

Press release

April 2024

Event: first demonstration of the hydrogen ecosystem in mountain resorts.

**Tuesday 9 and Wednesday 10 April 2024.
From Moûtiers to Courchevel and Tignes.**

As part of the mobility plan for mountain regions, several resorts such as Courchevel and Tignes are looking into the feasibility of introducing hydrogen technology into their programs. The aim is to move forward with the decarbonization of public transport in towns and villages that support ski resorts.

To this end, the towns of Moûtiers, Courchevel and Tignes have decided to test the hydrogen ecosystem in their resorts.

In collaboration with HYmpulsion, Safra and the GEG Group, a demonstration of the hydrogen distribution solution is being organized in April, including a distribution station in Moûtiers, coupled with the presentation of Safra's HYCITY bus.

The aim of this demonstration is to highlight the comparative advantages of hydrogen motorization over other decarbonization solutions. HYmpulsion stations distribute renewable hydrogen, produced by water electrolysis. Fuel cell vehicles like the HYCITY emit only water vapor into the atmosphere.

About HYmpulsion

The result of a public-private partnership between the **Auvergne Rhône-Alpes** region, **ENGIE, Michelin, Crédit Agricole** and **Banque des Territoires**, **HYmpulsion** is the pioneer of renewable hydrogen mobility to drive connections between territories.

Through the construction and operation of more than **15 renewable hydrogen stations**, powered by a **2-Megawatt electrolyzer**, HYmpulsion is making a reality of environmentally-friendly, **high-performance and reliable mobility**.

The objectives are :

- **Weaving a network that interconnects territories,**
- **Facilitate the introduction of more than 1,000 hydrogen-powered vehicles, with the help of subsidies and partnerships.**

And so contribute to reducing emissions and achieving our climate objectives. Its role goes beyond simply building infrastructure. **HYmpulsion accompanies and supports organizations in their low-carbon transition.**

About Safra

Safra, a French company, is a historic player in the renovation of passenger transport equipment and a pioneer in hydrogen mobility. The company is aligning its strategy with environmental, societal and sovereignty issues, with the aim of becoming the leading gas pedal of the energy transition through the sustainable decarbonization of public transport in Europe. Safra offers solutions that perfectly meet the needs of transport authorities as they move towards the decarbonization of their fleets: the construction and marketing of hydrogen-powered buses, the retrofitting of diesel coaches with hydrogen, the renovation and heavy maintenance of passenger transport vehicles, and customer service.

About GEG



With its sights firmly set on the future, the GEG Group aims to be the benchmark energy provider in the Alps. Founded over 150 years ago in Grenoble, it is now present throughout France, covering the entire energy chain, from production to supply, distribution and lighting. Committed to sustainable development and the development of renewable energies, GEG offers local, sustainable, socially responsible and innovative energy to its customers in Grenoble and throughout France. GEG also stands out for its many commitments: the fight against fuel poverty, a policy in favor of access to employment, and impeccable service quality. Convinced that the local public energy company model is relevant to tomorrow's energy challenges, GEG is fully committed to driving the energy transition in Grenoble and the surrounding region. The group is fully committed to innovation and, through its partnership with the Régie électrique de Tignes, aims to develop a hydrogen ecosystem in the Haute Tarentaise region.

The program

Tuesday, April 9, 2024 - Moûtiers/Courchevel

- **2:30 pm:** Gathering at the HYmpulsion hydrogen filling station in Moûtiers
- **3pm:** Presentation of the HYmpulsion vehicle and station
- **3:30 pm:** Board the bus for a tour of downtown Moûtiers
- **4pm:** Departure for Courchevel
- **4:30 pm:** Arrival at Courchevel Town Hall
- **5pm:** Departure for Courchevel 1850
- **5:30 pm:** Departure for Moûtiers

Wednesday, April 10, 2024 - Les Brévières/Tignes (via Val Claret)

- **11:30 am:** Welcome and coffee at the parking lot outside Les Brévières village
- **12pm:** Bus departs from Les Brévières parking lot to Val Claret
- **12.20pm:** Arrival in Val Claret, words and photos. Then back down
- **12:30/45:** Stop at Tignespace for a cocktail lunch
- **1:30pm/14pm:** Return by bus to Les Brévières parking lot

Event summary

The event kicked off on Tuesday, April 9, at the Moûtiers hydrogen refill station. This station belongs to the Hymulsion network and is capable of dispensing 200kg of hydrogen per day.



Tank charging time was around 15 minutes for 30kg of hydrogen, confirming one of the advantages of hydrogen over existing battery-based decarbonization solutions.

The bus made two trips on April 9 and 1 trip on April 10, in very wintry conditions, with the mercury rarely exceeding 2° above 1500m altitude.

SAFRA's HYCITY bus perfectly fulfilled its mission of transporting passengers at altitude, even exceeding 2000m in Tignes - a first in the region. The bus covered almost 100km over the two days of the demonstration, accumulating over 2000m of positive altitude difference. Its range in the mountains is estimated at 350km. The bus consumed less than 7kg of hydrogen over the two days.

Passengers and local residents were able to appreciate this means of transport of the future, which emitted neither odour nor pollution, while offering the same functional features and passenger comfort as a conventional bus.

Further information

The HYCITY bus is powered by a 45 kW fuel cell that converts hydrogen into electricity. The continuous power output is 28 kW. The fuel cell is then used to power the electric motor that propels the vehicle.

When the bus starts moving, the fuel cell receives the hydrogen and starts injecting kilowatt-hours into the battery. As the bus descends, engine braking recharges the battery.

This technology is perfectly suited to the needs of mountain environments and their road characteristics. Inside the fuel cell, hydrogen is combined with oxygen from the air to produce water and electricity. The bus therefore emits only water, which means it produces no harmful air pollutants.

SAFRA is a very proactive French manufacturer in the development of hydrogen mobility. The bus's fuel cell is supplied by SYMBIO, based in Lyon.

Two cities in the region, Lyon and Clermont-Ferrand, have already placed orders for HYCITY buses.

This event demonstrates the commitment of our stakeholders to helping local authorities meet their decarbonization challenges in the urban transport sector. It also illustrates the relevance of hydrogen technology for mobility in mountainous environments.

We look forward to contributing to the development of this promising ecosystem!



Photo credits ©GEG



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