

XAVIER PLOQUIN

Investment Director and Chief of Staff to the CEO of Meridiam

Olivier Appert, Chairman of France Brevets, Scientific Advisor of the Centre for Energy and Climate of Ifri, Former President of the French Energy Council

Okay, I will leave the floor to Xavier Ploquin, who will give us his view on this issue of energy, environment and sustainable development, the point of view of the financial institutions. He is the Investment Director and Chief of Staff to the CEO of Meridiam, which is an investment company specializing in sustainable infrastructure. Seven minutes, no more.

Xavier Ploquin

Hello, everyone. I also have a presentation that is way too long. The good news is that I can pick and choose and I will actually talk just a little about financing because I have my advertising page about investment in battery gigafactories.

I have quite a long introduction that actually echoes, I think, a little, maybe in a biased way, the speech of my neighbor. I wanted to start with a focus on my view because Meridiam is a global infra fund developing long-term infrastructures. I also used to be Energy Advisor for the French Ministry of Energy and I had to plan energy in France, so I wanted to share a view that led, in the end, to the financing part but I will make it short.

I will try to just maybe share something about what I think is interesting about the European strategy for climate adaptation and mitigation, betting on resilience, adaptation and sovereignty. The two first words are words that you do not hear everywhere and, the third one, we used to not hear it but we hear it now.

The first point is that, in my view – and I agree with what you said – Europe is actually the part of the world that is benefitting the most from the energy transition. Why? I think everything has been stated and explained in the other presentations.

Europe imports massive amounts of oil, gas and coal – 93% of our oil, 89% of gas and 25% of coal – and it is not going to increase.

We are fully dependent on all the raw materials – lithium 100%, cobalt 81%, nickel, uranium. In addition to that, it is very concentrated.

The third point is that we have some manufacturing capacities and we have an important one in heat pumps, for instance. We are global leaders. We are still leaders in wind, although the position is challenged. We are tech leaders in H2, even though the production is starting to grow in China. We are the leader in nuclear, even though our industry has had some difficulties from which they are now recovering.

However, some important parts of the value chain are missing – battery manufacturing, as I said, we have invested so I hope it will change, and PV production, which is close to zero.

Let us not talk about food. I wanted to talk about it but I have cut the slides.

Maybe there are some elements that are important, but everything has been said already. The stated policy scenario from the International Energy Agency is that oil will stay at approximately 100 million barrels per day. This means it will remain a big commodity. It will remain something with price volatility and something that has an impact on our global balance.

However, what you can see on the right is that developed countries should reduce their consumption – and they are supposed to. Maybe we will grow other kinds of dependencies. We have not talked about hydrogen today, actually, because it is still something that is kind of science fiction. However, if you project over 30 years, the European Union is supposed to be completely different from the rest of the world, importing masses of hydrogen, according to the IEA. Will it happen? Will it not? Anyway, it is just a substitution from one dependency to another.

What is interesting is that, in Europe – this is about metal, but I think we have all understood that we are basically fully dependent, and that the dependency will grow. We will need to expand the importation of lithium 18 times before 2030, and 50 times by 2050 – so, huge amounts.

This is about PV, so I will also skip it.

I think we have seen nearly exactly the same chart, Olivier, but yours was about inflation. This one is about the share of the GDP that has been used for energy. What you can see is that we are exactly in the same situation as it was in the first two energy crises, which is very huge. What happened in Europe is that we have completely socialized this with a tariff shield that increased the debt in France, for instance, by 2.5 points. This means that this is something that has a huge impact on our capacity to develop in the future.

The consequence of the first part of my presentation was to state that – and I agree with you – when we think about energy transition, it is something that benefits Europe the most because we are, by far, the most dependent part of the world. Many parts are dependent on energy imports, but we have the largest share at the moment, I think.

What is interesting is that European countries could be considered rich enough to transition, and that is also the reason why they can push for that. However, the weight of the transition is actually weighing very much on households in Europe and they have trouble facing that.

This chart is just to mention that, if we want to target Net Zero and not stated policy, we have to find approximately EUR 1 trillion in advanced economies to invest, starting in the next three years. This is huge.

