/or Long Duration Drives Energy Storage Choices!!!



How do you “make” Hydrogen?

Hydrogen is the most abundant natural element **IN THE UNIVERSE** but it's almost always attached to other atoms!!!

Extract hydrogen from other fuels with steam (cheap/dirty)

Split water molecules using DC electricity (very clean, also produces pure oxygen) If you have surplus electricity, or inexpensive electricity (geothermal?) it is cost effective

When you put Hydrogen and air into a fuel cell, you get heat, electricity and WATER, (NO CARBON, and twice as efficient as internal combustion engines)



Why is Hydrogen the answer?

Hawaii has PLENTY of clean, renewable energy, but we need transportable energy storage systems

Stored Hydrogen can turn our abundant renewable Energy into “baseload electricity” for our grids, and fuel for transportation sectors

Hydrogen is abundant, safe, clean, transportable, affordable energy storage, that can be used state wide and eliminate our importing of oil/gas for generating electricity and fueling our ground and marine transportation as well



Liquid or Solid Hydrogen Storage

Electrolysis from inexpensive geothermal power could be stored as compressed gas, a liquid, or even a solid

Ideally we need to “export” Hydrogen to Oahu for baseload Power and Transportation

Hydrogen, when produced at scale, is cost effective

There are already plans for a “Space Port” in the Big Island Rocket fuels include liquid hydrogen for safety and power reasons, so we could make the fuel where it’s needed

The State and Big Island could use the economic boost

Don't make Empty Promises

Jobs – Yes there will be jobs, good paying career jobs


Economy – The impact of Hawaii going from an “energy importing” to and “energy exporting” economy cannot be overstated!

Community “Buy-in” is Vital and a Challenge – We can't let outside interest or local greed ruin the greater good!

This project needs to be safe – There is risk in everything, but safe methods are available and need to be planned

Sustainable, Clean and Good for Everyone, or Not at All!

Let's Plan this project right and execute the plan faithfully



Combining intermittent renewables and firm baseload power from across the state, redesigning our grids for survivability and sustainability, and decarbonizing the transportation sector are ambitious, but attainable.

We can't let century old systems and corporate profits cripple our economy for decades to come and pollute our air and water

We can't afford to burn and waste

We need to make a clean sustainable Hawaii our future, and we need to set an example for the world today

Five hundred years ago these islands were self sufficient and sustainable. That should be Hawaii's reality and her legacy!



The Answer is
All Around Us

It's Hydrogen



Hawaii

100% Clean Energy by 2045

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