



# **Green Hydrogen & Derivatives - Opportunities & Challenges.**



# India's Leading Renewable EPC & IPP Company

Prozeal Green Energy began its journey in 2013 with a clear vision to deliver clean, reliable, and future-ready energy solutions. Starting with rooftop and ground-mounted solar projects, we earned clients' trust across industries, steadily expanding our capabilities.

Today, we have evolved into a 360° renewable energy solutions provider, offering expertise across Solar, Wind, Solar-Wind Hybrid, Battery Energy Storage Systems (BESS), Green Hydrogen & Ammonia. We have achieved significant milestones, transforming energy landscapes in India and executing international projects, demonstrating our ability to deliver at scale across geographies.

Today, Prozeal Green Energy stands as a trusted partner for industries, utilities, and governments, committed to not just building projects but powering a sustainable and resilient energy future.





# Our Impact at a Glance



**5+ Clean Energy Solutions**  
Pioneering Solar, Wind, BESS, Green Hydrogen & Ammonia solutions.



**2.3+ GW Installed**  
Revolutionizing energy with vast renewable projects.



**1+ GWp Under Construction**  
Expanding our footprint with cutting-edge projects.



**300+ MW IPP Projects**  
Powering large-scale clean energy infrastructure across India.



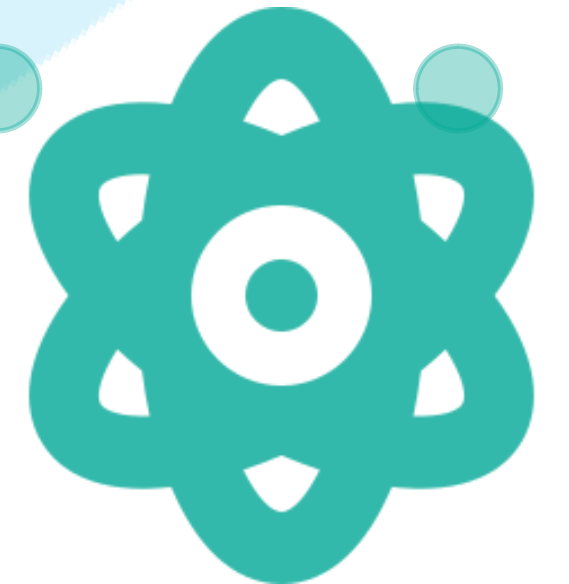
**22 States in India Transformed**  
Leading sustainable change across the nation and beyond.

GREEN HYDROGEN SERIES

# Decarbonisation Alternatives

## Beyond Electrification - The Case for Green Hydrogen

The conventional energy transition focuses on electrification — yet not everything can be electrified. Green Hydrogen bridges the gap as a critical decarbonisation agent for the hardest sectors to abate.





# Opportunities

Green Hydrogen can decarbonise major polluter industries that form the backbone of our heavy economy.



## Steel Manufacturing

Green H<sub>2</sub> replaces coking coal as a reducing agent, eliminating CO<sub>2</sub> at the point of iron ore reduction.

**~7%**

of Global CO<sub>2</sub> emissions



## Refinery

Green H<sub>2</sub> can directly replace the Grey H<sub>2</sub> being used in Refineries..

**~5%**

of Global CO<sub>2</sub> emissions



## Fertilisers & Chemicals

Ammonia, methanol and fertiliser production shift from grey to green feedstock, slashing Scope 1 emissions.

**~5%**

Of Global CO<sub>2</sub> emissions



# Ecosystem Challenges

Despite immense potential, significant developmental hurdles must be overcome to scale Green Hydrogen.



## High Capital & Power Costs

Hydrogen production process is highly capital-intensive, driving up unit costs. The substantial renewable power requirement further compounds the overall cost of green hydrogen at the gate.



## Infrastructure Gap

A mature hydrogen distribution and storage network does not yet exist. Without seamless pipelines and terminal infrastructure, hydrogen cannot flow efficiently from generation plants to industrial consumers.



## Policy Framework

High costs demand supportive policy incentives to drive industrial adoption. The current absence of adequate regulations, mandates, and subsidy structures leaves buyers with insufficient incentive to switch.



# Why Gujarat Can Lead the India Story?

## Gujarat Green Hydrogen Policy

Gujarat's Green Hydrogen Policy - Fueling a Bottom-Up Revolution.

- Designed around the DNA of Gujarat's industrial fabric
- Prime focus on Small & Medium Enterprises (SMEs)
- Empowering grassroots industries to lead the green transition
- A policy built for the many, not just the few



### Dense Chemical Clusters

World-class chemical and petrochemical clusters at Dahej, Saykha, Ankleswar & Jhagadia deliver a ready, concentrated demand base.



### High Solar Insolation

Gujarat's renewable energy resource endowment provides cost-competitive power for electrolyser operations.



### Export Infrastructure

A long coastline and major port network make Gujarat the natural gateway for hydrogen derivative exports.



# Conclusion & Strategic Way Forward

Decisive, targeted actions to become a first-mover in India's emerging Green Hydrogen market.

01

## Accelerate Domestic Adoption

Increase the incentive for hydrogen end-users to ₹100/kg, creating the critical price signal to unlock large-scale industrial uptake.



02

## Focus on Key Chemical Clusters

Target concentrated demand centres at Dahej and Saykha, where co-located infrastructure maximises project viability.



03

## GPCL as Demand Aggregator

Position GPCL as a strategic aggregator of industrial demand, then competitively auction that aggregated demand to green hydrogen suppliers.





# Our Leadership



**Mr. Shobit Rai  
(Co-Founder &  
Managing Director)**

Mr. Shobit Rai has been instrumental in driving Prozeal Green Energy's mission to decarbonize India's energy landscape. With over 15 years of deep industry expertise, he has not only guided the company to install over 2 GW of solar power but also spearheaded its expansion into green hydrogen and EV infrastructure. His forward-thinking leadership has established Prozeal as a pioneer in sustainable energy solutions for commercial and industrial sectors.

Mr. Shobit is recognized as a thought leader in the clean energy space, consistently shaping industry conversations on the future of energy transition. His strategic insights and unwavering commitment to innovation have made him a key voice in transforming India's renewable energy ecosystem and advancing global decarbonization efforts.



**Mr. Manan Thakkar  
(Co-Founder &  
Managing Director)**

Mr. Manan Thakkar has been instrumental in driving the company's vision to reshape India's energy landscape. With over 15 years of experience in the renewable energy sector, Manan's leadership has enabled Prozeal to install over 2 GW of solar power, while also leading the company's expansion into green hydrogen and EV infrastructure.

His strategic foresight has positioned Prozeal as a key player in providing clean energy solutions for India's commercial and industrial sectors. Manan remains committed to helping businesses transition to sustainable energy models, making an enduring impact on both the environment and the economy.

# “Let’s Build Renewable Future Together”

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