



Press release

15 November 2022

Green hydrogen at the heart of Energy Observer's stopover in India

Energy Observer has dropped anchor in Kochi for the 75th stopover of its round-the-world Odyssey, after a tour of South-East Asia which took the laboratory vessel to Singapore together with its exhibition village, then Vietnam, Thailand and finally to Malaysia.

The first vessel powered by renewable energy and hydrogen, the first French ambassador for the 17 Sustainable Development Goals set by the United Nations, arrived on November 14th in Kochi, Kerala, after 17 days of sailing and 1,645 nautical miles travelled from Langkawi, Malaysia.



© Energy Observer Productions - Agathe Roullin

An event dedicated to green hydrogen

On the occasion of the vessel's stopover, the Energy Management Center (EMC), the state designated agency to enforce energy conservation act in Kerala, is organizing a special event: "Green hydrogen pathways to sustainable future". This forum will bring together many Indian institutions around the challenges of green hydrogen development.

Industrialists, academics, governmental agencies, and a large panel of actors involved in the energy transition will gather for Energy Observer's arrival during a 3-day workshop dedicated to the hydrogen value chain: production, transport, storage, maritime and land applications. Key challenges that are perfectly in line with Energy Observer's missions.

" Since the beginning of the round-the-world Odyssey in 2017, we have had the chance to immerse ourselves at the heart of energy issues and the transformation of the various major industrial players in the sector. Despite the inevitable inertia to change our energy model, I have witnessed a true will to accelerate this transition, whether it's public, political, or industrial. The strategies to become carbon neutral are becoming clearer and the associated technologies more mature. Nevertheless, obstacles persist. It is of key importance to accelerate our energy transition, time is running out and inertia is still too important! It is urgent to demonstrate the coherence of large pilot projects and to massively direct our investments towards low-carbon technologies to make them accessible to all.", **Victorien Erussard, captain and founder of Energy Observer.**

This stopover will also be an opportunity to welcome on board all the relevant players in energy transition including Energy Observer's partners. The Toyota group via its subsidiary Toyota Kirloskar Motor, leading the development of hydrogen mobility, CMA CGM, committed to the decarbonization of the maritime sector, and the Accor group, very active in the country, will be particularly involved. Local actors such as the Energy Management Center, the city of Kochi, the Kochi International Marina where the vessel will be moored, the CUSAT (Cochin University of Science and Technology) are also widely mobilized around the vessel's stopover.

"Energy Management Centre Kerala (EMC) is working towards attaining energy efficiency in all sectors of economy in the state of Kerala. We are convinced that green hydrogen plays an essential role in the decarbonization of our economy and the protection of the environment, as part of the latest amendment of the Energy Conservation Act adopted at national level. In this perspective, we are thrilled to support Energy Observer's stopover by organizing a 3-day workshop that will bring

together all the key players at the regional and federal level who are committed to the energy transition.” **Dr. R Harikumar, Director of Energy Management Centre (EMC), Department of Power, Government of Kerala.**



© Energy Observer Productions - Agathe Roullin

Hydrogen development at the core of energy transition

France and India announced in October 2022 the adoption of a joint roadmap for the development of green hydrogen, with the ambition to create synergies between the French and Indian ecosystems of the sector. This collaboration will take place on several levels, with the establishment of a regulatory framework for the entire low-carbon hydrogen value chain, certification methods, knowledge sharing, technologies and the acceleration of partnerships between the French and Indian energy industries.

A backdrop favorable to the meetings that will take place around the vessel's arrival, as attested by **Mrs. Lise Talbot Barré, Consul General of France in Pondicherry and Chennai.**

“It is a great honor to welcome for the first time Energy Observer here in Cochin, on Bolgatty Island. This stopover comes at a time when France and India are strengthening their cooperation to advance carbon neutrality and develop renewable energies.

Kerala’s green hydrogen mission has resulted in it being the first state to include hydrogen-powered mobility in its zero-emissions mobility policy. India plans to

achieve carbon neutrality and looks forward to a transportation system based on hydrogen fuel cells. France is investing heavily in this field, which opens up new opportunities for scientific and economic cooperation between our two countries. The transition to a low-carbon economy is a priority of the strategic partnership between France and India.

I am therefore very happy to introduce the laboratory ship of the ecological transition that is Energy Observer to our Indian friends from Kerala, this state of the Indian Union so close to the heart of the people of France. This stopover will allow us to reinforce the synergies between French and Indian actors in the fight against climate change. It will be a moment of exchange and learning open to a wide and varied audience: students, scientists, companies and administrations.”

