



HYDROMATX SYNERGY DOCUMENT

High Quality Electrolyser Components

www.hydromatx.com



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Welcome Message

Welcome to Hydromatx, where we are dedicated to advancing the frontiers of the green hydrogen industry. As we stand on the brink of a renewable energy revolution, our mission is clear to innovate and drive down costs in the production of electrolyser components, making green hydrogen accessible and sustainable.

At Hydromatx, we are committed to building a robust infrastructure for the manufacturing of electrolyser components right here in India a nation poised to lead the global shift towards clean energy. Our vision is to establish a local yet globally competitive hub that leverages cutting-edge technology, skilled workforce, and strategic market insights to deliver unparalleled value.

We invite you to explore the possibilities of partnering with us as we pave the way for a greener future. Together, we can catalyze the adoption of green hydrogen, reduce carbon footprints, and achieve our collective goal of net-zero emissions. Thank you for considering Hydromatx as your partner in this transformative journey towards a sustainable and prosperous future.

- HydroMatx



03.

About Team



Krish Parwani

Founder

My name is Krish Parwani, and I'm based in Jaipur, Rajasthan. From a young age, I've been inspired by stories of entrepreneurs and industrialists — people who turned ideas into industries and left an impact on their country. That inspiration planted the seed for my own journey in business.

Over the years, I've developed a strong interest in financial markets and have been an active investor for the past five years. This journey not only sharpened my understanding of global trends but also helped me recognize the massive potential of clean energy — especially green hydrogen — as a solution to our growing energy demands.

What drives me today is the belief that business can be a force for national growth. I want to contribute to India's future by playing a meaningful role in the green hydrogen ecosystem — specifically by enabling affordable access to the components that power this technology. My goal is to be part of the supply chain that helps green energy take root and scale — both for the world and for the country I'm proud to call home.

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About Team



Hemlata Parwani

Investor

My name is Hemlata Parwani, and I am a businesswoman with a strong background in real estate colonizing. Over the past 3 years, I've successfully developed 10 residential and commercial colonies, rooted in a deep understanding of how traditional business works and how market demands evolve.

Through my journey, I've seen first-hand how infrastructure and energy go hand-in-hand in driving growth. As India advances toward a clean energy future, I believe the electrolyser component market presents a powerful opportunity one that I am deeply confident in.

I'm committed to contributing to this sector by supporting the development of a localized, reliable supply chain. I see this not just as a business opportunity, but as a way to play a part in India's green growth story.

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Company Overview

Since 2025

Headquarters - Jaipur, Rajasthan

Industry: Green Hydrogen / Electrolyzer Component Manufacturing

Focus Area

Gas Diffusion Layers (GDL)

Proton Exchange Membranes

Electrodes & Catalytic Coatings

Electrolyzer Stack Assembly (PEM, Alkaline in future phases)

Business Model

Strategic Joint Ventures with global IP holders

Export-oriented manufacturing

B2B component supply to electrolyzer OEMs

Current Stage

Pre-operational; business planning and international partnership development underway.

Vision: To become a trusted partner for affordable, high-quality electrolyzer components — Made in India for the world.



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About Us



"Hydromatx is a forward-looking clean-tech venture headquartered in Jaipur, Rajasthan, with a clear mission: to play a catalytic role in accelerating the green hydrogen economy through strategic manufacturing of electrolyzer components in India.

Founded with an entrepreneurial spirit and a deep awareness of global climate imperatives, Hydromatx is positioned at the intersection of India's industrial potential and the global demand for affordable electrolyzer technologies. We aim to bridge the gap between high-end electrochemical technology and scalable manufacturing by collaborating with global technology leaders and building a robust component supply chain right here in India.

Our philosophy is simple: enable innovation, reduce costs, and localize production, without compromising on performance or compliance. With a special focus on Gas Diffusion Layers (GDL), membranes, electrodes, and electrolyzer stacks, we aspire to be the go-to partner for both international companies seeking export manufacturing hubs and domestic OEMs needing localized sourcing options."

