

U.S. Climate Policy: Toward a Sensible Center

June 25, 2004

Excerpt: Stephen Timms, Energy Minister, United Kingdom

MS. CLAUSSEN: I'm sorry. I'm still reeling from being quoted.

We're going to have a slight change in the program in part because Congressman Gilchrest is having a vote and will be here later. But I actually think the change is quite beneficial.

Stephen Timms, the Minister of Energy for the United Kingdom, is here and so he will come before Congressman Gilchrest. And I think it's important for us to sort of see another national effort in dealing with this issue, and it's quite a different one.

I actually think the U.K. program is the best program in the world on a national basis. And I say that because I think it has a long-term focus, but it has short- and medium-term steps along the way. I think it is being implemented with great vigor, even though the challenges are great. And I think it is really focused on this issue in a way that is highly beneficial and, in fact, in many ways should be something that I think we all think about here in the U.S.

So with that introduction, Stephen Timms, who has been a Member of Parliament since 1994 and is the Minister of Energy and is really charged with implementation of the energy plan, I think will give us a good view of that. Steve?

[Applause.]

MR. TIMMS: Thank you very much, Eileen, for that welcome. I'm delighted to be here. Thank you for the opportunity of speaking to you. I'm very pleased to see such a wide cross-section of opinion formers and leaders here today, and I've been following with very great interest the deepening debate on this important issue in the U.S., including in Congress. And I pay tribute to the leadership that's been shown by many who are here.

The science of climate change I think is pretty clear. There is a worldwide consensus. The U.S. National Academy of Sciences, the Intergovernmental Panel on Climate Change, have underlined that over 370 parts per million concentration of atmospheric CO₂ is higher than seen for over 400,000 years and is going to go up further on every scenario in the years ahead.

The facts are pointing unrelentingly in one direction, and that is that climate change is not tomorrow's problem, it is with us today. But the impacts will increase in their scale and in their magnitude if we don't take serious and urgent action now. The emissions trends are still sharply upwards. The Intergovernmental Panel, which is the world's leading scientific authority, projects that global emissions could double by 2025. Temperature is predicted to go up by another up to 6 degrees Celsius this century, between two and ten times as much warming as there was over the last century.

It's a global problem. It requires global action. Every country has a responsibility to act, but developed countries who have the best capacity to act and who carry the biggest responsibility for the problem have the duty to take the lead.

The window for stabilizing CO2 concentrations at a level that may now be consistent with keeping global warming to another 2 degrees Celsius is very limited. The window is very limited because global CO2 emissions may well have to peak and to start to decline in the next couple of decades if we're going to achieve that.

But even just a 2-degree average global temperature increase could be terribly damaging, could mean 4 degrees in parts of the developing world. In Africa, just a 1-degree increase is likely to lead to GDP losses of 4 percent.

So the scale of the impact we're looking at is very big indeed, and that's why Tony Blair has announced that climate change is going to be one of his two key priorities, alongside Africa, for the U.K. presidency of the G-8 next year.

In the U.K., we have been able to show decoupling of greenhouse gas emissions from economic growth. Between 1990 and 2002, a 12-year period, our emissions fell by nearly 15 percent. The economy grew by over 30 percent. We're committed to deliver, go beyond our Kyoto target, and we're looking at our program at the moment to make sure we achieve that. But we also recognize the need to show international leadership and to send clear signals to markets about the future to promote greater certainty.

Climate change policy and energy policy are two sides of the same coin. We can't discuss the shift we need to a low-carbon economy without also considering energy security and the impact on international competitiveness, and high oil prices have highlighted those pressures.

So last year, we published the program that Eileen very kindly referred to, our Energy White Paper, the first comprehensive statement of U.K. long-term energy policy for over 20 years. It signed up some pretty bold ambitions, particularly on the environmental front. But I think in the U.K. more and more there is a sense that these are things we simply have to achieve.

The White Paper set four new goals for our energy policy: number one, putting ourselves on track to cut U.K. carbon dioxide emissions by 60 percent by 2050; number two, to maintain the reliability of our energy supplies; number three, to promote competitive energy markets; number four, to make sure that every home is adequately and affordably heated.

And we'll achieve those long-term targets through policies in four main areas, and I want to just say a little about each of them: energy efficiency, transport, renewables, emissions trading.

