

## **Transcript of Interview with CEO of BP Biofuels, Philip New**

Interview conducted by Stefaniya Becking during The World Biofuels Markets conference 2012 in Rotterdam on March 14, 2012 (lightly edited)

**SB = Steffi Becking**

**PN = Philip New**

**SB: Do you intend to be Number 1 in biofuels?**

**PN:** What does it mean to be Number 1? Does it mean you are the first, does it mean you are the biggest, does it mean you are the most profitable?

**SB: Number 1 in biofuels production wise.**

**PN:** What we want to do is to build a biofuel business that is sustainable on a material scale for a company like BP. Now, whether that means we are the biggest I think is not that important. What it means is that we got something that is a good business that gives us competitive returns and it is sustainable for a long run.

**SB: Mistakes and lessons learned so far on the projects in Brazil, as you are building UK plant and in Florida?**

**PN:** We have been at this for quite a long while and we have been very thoughtful about the strategic approach that we have taken. So, I think while we were experimenting and learning, we made smallish errors of choice in what to do.

**SB: Like what?**

**PN:** We did go in a joint venture to develop jatropha. While I think jatropha has a very strong role to play as a feedstock in some circumstances, it would not have been a business that would have made sense for BP.

**SB: Why not?**

**PN:** We could not develop a business model that would enable us to get to the right scale. We see now jatropha as having a role to play as a small holder, a complimentary crop rather than something that can be grown at the scale of sugar cane or something similar. That is the issue. And if you are doing this as small holders, how do you have a business model that enables you to be able to respect their interest and create a sensible business. It is very-very difficult and requires a whole different level of engagement with the communities.

What have we learned? We have learned that:

- \* everything takes longer than you anticipate.
- \* integrating biotech and agriculture and process engineering is very challenging.

We think that only a small number of companies can do it. We think that that is one of the reasons why firms like BP are advantaged in that we do have some capacity in that area. I think a lot of people underestimate the challenges of scale up, not because of the issue of capital raising but just the sheer practical challenge of implementation: getting your process engineering and project management aligned

with all the excitement and laboratory of biotech and being able to connect that with infrastructure and organization to get your feedstock. So this is a very-very complicated task to get right the first time.

**SB: What is your strategy as far as home-grown R&D vs. acquisition of start-ups?**

**PN:** We kind of acquired our R&D when we acquired Verenium biofuels activity. We also have through our relationship with Energy Biosciences Institute access to a huge network of very talented researchers. With that as our backbone, we think we are reasonably well served. Now, on top of that, BP Ventures business continues to take tactical investments in startups that we think are interesting, either because they could be a complimentary to what we are developing or because they could have ultimately a game changer that means that we have to completely rethink. So being able to participate through our Ventures Business gives us that insight as well. We are always open to partner and to invest.

Over the last year, we have been working very closely, for example, with Verdezyne around yeast development, an independent small company. We will work in partnership, through ventures we will invest and we will do whatever we feel is appropriate to make sure we got the technology, the capacity and the freedom to operate to deliver our strategy.

**SB: What in your view are the top three challenges in the biofuel industry. You have mentioned just the logistics of the scale up, so that would be one. What are the other two that you would say are the top challenges?**

**PN:** Access to feedstock.

**SB: And that is?**

**PN:** Particularly, for cellulosic feedstocks. There is ag waste, but then purpose-grown feedstocks are more challenging. Our strategy has always been based around selection of the feedstock because we think that the whole industry is based on your feedstock choice and that determines your outcome. So, for us, start with understanding of feedstock that we want to use, then let's think about the technology that is necessary to enable that feedstock to come into play. I worry that much of the industry has got the conversion technologies but will be scrambling around for appropriate feedstocks to use.

**SB: When you say access to feedstock, does that include building the relationship with ag community and just the logistics of lining things up?**

**PN:** Yes, and making sure that you have got the germ plants available. Many of the crops that we have been talking about have not been developed commercially yet, or at the very early stage of development. So, there is a lot that is not known around disease resistance and so forth. So, that needs to be handled. I suppose the final major challenge is what I was talking about in there [keynote presentation]: building the societal license to operate that will underpin enduring regulatory and legislative support.

**SB: I am from Russia originally, what are your plans, if any, in Russia?**

**PN:** I think Russia [particularly, Southern Russia] is an area that got a great potential, particularly for some of cellulosic feedstock. Our view though is we have to deliver the future one step at a time. Step one is let's build a sensible business in Brazil and show that we know how to operate this, so we can do something like this that is scalable. Step two, let's show that we can do cellulosic in the United States and prove our technology. When we got that secured, we can start expanding into other geographies. But I am very nervous about over-extending ourselves too early and then failing.

**SB: What are your views on runoff of nutrients and nitrogen in particular as related to growing energy crops?**

**PN:** I think that this is one of the big advantages of the crops that we chosen to use because: 1) they are perennial crops, so their water and fertilizer needs are much lower than row crops, 2) the fact that they got these deep roots means that the runoff risk is lower and we are working very hard on our ag engineering (because these have not been grown before, so we are doing the whole field engineering from fresh to try to make sure we are managing the runoff risks). And of course everything we are doing is in very close consultation with local water boards and resource boards, who are very clear about issues of runoff.

**SB: What do you think is a global image of BP?**

**PN:** I don't know, you have to ask someone else that. It is not for me to say what our global image is. What we are doing is trying to say: we think if biofuel industry is to have a license to operate then we have to be very thoughtful about making sure that we delivery and deploy biofuels as sustainably and responsibly as possible. So what we are trying to do is to build a reputation for thoughtful, sustainable, responsible development of biofuels.