Pandemic Accelerating Flow of Billions to Hydrogen: BNEF Q&A

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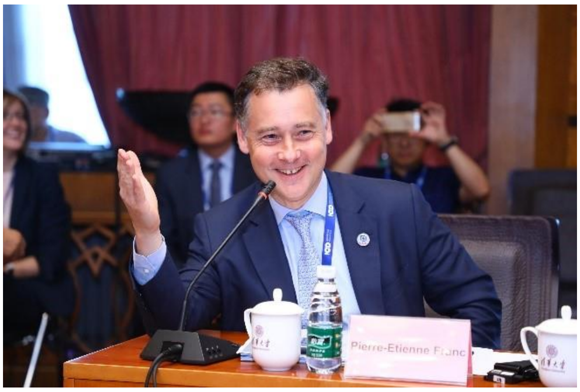
The Covid-19 pandemic has accelerated interest in hydrogen, as policy makers around the world rush to pour billions of green stimulus money into technologies able to help the transition to net-zero emissions.

So said Pierre-Etienne Franc, the head of FiveT Hydrogen Fund, a new vehicle seeking to raise 1 billion euros ($1.2 billion) for clean-hydrogen infrastructure projects, in an interview with BloombergNEF.

"Covid has focused everyone on the key topics needed for a useful recovery for society for the next decade, and hydrogen is clearly one of them," Franc said. "Does it mean the same push would not have appeared without Covid? I think it would have come but maybe it would have come a bit later."



Pierre-Etienne Franc, head of the FiveT Hydrogen Fund.

FiveT, which was unveiled in early April and described by its backers as a `pureplay' fund, will focus exclusively on projects designed to produce, store and distribute clean hydrogen. The fund plans to take a minority stake in the projects and will look at only those investments that are big enough to have an impact, Franc said. So far, the euro-denominated FiveT has received about 300 million euros in commitments from investors; it says it expects to meet its 1 billion-euro target by the end of the year.

Policy-maker support is key to spurring the flow of investment into hydrogen, said Franc, a former vice president of Paris-based Air Liquide SA's hydrogen energy activities and co-secretary of the Hydrogen Council. To have the most impact, he sees FiveT investing in projects of about 100 million euros in size, or bigger, adding that he expects double-digit returns.

"That means large electrolyzers, it can mean transportation pipes and it will also mean distribution downstream to transport industries — stations, networks of stations, and even in some cases maybe bundles of stations and trucks, fleets, buses to offer a comprehensive solution to operators," he said.

FiveT isn't alone in focusing its investment power solely on hydrogen. Earlier this month, a Chilean group said it's working on a $300 million fund to boost green hydrogen development. Fundacion Chile is raising money to invest in green-hydrogen projects that are two or three years out from being profitable. The fund plans to launch next year and aims to invest in 12 to 15 ventures, Chief Executive Officer Marcos Kulka told Bloomberg News in an interview on May 4.

FiveT's Franc, who spoke to BNEF in early May, said investments for his fund can be expected in countries already mobilizing around hydrogen – meaning places like western Europe, South Korea, Japan, China and the U.S. A transcript of the interview, edited for length and clarity, follows:

Q: Why a pureplay hydrogen fund now?

A: We think hydrogen has a role in the energy transition if it is clean and low-carbon. And we think that the most obvious long-term distribution will have it done using renewable sources of electricity, because that is the missing link between the abundant move into renewables and the need to use it in downstream sectors that are not easy to electrify.

The idea is that we need to help the sector to move to scale, and we think now is the time. The urgency to move is obvious. Policy support has never been as strong for hydrogen, especially since Europe has announced its strategy. But even the Biden plan is going to accelerate hydrogen. Asia is already strong. There is thus very strong momentum on the policy side. At the same time, for the last 10 years, I have seen the technology maturing significantly both upstream and downstream. Upstream, the cost of electrolyzers, the efficiency, the durability have improved. We're moving to scale projects where it becomes economically sustainable. Downstream we see the same.

All of the elements just need scale to make a difference and to be competitive. In order to have that scale work, you need to partner the financial community and the industrial community. The fund is there to make that bridge.

Q: But why call it pureplay?

A: The issue with hydrogen so far is that many funds have developed renewable strategies with a pocket for hydrogen. But the pocket is small, it's marginal, and it's usually the last one to be used. There's no player except the big startups that are pureplay only for hydrogen. We're creating a dedicated fund that is only going to invest in hydrogen, which means the funds raised will have to be working on hydrogen projects, and fast.

Q: Would this fund have happened if it hadn't been for Covid-19 and the resulting green stimulus spending?

A: I have been personally advocating for an infrastructure fund for the last three years. I started to get some traction with the industrial community a little bit before Covid but it was not yet there. What has triggered an acceleration is this Covid period, which has reshuffled the view of policy makers in terms of their view about climate change and the need to have useful recovery plans focusing on key matters for society, [including] the need to take into account the role of hydrogen. We worked out with the Hydrogen Council the narrative of why hydrogen is needed over the last four years and now there has been a convergence of elements that make it obvious.

