

Hydrogen Industry Primer

A Significant Enabler of the Energy Transition



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Hydrogen’s Role in the Global Energy Transition

We believe that hydrogen must play a meaningful role in any long-term scenario that contemplates a significant reduction in greenhouse gas (GHG) emissions. As a result, we believe that the emerging hydrogen industry will be a relevant investment theme for the foreseeable future.

In this section, we explore:

- What is hydrogen?
- Why is it relevant to energy transition?
- What are the hydrogen production pathways?
- What are the hydrogen addressable markets?

“Given the increased relevance of the hydrogen industry, we believe that investors should have a basic understanding of the different types of technologies employed in the broader hydrogen ecosystem.”

Other Key Areas Explored



2050 Hydrogen Outlook

Based on the best available science, a net-zero scenario must take place around 2050 to limit global warming to 1.5°C above pre-industrial levels. We summarize three widely available macro forecasts that contemplate hydrogen demand out to 2050.



Public and Private Sector Support Growing

A detailed look at the growing support based on COVID-19-related stimulus programs and other regulatory mechanisms, the formation of industry groups, industry investment and activity, net-zero pledges in the private sector and the rise in ESG investing overall.



Challenges to Overcome

All major energy transitions since the beginning of the industrial revolution took 50 to 75 years to become the dominant part of the energy mix. We identify the major obstacles that the industry needs to overcome.



Hydrogen in Canada

As a top 10 global producer of hydrogen, and given our existing energy infrastructure, we explore in detail why Canada has the potential to be an incredibly relevant participant in the global hydrogen industry.



Technology Overview

We provide a simplified overview of fuel cell, electrolyzer, steam methane reforming, and carbon capture technology.

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