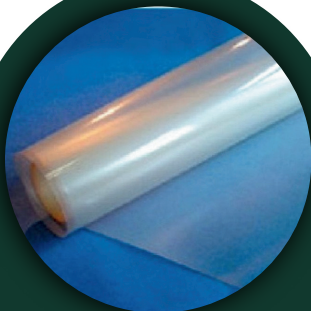


Industries we serve



**Gas Diffusion
Layers**

Electrodes



Membranes

Electrolysers



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Macro Market Analysis



Market Size & Growth Potential

- GDL: \$1.2B (2024) → \$2.5B (2033)
- Membranes: \$8.27B (2024) → \$14.21B (2032)
- Electrodes: \$1.58B (2024) → \$5.45B (2034)



CAGR

- GDL: 9.2%
- Membranes: 7.0%
- Electrodes: 13.18% (the fastest-growing segment)



Technological Maturity

All components are rated “High” — indicating strong industry readiness and commercial feasibility.

Macro Market Analysis



Global Competitiveness

Highly competitive across all segments, driven by clean energy demand in hydrogen production, mobility, and industrial sectors.



Return on Investment

High across the board due to expanding applications, policy support, and increasing demand for localized, sustainable solutions.



Policy & Industry Tailwinds

- India's PLI Scheme for electrolyser manufacturing: ₹4,440 crore (~\$530M).
- Growing export incentives (EPCG, FTAs, "Make in India").
- International demand supported by net-zero targets and green hydrogen roadmaps (EU, US, MENA).

Proposed Solution



Challenges

The Problem: What's Holding Green Hydrogen Back

- Rising Demand – Electrolysers needed across heavy industry, mobility, and energy storage.
- High Component Costs – GDLs, membranes, and electrodes make systems expensive.
- Import Dependency – Long lead times, inflated prices, and limited scalability.
- Adoption Bottlenecks – Green hydrogen remains costly and hard to deploy at scale.
- Lack of Local Manufacturing – Despite strong policies, India lacks component production capability.

Why Manufacture with Hydromatx in India?

- Skilled Workforce – Young, technically trained talent ready to scale.
- Modern Infrastructure – Evolving ports, logistics, and industrial zones.
- Policy Support – Backed by PLI schemes, Make in India, and state-level incentives.
- Cost Advantage – Lower labor and production costs for global competitiveness.
- Strategic Location – Trusted, stable, and globally aligned democratic economy.
- Massive Market + Export Potential – Access to 1.4B consumers and global trade routes.

Implementation Plan

Legal & JV Setup



- Company Registration – Establish entity as a Private Limited or LLP.
- Finalize JV Terms – Define roles, equity, and tech-sharing structure with partners.
- Open EEFC Account – Enable seamless foreign currency transactions for exports/imports.
- Obtain IEC from DGFT – Secure Importer Exporter Code to commence international trade.
- Sign MoU – Formalize the partnership agreement and mutual commitments.

Market Mapping

- Identify target export markets (EU, US, Middle East).
- Prepare roadmap for CE, UL, PED, and RoHS certifications.
- Begin B2B outreach to OEMs and distributors.



Facility Design

- Design facility layout with cleanroom zones (ISO 7/8).
- Implement digital product traceability systems.
- Plan for ISO 9001, ISO 14001, and ISO 45001 certifications.

Implementation Plan

Licensing & Imports



- Apply for EPCG scheme benefits to reduce import duties.
- Register RCMC with EEPC and CHEMEXCIL for export benefits.
- Obtain BIS and MNRE approvals for product compliance.
- Import capital equipment for component production.

Production & Validation

- Install manufacturing lines and run initial trial batches.
- Validate product quality through CE/UL certification processes.
- Prepare all required technical and MSDS documentation.



Export Logistics

- Partner with global logistics firms (DHL, Maersk, etc.).
- Develop standard export documentation templates (COO, Invoice, DG forms).



Implementation Plan

After-Sales & Scale-up

- Launch remote diagnostics and client support portal.
- Draft SOPs for warranty, returns, and technical queries.
- Plan roadmap for scale-up, R&D, and product diversification.



Performance

- Monitor KPIs such as export volumes and certification status.
- Collect client feedback and satisfaction metrics.
- Report ESG compliance and provide investor performance updates.\



Final Comments

- Partner with us to manufacture for the world.
- Together we can create the hydrogen economy.
- This is a long term play and trust is required.



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USP



Made-in-India Cost Advantage

- 40–60% lower production costs compared to EU/US.
- Benefits from India's skilled labor, raw material access, and industrial zones.
- Enables globally competitive pricing without sacrificing quality.



Globally Certified from Day One

- CE, UL, RoHS, PED, and MNRE-compliant products.
- Export-ready components designed for regulated markets (EU, US, etc.).
- Faster time-to-market for OEMs and partners.



