

KEYNOTE INTERVIEW

The early bird catches the worm



*Investing in new energy transition themes early can generate significant value over the long term, says chairman and co-chief investment officer of infrastructure at Goldman Sachs Asset Management, **Philippe Camu***

Q How important is the energy transition as an investment theme today?

The energy transition is the most significant pillar of our thesis for investing in infrastructure today. There has been a palpable sense of urgency surrounding the drive to net zero ever since COP21 in Paris. The trend is accentuated by the conflict in Ukraine and concerns around energy security and unsustainably high energy prices.

Meanwhile, the Inflation Reduction Act, which has been passed in the US, is accelerating decarbonisation efforts in North America, creating significant demand for infrastructure investments. All

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in all, I would say the energy transition is a multi-trillion-dollar opportunity for infrastructure investors.

Q How do you define the energy transition as an organisation, and what is your investment philosophy?

We define the energy transition as everything that helps achieve net zero, including renewable energy generation; the entire electric vehicle charging

chain; energy storage; sustainable fuels such as hydrogen and renewable gas; and finally, carbon capture.

We also believe that the energy transition extends to every single sub-sector of infrastructure, from transportation and utilities to digital infrastructure, social infrastructure services and logistics. It covers the decarbonisation of existing brownfield assets. The opportunity set is exceptionally large.

In terms of our investment philosophy, through specialisation we identify trends with strong tailwinds early on. We believe that by being first movers, we can create significant value for our stakeholders over the long term.

Q How has the energy transition evolved through the years and how has that been reflected in the investments you have made?

When we raised our first fund back in 2006, the energy transition was all about de-browning existing infrastructure businesses. For example, one of our first investments was in the UK's largest port company. We helped transform some of the flagship terminals that were handling fossil fuels into facilities with the required infrastructure to handle construction materials for the first offshore wind farms.

In 2010, we helped Spain transition from coal- and oil-generated power to the cleaner alternative of natural gas. That investment enabled one of the country's largest gas transmission and distribution companies to double its regulated asset base, over a five-year period.

A few years later we helped transform a large European utility company into a global offshore wind champion, supporting its exit from all legacy fossil fuel businesses and investing significantly to build offshore wind farms in the UK, Denmark and Germany. Not only was the scale of investment required substantial, but the operational transformation was extraordinary too. Today, that company is recognised as the world's largest pure-play offshore wind farm company.

Q Are there any deals of which you are particularly proud?

We made an investment in Japan following the Fukushima nuclear disaster, building a renewable developer covering onshore wind, solar and biomass from scratch. Japan was urgently shutting down its nuclear generation and looking to replace it with as much green energy as possible.

Our ability to move quickly and successfully required important insights into the political outlook, including the nuclear phase-out and the evolution



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of feed-in tariffs. Leveraging these insights, we built one of the largest alternative renewable power companies in Japan.

Q And where do you see the big opportunities going forward?

We believe the energy transition opportunity set today is as exciting as it has ever been. There is a vast need for investments in all forms of renewable generation, but also in transmission and distribution, storage and decarbonisation of hard-to-abate sectors. We are focused on all those areas. But if I were to pick three themes that are particularly interesting right now, I would start with the greening of transportation.

This is all about the transition from the internal combustion engine to EVs – both commercial and domestic. The transport sector is currently responsible for 22 percent of global CO₂ emissions, and EV penetration is expected to increase rapidly in order to reach net-zero objectives.

The EU is targeting 30 million EVs by 2030 and Ford alone has recently announced that it will invest upwards of \$50 billion to produce two million EVs in 2026. The numbers involved are really staggering, and the investments required to build the required EV charging infrastructure are huge.

Then there is energy storage. This is about bridging the gap between peak supply of renewable energy – when the wind blows and when the sun shines – with peak periods of demand. As renewable capacity grows, the need for storage to stabilise the power grid and reduce dependence on fossil fuel peak generation increases too.

The final investment theme that I would mention is hydrogen. Goldman Sachs Carbonomics research estimates that clean hydrogen has the potential to contribute up to 20 percent of global decarbonization. In 2019, there were 75 million tons of clean hydrogen produced and that figure is expected to rise to 520 tons by 2050. Massive investments will be required to make that happen.

Furthermore, the opportunity is not only about clean hydrogen production, but also about the transportation of the gas, and its use as a form of energy storage. This is why we are looking to develop one of the first green ammonia import terminals in Rotterdam, which will become an essential link in the hydrogen chain.

Q What risks do you focus on when assessing energy transition investments?

As an infrastructure investor, we prioritise protecting our downside and have to consider all the risks involved in our investments, of which I see many in energy transition. Investing to facilitate a transition often involves building

“Investing to facilitate a transition often involves building infrastructure that does not yet exist”

infrastructure that does not yet exist. We have done that with offshore and onshore wind, solar and biomass, and we are doing it today with energy storage and hydrogen. When developing these platforms, you need to underwrite market risk. What are the supply/demand dynamics likely to be? What will the adoption curve look like?

You also need to look at the construction costs, of course, because getting that wrong, particularly in an inflationary environment, can be very damaging. Those costs include labour, energy, raw materials and financing costs. Each is going up in the current macro environment.

Some of these can be offset through process improvement and better sourcing. But some cost increases are out of your control, so you need to be compensated. In the US, for example, the Inflation Reduction Act includes investment tax credits that will help mitigate rising prices. Governments are doing their bit, but you still need to be extremely prudent.

It is also important to ensure you are taking infrastructure risk and not technology risk. You need to make sure you are investing behind proven technologies and not technologies that could result in a negative outcome. Some energy transition investments can feel more like venture capital; the potential returns may be spectacular, but we require resiliency and defensive characteristics as infrastructure investors.

Finally, given the social importance of energy, political risk is also prevalent. You need to underwrite that very carefully, especially when relying on government support for newer technologies as policies can change. Meanwhile, big projects can be impacted by slow planning approval and interconnection queues, so political risk has to be factored in.

Q How would you describe the competitive dynamics in this space, and what does it take to succeed?

High levels of political incentivisation in Europe and North America are driving more and more capital into the energy transition sector. Significant investments are coming from the largest managers and we also see a lot of newly established firms moving into the space. But I would say that the mid-market is under-represented.

In this sector, it is not enough to simply provide capital – you need to provide expertise. The energy transition is highly interconnected across many subsectors and requires a deep understanding of each of those different subsectors.

The success of energy transition investments is built around the ability to scale-up platforms significantly by hiring high-quality management teams, by securing long-term contracts with strong counterparties or attractive feed-in tariffs, and by leveraging capital market expertise to finance growth at attractive terms.

It is critical to navigate complex geopolitical backdrops. Insights into the macroeconomic outlook were essential when we invested in Japan after Fukushima, in Spain during the global financial crisis and they are essential today in the US with the Inflation Reduction Act. Finally, you need deep operational capabilities in order to drive value.

Q What do you believe the future holds for the energy transition and, in particular, for the role of private markets within it?

Public capital alone cannot bridge the gap; it cannot provide all the investments needed to transition to a decarbonised world. The numbers involved are astounding. One of the latest statistics I saw claimed that \$56 trillion will be required to achieve net zero by 2050. The private sector can provide most of that capital. It can also provide the expertise needed to build the long-term foundations for a decarbonized future, which will benefit generations to come. ■