The Ambassador of France to India, His Excellency Mr Emmanuel Lenain, said *“France is fully committed to helping India achieve its ambitious renewable energy goals. Energy Observer, fueled by sun, wind, marine currents and hydrogen technologies, is an impressive demonstration of the kind of innovative solutions France can offer to help make affordable clean energy accessible everywhere in India. Energy Observer’s port call in Kochi comes right after France and India adopted a Joint Roadmap on decarbonized hydrogen and illustrates the potential of Indo-French cooperation for a just energy transition.”*



© Energy Observer Productions - Mélanie De Groot Van Embden

India, a major force in the global energy equation

Energy consumption has more than doubled since 2000, pushed by a growing population and a period of rapid economic growth. The country will soon become the world's most populous country, adding the equivalent of a city the size of Los Angeles to its urban population each year. To meet such a growth in electricity demand over the next twenty years, India will need to add a power system of the size of the European Union to what it has now.

Today, 80% of India's energy demand is still met by coal, oil and solid biomass, but solar power is set for explosive growth, equaling coal's share in the power generation mix within two decades. This dramatic turnaround is driven by India's policy ambitions, notably the target to reach 450 GW of renewable capacity by 2030, and the extraordinary cost-competitiveness of solar, which will out-compete existing coal-fired power by 2030 even when paired with battery storage.

Indeed, the sun's excellent irradiation allows the production of photovoltaic energy at very competitive prices. With the decreasing levelized cost of energy from photovoltaic panels expected to reach USD 40 per MWh by 2040, the potential for hydrogen production through water electrolysis is immense and offers a real opportunity for India to become a major player in the sector.

By reaching 50% of renewable energies by 2030, India –currently the world's third biggest emitter of greenhouse gases- will cut its projected emissions by one billion tons.

The state of Kerala is actively contributing to this roadmap with many projects around clean mobility, energy autonomy and the potential of new sources of low-carbon energy that the audiovisual production team will largely document during the stopover.



© Energy Observer Productions - Agathe Roullin

Raising awareness among all audiences

Numerous conferences will be organized throughout the stopover, on board the vessel but also in a meeting with students, teachers and researchers from the University of CUSAT.

As part of Energy Observer Foundation's awareness and educational missions, school visits will also be organized on board with the crew members.

As the first French ambassador for the 17 Sustainable Development Goals, this circumnavigation of the globe also aims to explore all the solutions accelerating ecological transition and raise awareness among all the public audiences, decision-makers and manufacturers through inspirational and educational content (documentary films, web series, scientific articles and a travelling exhibition...).

UNESCO New Delhi, on the occasion of Energy Observer's stopover in India :

"UNESCO supports unbiased research into climate change issues. Currently, UNESCO is spearheading the production of a multilingual 'Climate Science Literacy' poster series, contributing to the understanding of and adaptation to climate change. We are currently living in an era of a climate-energy-paradox, characterized by large-scale greenhouse gas emissions while being acutely aware that these emissions are a major contributor to anthropogenic climate change.

Energy Observer sails the world powered by innovative technologies and clean energy. UNESCO encourages the crew to stop-over in UNESCO designated sites, and advocate for sustainable human living in harmony with nature. The sooner all of us jointly achieve producing and consuming clean energy only, the higher will be

our chances for human survivability."

Practical information

Kochi, India: from the 14th to the 24th of November 2022

**The boat can be viewed but cannot be visited by the general public*

To participate to the "Green Hydrogen Pathways to sustainable future" event:

From the 15th to the 17th of November

Bolgatty Event Centre, Cochin

To register: www.keralaenergy.gov.in

Please find the Video Press Release here

: <https://vimeo.com/771107389/a5321a237d>

About:

Energy Observer is the name of the first hydrogen-powered, zero-emission vessel to be self-sufficient in energy, advocating and serving as a laboratory for ecological transition. The development of reliable, sustainable, emission-free, and economically accessible energy solutions is at the heart of our odyssey and our industrial subsidiary EODev. We have been sailing around the world for 7 years, stopping in iconic cities to meet pioneers who devote their energy to the development of sustainable solutions that respect the planet.

As the first French ambassador for the 17 Sustainable Development Goals set by the UN, our mission - reinforced by our endowment fund Energy Observer Foundation - is to raise awareness of the ecological transition issues and explore solutions that prove that another energy future is possible.

Energy Observer has received the High Patronage of Mr. Emmanuel Macron, President of the French Republic. It has the official support of the Ministry of Ecological Transition, UNESCO, the European Union, Irena, and Ademe.

→ www.energy-observer.org

#EnergyObserver

Host partner



With the support of



Press Contacts

RIVACOM / Energy Observer ;

France / international :

> Fanny Régnier

+33 (0)6 76 20 61 14

media@energy-observer.org

PRESS AREA ACCESS

Medias to download



© Energy Observer Productions - Agathe Roullin



© Energy Observer Productions - Agathe Roullin

