



High-Level Conference on New Technologies for Clean Energy Transition (Fourth Edition)

In Collaboration with



नवीन एवं
नवीकरणीय ऊर्जा मंत्रालय
MINISTRY OF
NEW AND
RENEWABLE ENERGY



GREEN HYDROGEN: POWERING THE FUTURE OF ENERGY TRANSITION

29 October 2025: 14:00 – 15:15 hours IST, New Delhi, India

Registration link: <https://registration.isaassembly.org>

The session aims to explore key opportunities and challenges in building the Green Hydrogen (GH) value chain, with a focus on unique regional contexts and needs especially in ISA member countries. The discussions will highlight the importance of promoting collaborative networks among various stakeholders, leading to increased innovation and sharing of best practices in the GH sector.

CONTEXT

As with most new technologies, green hydrogen has been through the ‘hype cycle’ with gigawatt announcements from major stakeholders just a few years ago. Today, there is evidence of a reset in this market. Public policy makers are reconsidering their positions. Developers and investors are on a global search to determine where the demand for GH will present the most promising results, and which technology is most suitable to the regional production context.

The current geopolitical and tariff landscapes have given new impetus to energy security and economic resilience, making energy sourcing a major factor in government considerations and policy actions. This new reality creates both challenges and opportunities for the green hydrogen sector.

Many governments are incentivizing production through policy and financial instruments. This in turn encourages the private sector to prioritize the regions which provide the most advantageous risk versus reward context. The emerging trajectory from all sides provides a unique window of opportunity for developing nations to reposition themselves as ideal regions for hydrogen hubs or ecosystems.

ISA is identifying factors which encourage green hydrogen production, demand and scale. Through data driven analysis, a framework of indicators for green hydrogen readiness and successful implementation has emerged. We invite the delegates to participate in an exchange of

experience and viewpoints from all stakeholders – public, private and facilitators – which will lead to more clarity and practical considerations to generate green hydrogen activity.

EXPECTED OUTCOME

The session will delve into the current global landscape of GH with focus on:

- Existing and emerging technological innovations related to electrolyzers, storage tanks, and transportation of GH
- Policy and regulatory frameworks and incentives that can accelerate GH ecosystem readiness; identify key economic factors that can drive down GH costs
- Understand the emerging demands and effective strategies to accelerate GH adoption
- Analyse existing and emerging business models for offtake of GH
- Approach for market creation and harmonization of global standards for domestic consumption and export

AGENDA

Time	Agenda Item	Speakers/Panellist
14:00 – 14:10	Context Setting	Dr. Mridula Bharadwaj, Programme Lead – Green Hydrogen, Solar E-Mobility and Storage, ISA
14:10 – 14:15	Keynote Address	FETA Geoffrey, Vice Chairperson, Committee of Environment and Natural Resources, Parliament of Uganda
14:15 - 15:05 Moderator Christopher Sorensen, Ecosystem Advisor, ISA	Panel Discussion	Abhay Bakre, Mission Director, National Green Hydrogen Mission, Ministry of New and Renewable Energy, Govt. of India
		Dr. Rasmus Alex Wendt, Energy Councillor, Denmark Embassy, New Delhi
		Jiwan Sharma Acharya, Principal Energy Specialist, ADB
		Mathieu Geze, Executive Director, APAC, HDF Energy
		Siddharth Gupta, Chief Executive, L&T Electrolysers Ltd.
		Dr. Rahul Walawalkar, President, Net Zero Energy Transition Association, NETRA
15:05 - 15:12	Audience Interaction	Santosh Gurunath, CEO and Co-Founder, Umanage Moderator
15:12 – 15:15	Closing remarks	Ms. Tharshinie Prassanth, Additional Secretary, Ministry of Energy, Democratic Socialist Republic of Sri Lanka

Annexure

Background

Green Hydrogen is a promising solution to decarbonise various hard to abate sectors, including transportation, refineries, fertilisers, and steel industry, etc. Although this emerging technology is gaining traction across industries, it faces certain challenges like high production and operational costs, underdeveloped infrastructure, absence of dedicated policy and standards, lack of knowledge, shortage of skilled manpower and limited access to affordable financing. Recognizing the pivotal role of GH in achieving global climate goals, ISA launched a programme on '[Solar for Green Hydrogen](#)' in its Fourth Assembly held in October 2021. The objective of this programme is to accelerate GH production, utilization, and trade in ISA Member Countries.

