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Energy Independence

Sébastien Clerc is CEO of Voltalia, a French renewables producer. Sébastien tells Nomura Greentech that energy dependence concerns will accelerate the rollout of renewables in Europe.

Q | What made you join Voltalia and what first triggered your interest in sustainability?

I arrived in renewables by chance having been involved in small projects since the 1990s. In the beginning, it was just part of my work and today, 100% of deployment is renewables. In the early days, I worked on small-scale hydro and biomass in Canada. At the time, I was only vaguely conscious about climate issues and by the late 90s, I realized it was really essential.

I worked on my first wind farm in California in 1994 while I was based in the US. When I returned to France in 1999, I was involved in wind and solar projects as well as highways, ports and pipelines.

I joined Voltalia at the end of 2011 as it was a way to fully concentrate on sustainable infrastructure and renewable energy in particular. It was becoming quite obvious at the time that renewables were cost competitive versus other energy sources.

I have an interest in the history of energy. I majored in history, have a Masters in history and economics, and another Masters in finance from Science Po in France.

Q | The Paris Agreement in 2015 set out certain goals around limiting warming to 1.5 degrees Celsius. Are these goals still realistic given global emissions haven't yet peaked, and the most recent IPCC assessment predicted we would soon cross the 1.5C threshold?

I have mixed feelings. I'm optimistic about a bigger market share of renewables within electricity generation and about the market share of electricity within the overall universe of energy consumption. I think it's quite unstoppable.

It moves at a pace that might be too slow but it's the easiest part of the net zero equation because renewables are so cost effective.

Where I'm really doubtful is outside the world of electricity. Some transportation will be difficult to electrify. I'm also concerned about agriculture, which is a big challenge to decarbonize. Overall, it won't be easy to be meet the 1.5 Celsius target but it's still possible.

Q | Voltalia is active in solar, wind, biomass and hydro, batteries and energy efficiency. Why has there been less development of biomass and hydro?

The hydro sector is growing very slowly and in many countries, the best sites are already taken, making progress difficult other than by buying existing assets but that doesn't move the dial on climate change.

Biomass has similar challenges. The growth potential is not that big. In many countries, biomass is better off for heating or transportation without going through electricity to avoid the conversion from wood to electricity and then electricity to heating, where you lose a lot of the potential.

Also, it should really be burned locally to avoid transportation emissions. On top of that, it's best use is when you have nothing better to do with it. For instance, we are involved in biomass in Latin America and French Guyana where you don't need heating. So either you leave it on the floor and it creates emissions or you burn it to produce electricity.

In batteries, the sector is small for now but we have a presence. For energy efficiency, the market is already established, and we need to do more because the best kilowatt hour is the one that is not consumed.

Our energy efficiency business is operated through our subsidiary Helexia, which specializes in solar rooftops for large buildings such as warehouses, supermarkets and factories – anywhere with a big flat roof such as a parking lot.

It offers building owners the chance to self-produce solar electricity onsite and to minimize electricity consumption through efficiency gains by redoing isolation and modernizing heating/cooling systems.

Helexia acts either as a service provider or as an owner of the solar rooftop and the energy efficiency investments and gets paid from the client's energy savings.

Q | Under the IEA's net zero emissions by 2050 scenario, renewable share of generation needs to double from almost 29% in 2021 to more than 60%. How do we get there?

This is where I'm optimistic. It will happen fast provided two conditions are met. One is to speed up the permitting process with the biggest constraint being the 'not in my backyard' brigade or just too much bureaucracy. The second condition is to create a low risk environment for investors. This can be achieved by creating regulated utilities, either via monopolies or something similar. Risks can be lowered via long-term power purchase agreements or long-term contracts for difference which swap the fixed versus floating price of electricity.

Low risk speeds up the construction of new plants and provides a low cost of capital. And in an industry which is probably the most capital intensive of all, this is an essential ingredient to achieve a competitive kilowatt hour.

Q | Have you seen an uptick in inquiries due to energy dependence concerns around the Russia-Ukraine war?

Yes, and this is a theme I have talked about ever since the IPO of Voltalia in 2014. I've long said that the renewables sector is driven by four growth engines: 1. governments who want to fight climate change; 2. cost competitiveness; 3. the growing global demand for electricity; 4. geostrategic independence via locally produced energy.

The front cover of the Economist back in 2014 depicted Mr. Putin holding some of Europe's

leaders like puppets with gas pipelines drawn underneath. At the time, I used two examples to illustrate energy dependence. If you were Moroccan you would not want to rely on natural gas from Algeria, and If you were Ukrainian you would love wind farms.

