



Communiqué de presse - Energy Observer in Morzine-Avoriaz: mobilizing positive energies in high mountains

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Energy Observer Foundation's exhibition village will, for the first time, be displayed in a unique environment: the commune of Morzine-Avoriaz, located at 1,800 meters of altitude in Haute-Savoie, for the event "Au sommet des énergies positives" (On top of positive energies) dedicated to the energy transition challenges in high mountains.

While our laboratory vessel is in the Indian Ocean for a several-week technical stopover, it is in a completely different setting that the pedagogical exhibition village will open its doors to the public from February 4 to 24 in the Avoriaz station, under the aegis of the Energy Observer endowment fund and in partnership with the municipality of Morzine-Avoriaz, the event's host partner.

In a context of crucial decarbonization and climate crisis, especially for the high mountains' most fragile ecosystems, the goal is to mobilize a large community of actors from the region and the hydrogen industry around concrete solutions for the energy transition while raising awareness of the preservation of this exceptional environment.

This event will highlight low-carbon energy mixes, mobility, and direct zero-emission engines, and good practices in terms of energy sobriety.



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Renewable energy's deployment potential

Mountains are home to blooming biodiversity on a planetary scale, providing habitat for 25% of the world's known ecosystems. Covering up to a quarter of the earth's total land surface, their temperatures have risen to 50% faster than the global average due to climate change. Alpine massifs have not been spared either: since the 19th century, average temperatures in the Alps have increased by 2°C, which is around double than global average. The impacts of climate change are already visible in a variety of areas, resulting in a more pronounced multi-annual variability in snowfall and a rapid thawing of snow cover.

The tourism industry is an economic and social driver in mountainous regions everywhere around the world. In most alpine regions, winter sports remain the principal tourist attraction. Hosting 36% of the world's ski resorts and 84% of the ski slopes, the Alps attract nearly 20 million skiers each year and generate an annual turnover of 40 billion Euros. In May 2021, France's Prime Minister presented the 'Avenir Montagnes' plan, which targets sustainable and resilient tourism through three key areas, including the acceleration of the ecological transition of mountain-based activities. Energy demand in ski resorts is rapidly increasing due to the consumption related to ski lifts, snow groomers, and artificial snowmaking systems (about 10% of the electrical consumption of Avoriaz station), which translates into the rise of costs concerning both energy and the environment.

With the government's energy sobriety plan presented on October 6, 2022, which also relates to the mountains, the key measures include tackling the speed of ski lifts and the production of artificial snow, as well as the decarbonization of snow grooming using electric-hydrogen hybrid vehicles.

In such a context, renewable energies' deployment in high mountains is a concrete response to the urgent need to reduce greenhouse gas emissions in the most fragile environments.

Solar, wind, hydroelectricity, and bio-energies: the mountain regions, which vary according to their topography or geographical location, offer real potential for clean energy production. They also enable the optimization of energy consumption using low-carbon mixes that draw on both the electricity grid and various sources of renewable energy.



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A pioneering region in the roll-out of hydrogen

The Energy Observer Foundation's educational exhibition will be reinforced by a set of direct zero-emission mobility solutions, engines, and applications geared towards the high mountains.

The aim is to provide a practical demonstration of the tools that make it possible to reduce the environmental impact of resort-based activities, at a time when around 75% of greenhouse gas emissions for ski slopes are linked to the use of diesel-powered snow grooming machines. Moreover, it's worth noting that half the carbon footprint of mountain-based activities is due to mobility and transport for getting to the stations in the first place.

Hydrogen is one of the most promising fuels for engines requiring a greater range (hydrogen-powered grooming machines and coaches), which makes it a credible alternative to fossil fuels. Equally, battery-powered electric vehicles more suited to light mobility such as snowmobiles testify to the complementary nature of these solutions.

The implementation of low-carbon solutions is very much in phase with the Auvergne Rhône Alpes region's roadmap, which revolves around the Zero Emission Valley initiative, Europe's most ambitious hydrogen ecosystem project comprising the simultaneous roll-out of hydrogen stations and vehicles. This program was born from the conjunction of several actors from the industrial and public sectors, wondering how to improve air quality and engage mobility's energy transition on future solutions.

Valuable energy on all levels

Unique in its pedestrian station concept, Avoriaz has been a pioneering resort in terms of ecology since its creation 57 years ago and continues to place sustainable development at the heart of its issues with numerous concrete advances: optimized management of snow grooming engines, sustainable constructions to enhance insulation and optimize energy consumption, collective and electric transport, a waste water recovery system and facilities for renewable energy solutions, etc.

The Flocon Vert label, which supports mountain resorts in the pursuit of more eco-responsible actions, testifies to this commitment to preserve an exceptional, yet fragile environment.

Adopting a holistic approach and implementing solutions promoting energy sobriety, greening, and production, the Morzine-Avoriaz municipality positions itself as a pioneer of the energy transition for the high mountains, leading the way towards sustainable solutions, which can be replicated and convey a positive message.

All energies are valuable, and the Energy Observer Foundation village will make it possible to develop pioneering initiatives and best practice solutions to safeguard, produce and optimize the use of these energies without impacting the environment.

A well-deserved technical stopover

On the other side of the planet, the vessel passed the symbolic 50,000 nautical mile mark (92,600 kilometers) before arriving in India last November. 2022 has been a trying one for all onboard systems, having endured hot temperatures, often murky waters, and weather less conducive to performance. The crew is now working hard to maintain, replace and optimize all the onboard components and equipment during usual or technical stopovers!



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Due to cyclonic weather conditions in the south of the Indian Ocean and the necessary maintenance work, the laboratory vessel is undergoing a technical stopover in the Seychelles archipelago.

The 2023 program will soon be shared and communicated.

Practical information for the 'Au sommet des énergies positives' (On top of positive energies) event

Open to the public from February 4 to 24

Opening hours: from 10:00 am to 6:00 pm local time

Venue: 430 Rte de l'Accueil, 74110 MORZINE AVORIAZ

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.

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Host partner

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