

# LADISLAS PASZKIEWICZ

## Vice President Strategy & Climate, Total

### Donald JOHNSTON

I am going to change the order of presentations, because after Mr Appert's presentation, I think it would be good to hear from an energy producer. The message seems to be from Mr Appert that there is no problem in relying on fossil fuels out to 2040, and perhaps far beyond.

Total is going to talk to us about how their production techniques and everything else are consistent with the 2° limit, as I understand it. I think it would be good to hear now from Total.

Bear in mind, when I talk to some of my American friends, they say, 'There is no problem. We are going to be on natural gas'. I think as Total will point out and as others have, natural gas produces up to 50% of the CO<sub>2</sub> that coal does, so that is not a long-term solution to the problem.

### Ladislav PASZKIEWICZ

Thank you for giving me the opportunity for me to present to you what we are doing at Total in terms of strategy and climate. It is important to know that we have actually changed the structure of the company while combining strategy and climate. This means that we want to integrate the climate aspect within the strategy of the company. It is clear that oil and gas is responsible for about 37% of the GHG emissions, I would say. As a consequence, we consider that we are part of the problem and then we should be part of the solution as well.

We want to meet the 2°C target set by the IEA, which means reducing the gigatons of CO<sub>2</sub> being emitted from about 30 today to 20 by 2040. There are three main ways that we identified in order to get there. The first one is to have more renewable energy and this seems clear. The second one is to improve energy efficiency and the third one is to optimise the energy mix that we have in our portfolio. It is only by joining together these three different ways will we be in a position to match or to achieve the 2° scenario.

One aspect that seems very important to us is gas, in particular compared to coal. Gas emits half as much as coal when we talk about power generation. It is actually critical to increase gas power for electricity generation compared to coal, in order to improve the situation in terms of emissions. Does that mean that we will not need any more oil and gas? I think this has been addressed already, and the answer is no.

By 2035, slightly less than half of the need for energy will be provided by oil and gas, and so it remains absolutely key to continue producing oil and gas. We have illustrated that for gas, for instance, there will be a natural decline in the fields for the years to come and a demand which is anticipated by IEA under the 2° scenario. Still, there are many new projects which have to come on stream in order to meet the demand in the future. That is the case for gas and it is the case for oil as well, with even more investments needed in future for the demand to be met.

At Total, the ambition is to be consistent with this IEA 2° scenario, and we intend to get there by combining many different actions. First, it is clear that we cannot do things just by ourselves. We need to work with governments and industries. We believe and we are strong supporters of having a price on carbon for economic decisions to actually be made. The economic aspect is absolutely key when talking about adaptation to climate change.



We need to focus our oil and gas projects on projects with low break-evens. Being involved in the Middle East and in these countries in particular does help the case very much, and these countries do offer low break-even projects. We must give priority to gas, which I mentioned already, and for us, this is linked to the decision to exit the coal business. Finally, growing low-carbon business is also one area that we decided to focus on.

When talking about gas, I think we have to include in our strategy not only the switch towards gas, but we need to be very careful about the problem of methane emissions. As you know, methane has more impact even than CO<sub>2</sub> as a GHG. We put a lot of importance on the fact that we should help and try to measure methane emission better in order to be in a position to tackle this specific issue in the future. Regarding the price of carbon, when assessing the value of projects, we put a USD 30-40 price on carbon, even though that is not necessarily the price that we would be paying. This is because the market is not there at this time. It is in order to prepare ourselves and to be in a position to compare projects with each other, assuming that the CO<sub>2</sub> content associated with these projects would be taxed.

I mentioned that we cannot do things just by ourselves. We are partners of many different organisations. The only one that I would like to indicate is the OGCI, which is the original organisation among oil and gas companies, including NOCs and IOCs. It is interesting to note that our companies, which are very often competitors, can also be partners. This is in particular through the OGCI and this new OGCI climate investment, where we decided to dedicate all 10 companies. USD 1 billion will be invested in the next 10 years in order to deliver practical solutions to climate risk. This is a good example of how the industry can cooperate.

Another aspect which seems important when we look at all the different possibilities for tackling the issue of climate change is carbon capture, usage and storage (CCUS). A lot of research is being done and money is being spent in order to improve what we can do in terms of CCUS, not only the capture and storage, but also for the usage of CO<sub>2</sub> in terms of chemical improvements. As you may know, Total is a leader in solar energy, so that is the third pillar in increasing renewables in our portfolio. This is through the participation we have in the listed company SunPower. For us, the idea is not actually to have a huge shift in terms of capital allocation, but to accompany the energy mix. We want to have part of our capital employed, about 5%, in gas renewables and power in order to address and accompany the evolution in the mix.

We are providing solutions to clients in countries where we operate. For us, this is particularly the case for Africa, where we develop social businesses that promote access to clean energy. The idea is to provide energy to more and more people. We have the ambition to reach 25 million people in Africa through this Awango programme, which is about solar lamps. Finally, we need reduce our own emissions. We set the objective to improve energy efficiency by 1% per year and to reduce routine flaring by 80% between 2010 and 2020 and to eliminate it by 2030.

Finally, it is clear that R&D is absolutely crucial if we want to improve in combating climate change. We dedicate about 25% of our R&D programme to cleantech and environmental issues, and we intend to spend more than USD 7 billion between 2015 and 2019. It is clear that dedicating R&D to a very large extent on this topic is key for it to improve. The purpose of my comments is not to tell you what companies should do. This is just an illustration of the way that Total very practically sees the issue and how we get organised in order to handle this problem as much as we can. We know that in the end, our objective is to supply clean, sustainable, affordable energy to as many people as we can.

### **Donald JOHNSTON**

I will come back to the issue of timeframes after. I felt with all these issues regarding emissions that we are running against a clock. I am not quite sure when midnight comes according to the IEA and the other projections. I will probably hear from some of you on that, but there is another question that I think will come up at the end. Total is one of the large energy producers, but there are others as well. Are they being as faithful to the IEA standards and to



setting the 2° standard as you are? I do not want to insult any of your competitors, but I just do not know and I do not have any numbers. Thank you for that presentation.

What I would like to do before moving to technology is to invite Mr Lee, who is South Korea's G20 Sherpa and ambassador for international economic affairs, to tell us how he sees the overall situation evolving, and then we will move onto the technologies. We will have some questions before that, because I think it should be broken into two parts, as my very able assistant from IFRI has suggested.

**Hye-Min LEE**

I am very pleased to be here to share the views and the discussions undertaken at the G20 with regard to climate change. I think I am the only person who deals with policy issues and I think it will be helpful for you to understand.

**Donald JOHNSTON**

Would you prefer to come in at the end on the policy issues?

**Hye-Min LEE**

I will if you prefer.

**Donald JOHNSTON**

Maybe we should come to the policy issues at the end.