Energy efficiency, first of all, the safest, the most cost-effective way to deliver the changes that we need, and that's why we put it at the heart of our strategy. The White Paper projected some 10 million tons of carbon dioxide a year, about half of the total savings in our climate change program, would come from energy efficiency initiatives. That requires a step change compared with what we've been achieving up to now. Our Energy Efficiency Action Plan, which was published just April, a couple of months ago, fulfills the commitment set out in how we're going to deliver that, and it included a variety of measures, a new aim, first of all, to reduce household carbon emissions by just over four million tons--that's around 10 percent--by 2010.

The principal lever for that will be doubling the level of our energy efficiency commitment, which is a legal obligation on electricity and gas suppliers to carry out energy-saving measures in households to put in the investments that are needed, and by making also the most efficient boilers mandatory in homes from next year. We've introduced new fiscal incentives as well to promote energy efficiency in people's homes.

Secondly, we're going to tighten the targets under our climate change agreements. Those are voluntary agreements with 44 energy-intensive industry sectors which, in return, get a discount on their payments under the industrial climate change levy. We're looking to extend those agreements to other sectors as well.

We've undertaken to show government leadership in a number of key areas, the most important being a commitment for central government to use only the 25 percent most energy efficient buildings for its own purposes. And we're placing a much stronger emphasis on communicating the reality of climate change to the public and explaining to people how energy use by individuals, by businesses, and the public sector can make a real difference in achieving the goals that we've set.

Secondly, transport, transport emissions, a big, big challenge. But we're not shying away from taking action. Voluntary agreements with European Union car manufacturers are driving down emissions from new cars, leading to significant carbon savings by 2010. Average new car CO₂ emissions have fallen by about 10 percent over the past ten years. More efficient, less polluting vehicles also contribute, of course, to better air quality. And there's a really big competitive opportunity here to break into new and expanding markets which can only continue to expand as consumers in the future become increasingly concerned and informed about the economic benefits of more efficient, cleaner vehicles.

Through our ultra-low-carbon car challenge, five U.K.-based consortia are developing efficient family-sized cars capable of mass production, supporting that is a framework of fiscal and grant incentives, including the reformed CO₂-linked company car tax scheme, which saved an estimated 200,000 tons of carbon just last year.

We're also considering how to start moving away from fossil fuels altogether to biofuels and in the longer term to hydrogen. We published recently an assessment of alternative fuels which concluded that biofuels and renewable hydrogen -- [tape ends].

-- mutually exclusive. Both of them could yield big transport carbon savings by 2050. The prospects for the hydrogen economy I think at the moment remain somewhat uncertain, but we could in the U.K. produce enough renewable hydrogen for road transport, although that would be at the expense of renewable energy resource for other sectors.

And we reckoned as well that if the road transport fleet were fueled entirely with biofuels in 2050, then in the U.K. we could produce--grow about a third of the necessary biomass within the U.K. The rest would need to be imported.

More immediately, we're looking at how best to support the take-up of biofuels, the development of the U.K. biofuels industry, we're consulting about

biofuels at the moment and looking at the possibility of introducing a biofuels obligation, making the requirement that a proportion of vehicle fuel was produced from bio sources.

We're looking as well at emissions from aviation. The Energy White Paper argued that aviation ought to be encouraged to take account of its contribution to global warming. An Aviation White Paper, produced at the end of last year, said we should work for the inclusion of aviation in the European Union emissions trading scheme by 2008, or as soon as possible after that, and we'll continue as well to work through ICAO, the International Civil Aviation Organization, and other international bodies to deal with emissions from intercontinental aviation, too.

Third, on renewables, renewable energy will make a very important contribution to our carbon reduction targets, but it's important to recognize that renewable energy will contribute not just to the first of our White Paper goals on reducing carbon dioxide emissions, but to the other three as well. And, in particular, it will make an important contribution to the security of U.K. electricity supplies. That's important because within a few years the U.K. will no longer be self-sufficient in energy. We've enjoyed self-sufficiency in oil and gas for the past three decades thank to the North Sea. But that is coming to an end. Over the next decade, we'll be making a very significant transition to being net importers of oil and gas. We need to manage that transition successfully, and the renewable generation of electricity will make an important contribution.

