

Peter Bance on BBC Radio 4's 'Today' program: Wednesday 15th July 2009

Adam Shore: The government will set out policies today that are designed to meet the UK's targets for cutting greenhouse gasses. Under the Climate Change Act, the UK has to reduce emissions by 34 percent by the year 2020 and at least 80 percent by the year 2050. The UK Low Carbon Transition Plan is expected to layout plans on how we will increase renewable energy capacity ten fold and force energy suppliers to buy more energy from renewable sources such as wind and solar power. However there will also be a new system for homeowners to be paid for any extra renewable electricity they supply back to the national grid. This is something called micro generation. Peter Bance is Chief Executive of Ceres Power which sells micro generation technology. Good morning.

Peter Bance: Good Morning

Adam Shore: Ironically, hours after the governments announces its plans for greener energy generation, the only significant manufacturer of wind turbines in this country is expected to announce it is going to stop production. What does that say about our commitment to renewable energy?

Peter Bance: Well it certainly says that on certain technologies we've probably missed the boat in the UK to actually be the lead manufacturer and developer of some but the country will certainly be deploying clean energy solutions at scale. We have to; most of the countries around the world have to. The key challenge for the UK is to make sure that in these emerging technologies, we don't just end up importing all the solutions from overseas so we can actually develop a world leading position ourselves.

Adam Shore: And there's a lot of talk about so called "renewables" but in some senses that misses another big issue because some of this is about installing mini power plants into your home which are more efficient, even though they use actually very traditional sources like gas.

Peter Bance: Exactly so. The world doesn't need, strictly speaking, more renewables it needs lower carbon emissions. There are different ways of achieving that. Products like ours use today's energy sources like natural gas which are widely distributed to millions of homes, you just use those resources fantastically more efficiently than is possible today in centralised power plants.

Adam Shore: What is so inefficient about centralised generation that we could then revolutionise?

Peter Bance: Well, most people aren't aware of it, but today in a normal power station over half the energy going into the power plant is lost up the chimney forever and another ten or fifteen percent is lost down the wires.

Adam Shore: So it just leaks out in the national grid before it gets to your home.

Peter Bance: Exactly. Between two thirds and three quarters of the energy, typically, is lost by the time it gets to a typical house. So if you could do anything to avoid that massive loss, that's a great thing. So there are products which don't just convert thirty percent of the energy into useful output, but if you make the electricity at home, and the heat at home, you can convert ninety percent of that energy into useful output. You can double or triple the efficiency of the grid.

Adam Shore: And do you therefore see a dramatic fall in your electricity or power bills?

Peter Bance: You do. With products like ours you can reduce a typical home's electricity consumption by eighty or even ninety percent. It's a big change in home energy.

Adam Shore: It's a big change, but it's also very expensive isn't it?

Peter Bance: Initially, like most emerging technologies, there is a premium to be paid before mass production kicks in and you get economies of scale. That's why what we hope to hear today from government is that incentives to drive earlier uptake which are going to be so important to drive that mass market option. By the time mass production and economies of scale kick in there is no need for long term subsidy.

Adam Shore: One wonders though that if you could see a sixty percent drop in my energy bills at home, why on earth would I need any sort of government incentive, that should be incentive enough, unless your machinery and other companies like yours is so expensive actually that the efficiency is rather lost in the wash?

Peter Bance: Yes, if you look at the potential for micro generation, certainly the government's own studies show that thirty to forty percent of all electricity generated could credibly be made by householders.

Adam Shore: But that is quite a claim. I mean that is more than, for instance, nuclear generation does for us at the moment.

Peter Bance: That's right and I think those claims are credible. One of the reasons why people have focused on big upstream bets, whether those are nuclear, carbon capture or wind, is because it kind of captures the imagination. The other half of the equation is how energy is used; typically that's in people's homes. If address that, you stand a change of meeting our carbon emissions targets, if you don't, you won't.