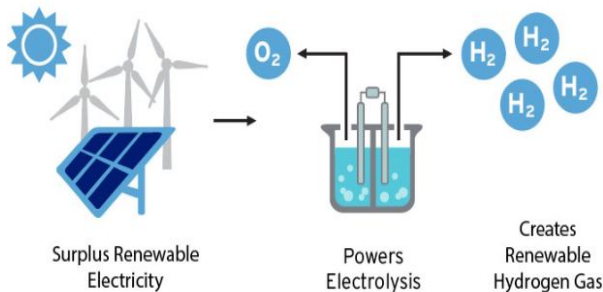


As California has pledged for net zero emissions by 2045, it has become increasingly important to find an alternative energy source to replace fossil fuels. Using hydrogen as a primary energy source along with renewable electricity can be a promising strategy that will help lead towards this goal. With an in depth analysis on the production, logistics, and applications of hydrogen, we developed an optimized strategy for the implementation of hydrogen in California.

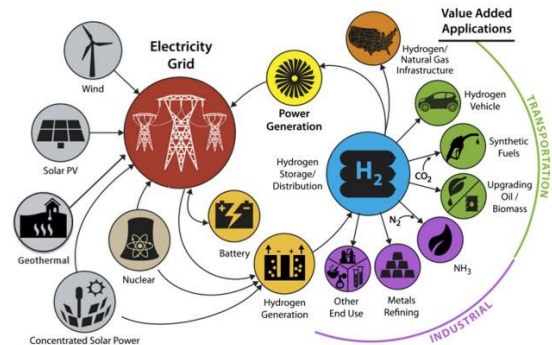
Renewable Hydrogen Production

Emission free hydrogen can be produced via a combination of renewable electricity source and electrolysis.



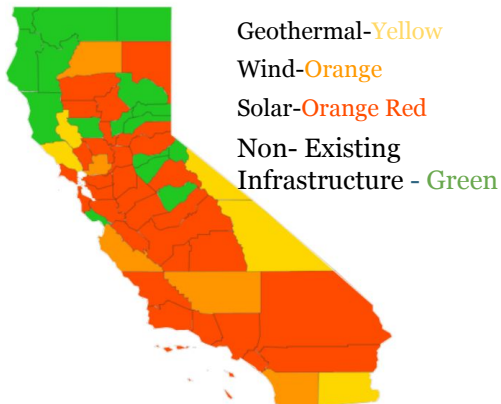
Supplying Energy For a Range of Applications

Hydrogen can provide energy for a wide range of applications and directly replace fossil fuels.

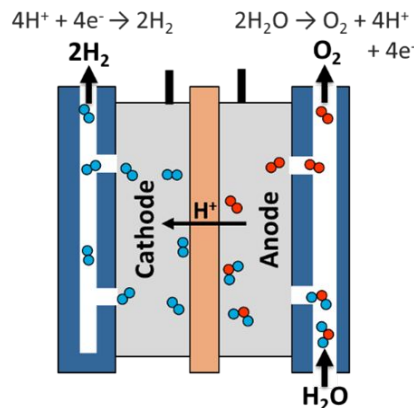


Our Optimized Strategy of Producing and Distributing Hydrogen

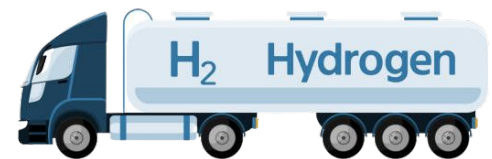
Optimal Mode for Each County



Hydrogen Production via Electrolysis



Regional Distribution via Trucks and Pipelines



The combination of using an optimal mode of electricity, electrolysis, and an optimized pipeline network can significantly reduce the cost of hydrogen, making it an affordable alternative to fossil fuels. Our optimized strategy will strategically place production site in counties with surplus or low cost electricity and distribute hydrogen via pipelines and trucks to nearby counties. With a network of hydrogen infrastructure that covers the entire area of California, hydrogen can become the next green fuel to reduce carbon emissions and achieve California's pledge of reaching net zero carbon emissions by 2045.