First-Mover Advantage

- Few domestic players in electrolyser component manufacturing.
- Backed by National Green Hydrogen Mission and PLI schemes.
- Early leadership in a rapidly expanding Indian clean energy sector.

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USP



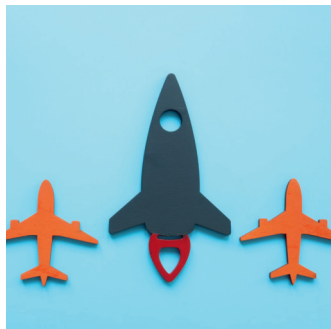
IP-Backed Technology Transfer

- No reverse engineering — we work with licensed proprietary tech.
- Ensures legal compliance and high-quality standards.
- Builds long-term, trust-based global partnerships.



Plug-and-Play OEM Support

- Customizable form factors and low MOQs.
- Stack-ready integration with global electrolyser systems.
- Flexible manufacturing to meet partner-specific requirements.



Geopolitical Advantage

- India offers a stable, neutral, and globally trusted export base.
- Supported by bilateral trade agreements and democratic governance.
- Ideal for partners seeking low-risk, scalable manufacturing alternatives.

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Risk Mitigation



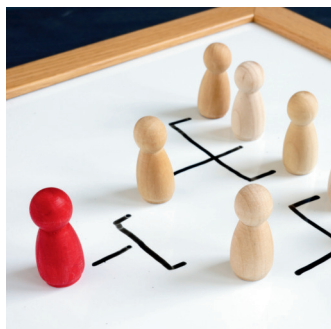
Technology Validation Before Scale

We will initiate pilot production and quality benchmarking (CE/UL) before scaling up, ensuring all components meet global performance standards and minimize tech risk.



Diversified Market Approach

By targeting both domestic and export markets (EU, US, MENA), and multiple end-use sectors (fuel cells, hydrogen mobility, ammonia), we reduce dependency on any single segment.



Structured JV with IP Holders

Our collaboration model is built on clear JV terms with IP-backed partners — ensuring legal clarity, tech reliability, and shared accountability from the start.

Financial

5-Year Financial Projection

Year	CapEx	OpEx	Revenue (GDL)	Revenue (Membranes)	Revenue (Electrodes)	Total Revenue	Gross Profit (60%)	Net Profit (15%)	Partner ROI (Cumulative)
Y1	₹2.0	₹0.5	₹0	₹0	₹0	₹0	₹0	₹0	₹0
Y2	₹0.5	₹1.2	₹0.5	₹0.7	₹0.3	₹1.5	₹0.90	₹0.23	₹0.23
Y3	₹0.25	₹1.5	₹0.9	₹1.3	₹0.8	₹3.0	₹1.80	₹0.45	₹0.68
Y4	₹0.15	₹1.7	₹1.5	₹2.0	₹1.2	₹4.7	₹2.82	₹0.71	₹1.39
Y5	₹0.10	₹2.0	₹2.3	₹2.9	₹1.8	₹7.0	₹4.20	₹1.05	₹2.44

Revenue Modeling by Production

Component	2024 Market Size (USD)	Target Export Share (Year 5)	Revenue Assumption (Year 5)
GDL	\$1.2 Billion	0.05%	~\$2.3 crore
Membranes	\$8.27 Billion	0.03%	~\$2.9 crore
Electrodes	\$1.58 Billion	0.10%	~\$1.8 crore

Financial

Justification for Investment in India

Parameter	India Advantage
Setup Cost	35–45% lower than EU/US/China
Workforce	Technically skilled, lower labor cost
Certifications	Facilities designed to meet CE/UL/ISO standards
Government Incentives	PLI + SIGHT Scheme (₹2,960/kW)
Raw Material Sourcing	Competitive access via CHEMEXCIL/EEPC
Regulatory Readiness	BIS, MNRE, and DGFT-compliant operations
Export Readiness	EXIM documentation, logistics with global players (DHL, Maersk)

Revenue Modeling by Production

Total Partner Investment: ₹4 crore (primarily CapEx)
Total Net Profit Over 5 Years: ₹2.44 crore (without subsidy)
Payback Period: Just over 4 years
IRR (Estimated): 18–20%
Upside Potential: Significant with policy support, EU demand, and clean energy targets

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Contact Information

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