But of course, for the past 12 months, I see more questions on this subject. Quite often, the next question raises the risk of importing huge quantities of solar panels from China. In response, I say that we'd be better off if we had imported solar panels from Russia versus gas because once the solar panel is on your territory, the exporting country cannot do anything except slowing down the arrival of new capacity, which is a minor problem versus stopping the existing capacity.

Ultimately, the increased capacity in solar means Europe won't be held hostage by Russia in future.

It is pretty clear that European electricity has mainly come from gas and coal plus some nuclear and renewables. Gas is not coming back. Even if Ukraine wins the war, I don't see many reasonable scenarios where Europe would start to import the same volumes as it did previously. It would take a lot of time to fix the Nord Stream pipelines and for geopolitical reasons, even if there was regime change in Russia, I think Europe would be more cautious than before.

The second main source of imported energy is coal but I don't see coal production increasing because Europe is genuinely fighting climate change. All of that means we are left with more nuclear, solar and wind.

More nuclear is not possible in many European countries for historical reasons. And in countries where it is doable, it will take 20 years. There is an ambition to create small modular reactors (SMRs) but it's currently just an ambition. For those countries that don't have a nuclear authority, it can easily take 15 years to create one taking into account new laws, institutions, training specialists and hiring industry monitors.

Then there's the issue of sourcing uranium. It's a small portion of the cost of a nuclear kilowatt hour, but it is still essential to produce nuclear power and as of today, France imports a big portion of its uranium from Russia.

Nuclear is only independently produced electricity if you have raw materials, and Europe doesn't produce uranium. For all of these reasons, the only way forward for Europe is to build as much renewable capacity as possible as fast as possible.

Q | What are your future plans?

We set a new plan last year to double our installed renewables capacity by 2027 to 5 gigawatts and to significantly increase our services to third parties, which will add another 8 gigawatts for clients.

As we are a mission driven company, our objectives include helping our clients save 4 million tons of CO2 by 2027 from switching to renewables.

Solar will continue to be the biggest proportion of energy for Voltalia. Historically, we have invested in wind but new projects are increasingly solar because in most countries it produces cheaper electricity.

But in all countries, you need a mix of renewables. We see Europe growing faster than expected because of the war in Ukraine. We also see progress in Africa because of the energy crisis in South Africa and the hydrogen ambitions of countries such as Egypt. Latin America especially Brazil continues to grow and it's where we have the largest capacity today.

Q | Do you think the US IRA and EU Green Deal Industrial Plan will provide the policy tailwind for the next leg up in renewables or will the market become less global due to protectionism?

Governments are one of the four growth engines I referred to earlier, so a faster engine benefits the whole industry but it is still only one out of four.

The IRA and Green Deal are both good for the industry yet it's also possible to be good and protectionist. So while these policies will boost growth, if they include too much protectionism, it means the US and Europe will have a higher cost of energy.

To illustrate the point, if theoretically, there was suddenly a law in Europe which stated that solar plants can only be built with European solar panels made with raw materials coming from Europe, firstly, it would take 10 years before we achieve volumes and secondly, the cost of these panels would be much higher.

It would be good risk management to produce solar panels in more countries around the world because it creates stability, but we would need to make sure the countries which take market share from China are cost competitive in order to maintain cheap energy.

Q | Where do you stand on the debate about long-term power purchase agreements (PPAs) for renewables versus pricing as a dynamic commodity market?

These long-term contracts provide cheap energy for the industry and the population.

In fact, if all sources of energy compete for long-term PPAs, we would have the best of both worlds – the benefits of strong competition plus low cost of capital because producers like us will ask for a lower return on equity and the banks will accept higher leverage and lower interest rates because of the certainty provided by long-term PPAs.

It's a well-designed, sophisticated market and it's naïve to think that people will build power plants hoping that the spot price will be the same for the next 30 years to get a return.

We have had 10 years of seminars, books and consultants asking us to consider something that takes ten seconds to understand because the renewable plant is 100% fixed cost. Capex is not changing and isn't dependent on the spot price, so strong competition for long-term contracts is the best outcome.

To take a French example, EDF said that it will never invest in a new nuclear plant without a PPA or a monopoly – something to protect it from having fixed costs with variable revenues.

A good regulator will ask distributors of electricity to have a big chunk of their volume with long-term purchases exactly the same way as regulators ask banks who make long-term loans to do so with long-term borrowing.

Q | Who's your sustainable hero and why?

My sustainable hero is the advisor to the King of Easter Island who realized that the island was about to be destroyed and warned the king to save it. Unfortunately, he was not convincing enough.

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