



## **Fact Sheet - Fuel Cells**

- FuelPositive's green ammonia can be used cost-efficiently for use in fuel cell technologies that have historically been hindered by storage and infrastructure issues.
- FuelPositive's green ammonia allows for increases in power and energy densities, charging speed, longevity, useful life and a lower cost per unit of energy stored.
- Current technologies commercialized as alternatives to fossil fuel transportation are battery electric and hydrogen fuel cell vehicles.
  - The creation of lithium-ion batteries causes serious emissions and pollution and the batteries have limited use-life and are not often properly recycled.
  - Hydrogen fuel cells have a number of problems:
    - The process used to make pure hydrogen is energy intensive.
    - · Storing hydrogen is difficult.
    - As a liquid it boils off at standard temperatures).
    - · As a gas, it requires extreme pressure to store.

- Transporting hydrogen is difficult and a safety concern/very dangerous (risk of explosion).
- Being the smallest element on the periodic table, hydrogen leaks into the crystalline structure of metals, making the metals brittle and susceptible to cracking and failure.
- In contrast, because FuelPositive's green ammonia contains a much more stable form of hydrogen, it provides the benefits of pure hydrogen but does not have the problems associated with pure hydrogen.
  - Green ammonia is not as energy intensive to produce, using FuelPositive's unique production system.
  - Green ammonia stores safely in tanks at normal temperatures with no boil-off problems and does not require extreme pressurization.
  - Green ammonia does not have the metal embrittlement problems of pure hydrogen.

Link to this section on our website.