The Global Clean Energy Race

Testimony to the US House of Representatives Select Committee for Energy Independence and Global Warming

Michael Liebreich
Chief Executive
Bloomberg New Energy Finance

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Good morning, Chairman Markey, ladies and gentlemen. Let me thank you first of all for inviting me here today. By way of background, I founded New Energy Finance in 2004 to help investors and policymakers understand the economics of clean energy. I built a team of 140 experts around the world before we were bought at the end of last year by Bloomberg, the financial information provider.

I will divide my remarks into two sections. First – with the help of slides – I will provide an up-to-date picture of investment activity around the world. Second – I will comment more generally on the related issues of jobs, policy and international competition.

As you can see from my first slide [Slide 2], global investment in new forms of clean energy surged from under $50bn in 2004 to over $170bn just four years later. These figures exclude traditional forms of lower-carbon energy – large-scale hydro, natural gas and nuclear – although I would be the first to agree that these will play a significant role in the energy system of the future.

In 2009, the volume of investment dropped by 7% to $162bn as the sector was hit by the financial crisis. At one point, valuations of clean energy stocks were down from their peak by around 70% [Slide 3], before recovering some of their losses. It is worth noting that they are still double what they were in 2003 – a compound return over the last seven years of just under 10% per annum.

The impact of the crisis on the industry could have been worse. It would be tempting to think that the "green stimulus" programmes around the world were the major factor in staving off disaster. However, although we identified a total of $184bn of such funds allocated for clean energy alone, the fact is that in 2009 only 9% of it reached companies and projects in need [Slide 4].

In the US, investment fell off a cliff in the aftermath of the Lehman collapse; on an annualised basis it was only this year that it started to climb again, as the American Recovery and Reinvestment Act funds started to flow [Slide 5].

The world's providers of concessionary finance – the IFC, European Investment Bank, Brazil's BNDES and so on – were much quicker in responding to the crisis, increasing their lending from just $7bn in 2007 to

$21bn in 2009 [slide 6]. The role these multilateral institutions and development banks have played and continue to play often gets overlooked.

And these figures do not include the Chinese banks. Their provision of cheap finance to manufacturers and developers has been a major factor in driving surging investment there [Slide 7]. By 2009, China was absorbing nearly three times the level of clean energy investment as the UK, the US or Spain [Slide 8]. In just the past five months alone, the China Development Bank alone has provided [$27bn] in concessionary finance to Chinese wind and solar companies.

China's leaders have supported the sector not only by providing cheap finance, but also by creating domestic demand on a grand scale, setting local content rules, maintaining tariffs on foreign imports as well as, of course, maintaining an undervalued currency.

Before we become too pessimistic about the state of clean energy in the US, we should recall that it remains by far the world's leading venue for venture investment, even in clean energy technologies [Slide 9]. US companies spend more as a percentage of revenue on research, and the US stock markets continue to attract public offerings from companies around the world [Slide 10].

However, there is no question that the period 2007 to 2009 saw Asia take over from the Americas as the number two region of the world for clean energy investment [Slide 11]. And indeed, when we compile the figures for 2010, we will see that Asia has eclipsed Europe to take the global lead.

Now if I might turn my attention briefly to the question of US policy.

Those who deride the US for inaction are not correct. Not only do [30] states have clean energy portfolio standards, but there are also significant national programmes such as the Renewable Fuel Standard, increasingly stringent CAFÉ standards, and substantial Federal R&D programmes. Our research shows that ARRA – in particular its grants and loan guarantees – played a material role in keeping the flow of funding going during 2009 and 2010.

What is missing is the sort of consistent policy framework that has driven the development of clean energy first in Denmark, Germany and Spain, then China, and now other major economies. In 2008, the South Korean President, Mr. Lee Myung-bak, presented a plan to cut the country's carbon emissions by 30% from business as usual without jeopardizing growth. The Korean government will be investing 2% of gross domestic product over the next five years, and leading Korean industrial companies have responded by announcing investments of over $80 billion between now and 2020.

Contrast this with the US, where the industry's Production and Investment Tax Credits have in the past been allowed to expire every two years; a highly effective ARRA programme may not get extended; and in California, Proposition 23 is targeting the repeal of AB32. Alone amongst the major economies, the US's negotiators had to make a commitment under the Copenhagen Accord to a cut in carbon emissions without national legislation in place to deliver it.

I do not agree with some of the more pessimistic figures being thrown around for job losses if ARRA's cash grants are not extended beyond the end of this year. Most major developers will start their

projects in time, or have access to other forms of finance. The larger issue, however, is that no amount of temporary, supply-side tax breaks can substitute for the long-term creation of demand, through either a carbon tax, tariff support, energy efficiency regulations or aggressive national portfolio standard.

Winston Churchill said “the Americans will always do the right thing, once they have exhausted all the alternatives.” I have no doubt that the US will at some point wake up to the strategic necessity and growth opportunity offered by a shift to clean energy. I only hope other countries will not in the meantime have established an unassailable technological lead.

Many thanks for your patience in listening to me.