Under Phase 1 of this [programme](#), the ISA in partnership with Asian Development Bank (ADB), developed a report on GH ecosystem readiness assessment across a few shortlisted ISA member countries. In this report – '[Blueprint for Ecosystem Readiness Assessment for Green Hydrogen](#)', a high-level roadmap for development of a hydrogen ecosystem in select ISA member countries is presented. The study provides a synopsis of methodology to assess ecosystem readiness in a country to adopt GH as an energy vector – based on the potential to produce and cost of production of GH, ability to consume GH, and the infrastructure needed to produce GH viably.

Similarly, ISA-European Investment Bank-African Union published a report on '[Africa Solar Hydrogen Project \(ASHyP\)](#)'. The study analysed investment opportunities focusing on three hubs: Western Africa (Mauritania, Morocco), Southern Africa (South Africa and Namibia), and Northern Africa (Egypt) with a roadmap of technical, economic, environmental and financial solutions to unlock commercial development. The reports were launched at COP27, 2022 in Egypt.

ISA, with ADB and New Energy and Industrial Technology Development Organization (NEDO), Japan, published '[A Roadmap for Developing and Scaling the Green Hydrogen Ecosystem](#)' to facilitate building GH value-chain, especially for hard-to-abate sectors. The roadmap outlines technological advancements in electrolyzers; Regulations, Codes and Standards for GH Production and Use including country deep dive analysis for Brazil, Chile, and India.

ISA in partnership with Ministry of New and Renewable Energy, Government of India, and ADB, under the G20 2023 India Presidency has created a virtual 'Green Hydrogen Innovation Centre' [\[GHIC\]](#). This Centre of Excellence will support the production, utilization, and trade of GH, besides providing a platform for knowledge sharing and building competency across the GH value chain. The GHIC provides opportunities to incubate [Start-Ups](#), provide certified training, and host Expert Working Groups to support the scale-up of the GH ecosystem in member countries. The GHIC platform was launched at the Energy Transitions Ministerial Meeting (ETMM), and subsequently, was included in the G20 Leaders' Summit Delhi Declaration 2023. Under the ISA - Denmark Partnership, a green hydrogen readiness assessment study has been conducted for four African countries (Egypt, Morocco, Namibia, and Ethiopia) that have strong developing trends and significant potential to become major GH hubs [\[Link\]](#).

The ISA and Green Hydrogen Organisation, Geneva organised the Green Hydrogen Policy Accelerator Training (GHPAT) Programme in 2024. The programme successfully conducted two training workshops that took place in Cairo and New Delhi, with 80 government representatives from 27 member countries, reflecting a global commitment to advancing the green hydrogen

sector. This training aimed to enhance the skills and knowledge of government officials in the green hydrogen sector through comprehensive training and field trips. ISA has launched the training handbook titled '[Green Hydrogen Policy Accelerator Training Course](#)' at COP 29, 2024. The GHPAT workshops were preceded by a hydrogen safety training course conducted in partnership with Greenstat Norway, for South Asian member countries in Sri Lanka.

ISA, along with ADB, recently conducted a study '**Ecosystem Readiness Assessment for Production and Utilisation of Green Hydrogen**' for [ten countries](#). This included a Commercial Framework for the development of GH Hubs. It provides an overview of the global infrastructure readiness for GH production highlighting the importance of [green hydrogen hubs](#). Four specialised GH tools have been designed to assist countries in assessing [project risks](#), [evaluating readiness](#), [estimating costs](#), and [hydrogen carbon accounting](#). These tools are available on GHIC portal. A [stakeholder consultation workshop](#) was conducted as part of the study with the identified ten countries - Nepal, Bhutan, Sri Lanka, Fiji, Papua New Guinea, Ghana, Tunisia, Peru, Argentina, and Trinidad and Tobago.

ISA Green Hydrogen Publication Links

1. [Blueprint for Ecosystem Readiness Assessment for Green Hydrogen](#)
2. [Africa Solar Hydrogen Project \(ASHyP\)](#)
3. [A Roadmap for Developing and Scaling the Green Hydrogen Ecosystem](#)
4. [ISA-INAEE Green Hydrogen Report for India](#)
5. [Green Hydrogen Innovation Centre](#)
6. [Readiness Assessment of Green Hydrogen in African Countries](#)
7. [Green Hydrogen Policy Accelerator Training Handbook](#)
8. [Ecosystem Readiness Assessment for Production and Utilisation of Green Hydrogen](#)
9. [Global Green Hydrogen Startup Challenge](#)