

VOC PORT

Green Hydrogen Demonstration Plant – VOC Port, Tamil Nadu

GH2 Solar has successfully commissioned a fully integrated Green Hydrogen Demonstration Plant at V.O. Chidambaranar Port Authority (VOCPA), Tuticorin, Tamil Nadu. This landmark project features end-to-end hydrogen infrastructure — electrolyzer, hydrogen storage, and fuel cell-based power generation — developed and executed entirely in-house as a turnkey solution.

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Project Objectives

The pilot project was initiated by VOCPA to:

- Evaluate Technical & Operational Feasibility: Understand the challenges of deploying a hydrogen-based energy system in real-world conditions.



- Enable Skill & Knowledge Development: Serve as a live learning platform for researchers, startups, students, and industry professionals.
- Demonstrate Sustainable Use-Cases: Use green hydrogen to power port street lighting at night —

System Specifications



Electrolyzer Capacity:

10 Nm³/hr

Maritime Transport



Hydrogen Storage:

8 kg @ 30 bar



Fuel Cell Output:

10 kW

Turnkey Execution by GH2 Solar

From concept to commissioning, the project was led by GH2 Solar's in-house engineering and project execution team, showcasing our capability to deliver integrated hydrogen systems under one roof.

This fully operational setup combines:

- Advanced Electrolyzer Technology for green hydrogen production
- Hydrogen Storage Systems for intermediate holding
- Fuel Cell Technology for clean power generation

Impact & Significance

This project is a testament to what India's local talent and innovation can achieve in building a scalable and sustainable hydrogen ecosystem.



marks a significant step toward:



- Reducing carbon emissions in port infrastructure
- Enabling technology adoption across industrial clusters
- Accelerating India's journey toward green energy independence

A Collective Achievement

We extend our gratitude to the GH2 Solar team, project partners, and stakeholders who made this milestone possible.

This project reinforces our commitment to:

- Clean energy innovation
- Indigenous hydrogen technology development
- A greener, sustainable tomorrow

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Untap the potential of green Hydrogen and move towards net zero emission in the forthcoming years.

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