

Five more trial projects on hydrogen fuel technology given agreement-in-principle by Inter-departmental Working Group on Using Hydrogen as Fuel (with photo)

A spokesman for the Environment and Ecology Bureau (EEB) said that the Inter-departmental Working Group on Using Hydrogen as Fuel (Working Group) led by the EEB has given agreement-in-principle to five more applications of trial projects on hydrogen fuel technology at its meeting today (March 22).

The relevant projects involve:

1. an application submitted by Epro Advance Technology Limited, which involves the use of silicon to produce hydrogen for power generation set to provide electricity for a public housing construction site in Tung Chung;
2. an application submitted by Waihong Environmental Services Limited to try out two hydrogen fuel cell (HFC) refuse collection vehicles;
3. an application submitted by the Food and Environmental Hygiene Department (FEHD) to try out three HFC street washing vehicles on hire for street washing;
4. an application jointly submitted by China State Construction Engineering (Hong Kong) Limited and Hong Kong Nation-Synergy International Hydrogen Power Technology Co. Limited, which involves provision of electricity with hydrogen power generation equipment for the operation of electric machinery at a construction site in Sheung Shui; and
5. an application submitted by Veolia Hong Kong Holding Limited, which involves production of hydrogen by using landfill gas and installation of related hydrogen refuelling facilities at the South East New Territories Landfill Extension.

The spokesman for the EEB stated, "The Working Group has been following up the aforementioned five trial project applications, and promptly initiated the examination process upon receipt of detailed information of the trial projects. Following the applicants' enhancement on the designs and technical details to ensure that the trial projects can be carried out smoothly and safely, the Working Group has given agreement-in-principle to the five applications at its meeting today."

To date, the Working Group has examined and given agreement-in-principle in stages to a total of 14 valid applications of hydrogen energy trial projects (see attachment). Citybus Limited (Citybus)'s HFC double-deck bus

commenced daily passenger service in end February this year. Sinopec (Hong Kong) Limited's target is to put its hydrogen refuelling station into operation within this year. The FEHD can use the hydrogen refuelling station to replenish hydrogen fuel, hence it plans to launch the trial of its three HFC street washing vehicles in tandem with the operation of the station. The MTR Corporation Limited also plans to conduct the trial of a hydrogen fuelled light rail vehicle as a non-revenue train within this year.

The Working Group has been making reference to the result of consultancy studies to formulate interim standards for use by relevant trial projects, which include the safety guidelines for hydrogen fuel system on vehicles and hydrogen filling stations developed with reference to the Mainland and overseas regulations and standards, as well as the technical guidance note on quantitative risk assessment of hydrogen filling stations. The Working Group will continue to make reference to the operational data and experience collected from the trials. In addition, the relevant consultancy study on business environment impact assessment is also underway. All these help establish the relevant guidelines and legislative framework for the application of hydrogen in Hong Kong in the long term.

The spokesman said, "The Working Group has listened to the results of the consultancy study on the use of tunnels by HFC vehicles, including reference to relevant regulations in the Mainland and overseas countries, and has reviewed the design storage capacity, operating pressure and various safety devices of HFC vehicles. The Working Group shares the view that the risk of HFC vehicles using tunnels is comparable to that of liquefied petroleum gas vehicles and other fossil fuel vehicles. They can travel in tunnels if they comply with the relevant guidelines. However, vehicles conveying hydrogen (such as tube trailers), similar to other vehicles carrying dangerous goods, are not allowed to use tunnels. They can only use the sea route."

The Electrical and Mechanical Services Department (EMSD) conducted a trade consultation exercise from February 20 to March 19, 2024 to explain the study results to the relevant trades (including public transport operators and tunnel operators, etc.) and listen to their opinions.

The spokesman continued, "The EMSD reported the results of the trade consultation to the Working Group at the meeting. Stakeholders strongly conveyed positive feedback and supported the Government's proposal. The Working Group has also accepted the Code of Practice for Hydrogen Fuelled Vehicles and Maintenance Workshops, the Code of Practice for Hydrogen Filling Stations and the Guidance Note for Quantitative Risk Assessment Study for Hydrogen Installations, which were formulated by the EMSD after consultation with the trades."

As noted by the Working Group, the EMSD and the Transport Department (TD) will meet with Citybus and tunnel operators on March 25 this year to discuss practical matters pertinent to hydrogen buses passing through tunnels, such as operational procedures, mode of operation, supporting measures, as well as how to let staff and contractors master and get

conversant with the daily operations and contingency measures, etc., with a view to ensuring that appropriate arrangements are put in place to cater for HFC vehicles passing through tunnels in the future.

The spokesman supplemented, "as announced in the Chief Executive's 2023 Policy Address, we will formulate the Strategy of Hydrogen Development in Hong Kong (the Strategy) in the first half of 2024, and commence the preparatory work for legislative amendments pertinent to the production, storage, transportation and application of hydrogen energy, with a view to introducing an amendment bill into the Legislative Council in 2025. The Working Group has also discussed the preparation work and action timeline for the core strategies and actions pursuant to the announcement of the Strategy."

The EEB has set up a thematic webpage (cnsd.gov.hk/en/inter-departmental-working-group-on-using-hydrogen-as-fuel/) under the Carbon Neutrality and Sustainable Development website, in order to facilitate the public to acquire a better understanding of the work of the Hong Kong Special Administrative Region Government in promoting local hydrogen development. The aforementioned codes of practices and guidance note established by the EMSD are also available on the thematic webpage.

The Working Group is formed by the EEB, the Transport and Logistics Bureau, the Development Bureau, the Security Bureau, the Environmental Protection Department, the EMSD, the Fire Services Department, the TD, the Marine Department, the Planning Department, the Lands Department, the Buildings Department and the Architectural Services Department.