What is interesting is that, over the long-term, the total energy cost of a Net Zero scenario is supposed to be lower than something that is stated policy. However, the problem is that it requires massive investment. That is why, in the end, I was supposed to talk about investment funds.

What everyone should have in mind, because I think that, in these chambers, we do not talk about households, we do not talk about the people enough, a study has been done in France about the cost of house renovations or about electric vehicle acquisition. Once you take off the subsidies, how many years of salary will it cost to a household?

The households are, from left to right, from the first decile, meaning the 10% less rich and, on the right, the 10% more rich. What you can see is that, basically, a complete renovation of your household if you are in the 50% less rich people in France – in France, after subsidies that can go up to 70% of the cost – still will cost you approximately two years' salary. This is something which you cannot afford and the return on your investment is not enough or you need to have very long-term debt.

It is a bit better on electric vehicles, but what is important to understand is that European households, even though they are supposed to afford and to desire climate-mitigation, do not find the value today and, frankly, even though you think it is a religion, I think that most of the European households do not really care enough about climate mitigation to spend two, three, five years' salary to renovate their house if they are told that it is for climate reasons.

This is about hydrogen but that is a figure. Bad news: you could think that debt was a good way to upfront the CapEx and pay over time. However, this graph, I think, is one of the most insightful ones I have seen in years. Even though it is about hydrogen, it is why I have put that here.

In 2021, if the cost base for a hydrogen project was 100%, in 2023, it is 150%. Most of the increasing cost is the cost of capital. The cost of debt has exploded. Debt is less available, and it is the same for every part of the energy transition. Therefore, households that could finance their renovations by having 30 years' debt at 0% can no longer do it. This will have a huge impact on European households.

I will just use two slides and nearly not talk about financing. My conclusion about the European households is that the new green solutions are more costly than they are supposed to be because, even if they are less costly than fossil fuel solutions, they are not when compared to the fact that people are already equipped with existing fossil solutions. Therefore, they need to not only invest new CapEx but to write off the one that they previously had.

People know that and solutions that rely on carbon taxation, they do not have the right time pace because you change your car every 10 years, you renovate your house every 20 or 30 years, but you pay your bills every month. This is not an incentive that people are ready to accept.

Green solutions, even in Europe, are not perceived as good ones because sometimes they are too expensive. Sometimes it is more expensive and you have doubts about the fact that it works. There is a huge debate in France and in Germany about heat pumps. Do heat pumps really work when it is minus five degrees? This is really hard to target and it is not a geopolitical, high-level discussion but it is something that basically prevents people from buying heat pumps instead of a gas boiler.

Third, sometimes the solutions are expensive and they do not give the same service. Electric vehicles, for instance, do not have the same capacity as a regular gasoline car. Therefore, it is



very hard to convince people and they perceive that the value is outside. In Europe, they perceive that if they buy PV, they buy a Chinese product. If they buy EV, it is often Chinese, basically. They buy foreign products and that does not create jobs and it creates dependency.

Finally, as I said, the financing capacity is completely down at the moment because the debt is higher and inflation has struck. In Europe, people need most of their cash to buy expensive housing, expensive studies in some countries, so they do not have that much room for additional expenses.

I think that a good way of probably discussing energy transition, and it will also involve the southern countries, is to focus on resilience, adaptation and sovereignty. IPCC, for instance, shows the most interesting graph, I think. We will not go into details. It is the fact that most of the climate adaptation strategies also have a benefit on mitigation. People are ready to accept adaptation measures because it will give them more value for money – it will protect them from a heatwave, it will protect them from lack of energy from grid dependency. They will be ready to pay.

Maybe western countries should be able to focus on this kind of strategy that gives households value for money and to discuss with other countries how to phase out the more polluting fossil fuels, but not be completely focused on mitigation because I think it is not acceptable in western parts of the world either at the moment.

I have not had the time to talk about gigafactories or batteries, but I can at the cocktails if you want.

Olivier Appert

Okay, thank you. I fully support what you said about adaptation and I remind you that, in the Kyoto Protocol, adaptation and mitigation were treated the same way. Unfortunately, COP after COP, adaptation totally disappeared. It came back recently and I hope it will be very important for COP28 to increase the consciousness on adaptation.