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Energy Observer, the Laboratory Vessel Spearheading Energy Transition, stops in New York City in celebration of Earth Week



@Energy Observer Productions - Agathe Roullin

New York City, April 10, 2024 - [Energy Observer](#), the world's first self-sufficient, zero-emission laboratory vessel dedicated to testing technological solutions for low-carbon energy production, is docking in New York City from April 10 to April 22, 2024.

This strategic layover, which will coincide with Earth Day, marks one of the vessel's last international legs in "her" 7-year journey around the world before retiring at the end of 2024. The goal of the visit is to provide an opportunity to ignite action toward a greener, more sustainable, low-carbon future.

A pioneer in greener maritime transportation, Energy Observer was the first to integrate a mix of renewable energies with onboard hydrogen generation and storage. Energy Observer's visit to NYC presents a unique chance for her crew and onboard scientists to showcase to key stakeholders the innovative technological solutions that have been tested, deployed, and optimized - further highlighting the vessel's groundbreaking contributions to sustainable maritime practices.

Embodying the future of navigation, Energy Observer has also produced 13 films, 100 web series episodes of Solutions about SDG, and more than 400 YouTube shorts, as she crossed four oceans and visited over 40 countries, offering a behind-the-scenes look at the innovations and challenges of the energy transition. At a crucial time when the fight against climate change calls for ambitious action, **Energy Observer is positioned as a catalyst for progress and a model of inspiration.**

*"We are thrilled to share our vision and innovative solutions for the energy transition here in New York City, a place renowned for its iconic status and relentless pursuit of progress and innovation," says **Victorien Erussard, founder of Energy Observer.** "Earth Day serves as an extraordinary platform to not only engage with the American public, but also to connect with key decision-makers. We are excited for the opportunity to do it here in New York City with our partners, new and old."*

Events & Activities in New York City

During "her" stay at Battery Park City and presented at Brookfield Place New York, Energy Observer will offer a series of educational events catered toward adopting sustainable solutions to solve today's climate challenges, including guided tours of the ship (*by invitation only*).

Energy Observer will also participate in the **2024 Earth Day Festival in Union Square** on April 14, 2024, organized by the [Earth Day Initiative](#). Energy Observer will have a booth at the event, enabling us to meet the thousands of people expected to attend the festival, bringing together dozens of environmental nonprofits, climate campaigns, and sustainable businesses, as well as live entertainment and interactive displays.

Last, the **United Nations will recognize Energy Observer** through a symbolic ceremony in the presence of France's Permanent Representative to the UN on **Earth Day, April 22, 2024.**

During the ceremony, Energy Observer, a UN Sustainable Development Goals ambassador since 2018, will hand over the UN flag, which has been hoisted on board since the beginning of the vessel's journey, and the 100 episodes of the "[Solutions](#)" web series. "Solutions" was recorded throughout the vessel's odyssey and explores themes such as energy transition, solidary economy, the fight against poverty and the protection of biodiversity, and the struggle toward gender equality.

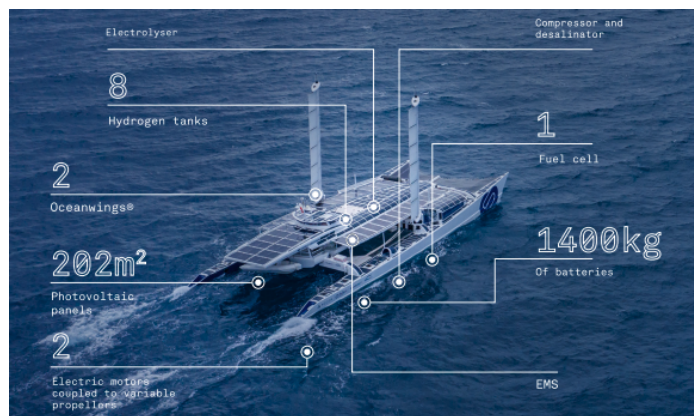


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Innovative Technologies Tested Onboard

A catalyst for innovation, the technologies developed and tested on board of Energy Observer not only demonstrate the feasibility and viability of sustainable energy alternatives, when applied to the maritime and transportation industries, but also show promises of practical industrial applications.