Now that we have the narrative, we say that hydrogen is unavoidable for many sectors. We need a recovery plan, we need something massive and there's no other way. It's hydrogen. There's no other choice. Covid has focused everyone on the key topics needed for a useful recovery for society for the next decade, and hydrogen is clearly one of them. Does it mean the same push would not have appeared without Covid? I think it would have come but maybe it would have come a bit later.

Q: You plan to raise 1 billion euros. Where are you right now?

A: We have announced 300 million euros of intentions from different players. We're currently discussing with many others in the U.S., in Europe and in Asia. Most are industrial and finance players. We're also going to try to capture aggregated players that are willing to facilitate funds to move. We might even partner with other large funds that are willing to use our skills to develop a pureplay fund. We are confident that by the fall we should be very close to the number.

Q: What are the project criteria you look at when evaluating whether to make an investment?

A: Basically we're trying to put investments into projects that are contributing to fight climate change, so projects that are going to have a good ESG footprint. We're going to look at projects that at scale are significant enough that they can be economically viable and have a good return. We're not going to invest in projects where our stake would be lower than 20-30 million euros. As we will be a minority partner in most cases in greenfield projects, project size should be above 100 million euros at least. We're going to invest in assets, in SPVs (special purpose vehicles) that are going to be key producing or distributing assets of hydrogen. That means large electrolyzers, it can mean transportation pipes and it will also mean distribution downstream to transport industries — stations, networks of stations, and even in some cases maybe bundles of stations and trucks, fleets, buses to offer a comprehensive solution to operators. We're going to invest in projects where we expect in the end for the fund to see a double-digit return.

We're going to be very selective. We're going to invest in countries that have very significant policies in place, which means regulation and financial support schemes. So you're basically speaking about investing at scale into countries that have decided to put hydrogen at the core of their energy solution. That means Europe, Korea, Japan, China, it could be Australia and it's probably going to be the U.S., especially if the Biden plan proves to be positive for hydrogen.

Q: You said double-digit returns. Will investors be willing to accept lower returns because of the ESG [environmental, social and governance] benefits they'll get from investing in hydrogen?

A: Getting a double-digit return in the renewable space now is not so simple because projects are getting so commoditized and the competitive pressure is so great that the returns are relatively low. Being the first fund, and looking at large projects with the right policy support and the right partners, we should be able to get the best of the projects and deliver double-digit returns – which should be a very good deal in the current environment with such a low cost of capital. It's a mid- to long-term fund. Everyone knows that today it's not so easy to deliver a large-scale project with very solid returns in this new hydrogen space, but we are very confident that in the next 10 years it will be so because hydrogen will have become unavoidable.

A: BHP Group recently said hydrogen would play only a niche role in power and transport until the middle of the century because of cost and storage issues. Are they right?

A: I think people do not understand that the energy space is going to change. Tomorrow the new normal will be green hydrogen, and the value of green hydrogen will be different from the first few days of the industry. If it was possible to get a green energy system at the same price as fossil fuels, we would be there already. Of course it's going to be a little more costly. In 20 years, you will have a couple of segments or markets where you will not be able to use fossil fuels anymore so you'll have to go with what exists and you'll have no other choice but to use hydrogen. It's not only cost that's going to drive the transition. It's the fact that it's green.

Q: Is there any technology that the fund prefers in terms of how hydrogen is produced?

A: We are technology-agnostic. In the future we may envision a techno fund to support new tech that is needed. What we're going to focus on in terms of the upstream is electrolysis rather than steam methane reforming, because we believe it should be electrolysis. If hydrogen is produced using biomethane or steam methane reforming with a carbon capture solution, why not? This is not the focus of the fund but we are not against producing hydrogen using those tools. We'll be very careful to select projects with partners who have a good grasp of the technology so that we don't take too high a technology risk in the scale-up. That's going to be a primary element of the return because, if the capex is going up because of the technology, then you can blow out the return of the projects.

Q: How big will the fund get?

A: The fund size should be between 1 billion and 1.5 billion euros. If it works, many other funds will follow, but the first fund should not be bigger than that. With a fund of 1 billion euros, which is going to invest as a minority player with projects that have some capex support from policy makers plus some project finance, you in fact are looking at close to 10 billion euros of projects for possible investment. That's already a big chunk of the market space, which gives you a good connection to the right projects. If it's a bigger fund, then you might not have enough projects to choose from today.

Q: When will you announce the first investment?

A: We're working on things now but we need to officially start the fund. We expect the first closing by the end of the year so I think the first real investment commitment should be early next year.

To see BNEF's latest take on the hydrogen market please see *1H 2021 Hydrogen Market Outlook: A Defining Year Ahead* (web | terminal).

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