- **Wind** - Since 2019, Energy Observer has employed two first-of-its-kind automatic OceanWings, measuring 32 sqm and contributing to 30% of the vessel's propulsion. The wings allow the boat to reach 12 knots without impacting its electricity consumption. The success of this technology has led to its adoption by other vessels (e.g., the Canopée vessel chartered by Arianespace), **demonstrating its practical industrial applications for maritime actors**. Once the journey of Energy Observer is complete, the system will be today's **most promising and most accessible automatic wind turbine system**.



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- **Hydrogen** - The keystone of the Energy Observer system is hydrogen, which is **produced onboard by seawater electrolysis**. Currently, 62 kg of hydrogen is stored on board, providing 1 MWh of electricity and 1 MWh of heat. Since the start of her Odyssey, **Energy Observer has produced over 1.3 tons of hydrogen on board**.
 - **Desalination system** - Consisting of three successive stages of desalinators with excellent efficiency, the desalination system has gone through a substantial overhaul, but it's now capable of supplying the crew with fresh water and, above all, high-quality deionized water for the electrolyzer.
 - **Electrolyzer** - Based on a Proton Onsite system specially converted by Energy Observer's engineers, the onboard electrolyzer can produce up to **8 kg of green hydrogen per day** and more than 300 kg in 2023. Because of its electric consumption, electrolysis is done dockside, though it is possible to electrolyze whilst underway once the OceanWings provide enough thrust to keep the vessel moving.

- **Energy Storage** - Energy Observer has two means of energy storage - batteries for short-term storage, and hydrogen produced from seawater and stored in gaseous form (350 bars) on board for long-term storage. The whole system emits no CO2 or fine particles.
- **Fuel Cell** - The EODev marine hydrogen system designed around a Toyota fuel cell, which powers the onboard electrical production system, operates at a power of 70 kW, which is the best compromise in terms of performance. Designed ad-hoc to operate on a boat, the cooling system features a temperature exchanger able to withstand moisture and salinity. Toyota and EODev utilize Energy Observer to test and optimize the lifespan and reliability of this system and to predict maintenance for their other units in operation.
- **Solar** - 202 m2 of bifacial photovoltaic panels, which generate a peak power of 34 KWh, are installed on the vessel's side wings. Due to the strong exposure to elements, Energy Observer serves as a genuine test laboratory for maritime solar innovations in extreme situations, as the panels undergo constant optimization aboard. Innovations in terms of polymers, adhesives, and contactors have all been tested, and their performance is closely followed by monitoring software developed aboard the boat (Energy Management System).

Partner Quotes

“France's unwavering support for Energy Observer’s venture echoes our strong commitment to energy transition. Greenhouse gas emissions in France actually fell by 4.8% in 2023, twice as much as in 2022. For the first time, the decline is common to all sectors, including transportation.” - **Damien Laban, Acting Consul General of France in New York**

“We are pleased to support a vessel powered by renewable energies and clean hydrogen, showcasing the potential of Hydrogen's technologies for maritime and mobility markets. If widely adopted, these solutions can significantly contribute to achieving our decarbonization targets in both timing and scale. Our companies are actively involved in deploying technologies and equipment to facilitate the energy transition. John Cockerill is expanding its hydrogen footprint globally through a multi-local strategy, while Hy24 spearheads the development of large-scale hydrogen projects through its unique sustainable investment strategy. Together, we are part of a dynamic ecosystem comprising industrial and financial stakeholders who share a unified vision of hydrogen as a cornerstone of a low-carbon economy.” - **Hy24 and John Cockerill**

“We’re honored to welcome the Energy Observer to Battery Park City as part of our monthlong celebration of planet Earth. From environmental sustainability to coastal resiliency, we’re hard at work with a broad range of stakeholders helping lead the way to a greener future, and look forward to the lessons this incredible vessel has to share with us during her stay.” - **Raju Mann, President & CEO, Battery Park City Authority**

For more information about Energy Observer and her activities in NYC, please contact Michelle Alberini-Krapian at energyobserver@kalamari.agency or media@energy-observer.org

About Energy Observer

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 seven 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

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