We've set out as our first goal obtaining 10 percent of our electricity from renewable sources by 2010. We'd like to double that again by 2020. Our main lever for that is the renewable obligation. Now, that obligation requires all licensed electricity suppliers to supply a specified and a growing proportion of their electricity sales from renewable sources. The obligation was set at 3 percent when it was introduced in 2002. It went up to 4.3 percent last year, 4.9 percent this year. It will go up to 10.4 percent in 2010, and then in one-percentage-point steps up to 15.4 percent in 2015.

The way it works is that suppliers receive one renewable obligation certificate, or ROC, for every megawatt hour of electricity they generate from renewable sources. They can satisfy their legal obligation either by presenting ROCs obtained through their own generation or that they've purchased from others, or they can use a buyout facility, paying a fixed price for that part of their obligation that's not met through ROCs. The buyout fund is then recycled to those suppliers who have presented ROCs, so providing an additional source of funding for renewables investment.

The obligation is winning some very welcome praise as a flexible, market-oriented incentive mechanism, and it's our claim that our market-led solution is working. Centrica, the U.K. energy company, they're planning to invest three-quarters of a billion pounds in renewables. The success we've seen on the part of RWE Energy, another big supplier, in attracting 400 million pounds of City of London investment into their wind energy portfolio, those are encouraging signs of the confidence on the part of investors that we need.

Wind energy is the form of renewable energy with by far the best immediate prospects for expansion in the U.K. It will play a very big part in the expansion we're aiming for. That's onshore wind and offshore wind as well. There are at the moment wind generation projects in the U.K. amounting to more than 2,000 megawatts in capacity which have received consent and can go ahead, compared with total U.K. wind capacity of less than 1,000 megawatts today. So we are on the brink of what for us is a huge expansion. The British Wind Energy Association estimates that some 400 megawatts of wind capacity will be built in the U.K. this year and more again next year.

The U.K.'s first big offshore wind farm is at North Hoyle, off the coast of North Wales at Rhyl. It's 60 megawatts capacity. It started generation electricity into the grid last autumn. A few weeks ago, I took the boat out from the small east coast port of Great Yarmouth to the second big offshore wind farm at Scroby Sands, again with a 60-megawatt capacity, generating its first electricity this month.

Consents were approved last year for eight offshore wind projects, and I'm pushing developers for construction to begin as soon as possible with a good number likely to be built through 2005.

There are much bigger offshore wind projects on the horizon. The Round Two offshore program, which leases were awarded for at the end of last year, will represent one of the biggest expansions of renewable energy anywhere. We hope that as many as half those projects can be delivered by 2010, providing between them well over a quarter of our 10-percent target. Some of them will extend beyond U.K. territorial waters, and the energy bill, which has completed its committee stage in the House of Commons this week, includes a legislative framework for renewable installations outside the 12-mile limit, which we're going to need to take advantage of with the Round Two program.

There are some very important new industrial opportunities we want to realize in renewables. We published an analysis recently showing there are already more than 8,000 people working in the renewable sector in the U.K., and that figure is expected to rise very sharply.

The German Chancellor, Gerhard Schroeder, speaking at the Bonn conference on renewable energy earlier this month, made the point that 120,000 people work in the renewable energy sector in Germany. We're determined to make the most of the potential for huge growth for the U.K. economy.

At the Bonn conference, I met the minister representing the Chinese Government, who told me that by 2020, his government expects to have renewable energy capacity equivalent to half the U.K.'s current total electricity generating capacity of all kinds. And I must say I was very impressed by his knowledge of the U.K. energy industry, as well as by the scale of his ambition.

There's a very, very large worldwide opportunity here that our firms need to be able to take advantage of.

Wind, of course, isn't the only technology with promise for a big impact. We want to bring forward a diverse range of renewable technologies. Our recently published Renewables Innovation Review has given us clear advice for the future. We want to make sure we can deliver its recommendations as soon as

our future funding is confirmed, and we have a three-year spending review announcement being made next week.

In the longer term, we expect biomass, solar, geothermal, wave and tidal energy to make a significant impact, and wave and tidal devices I think offer a particularly interesting opportunity for us in the U.K. for the future, and I hope we'll soon see some good progress improving the very technologies which are being developed at the moment, and in reducing their costs. The opening this summer of the European Marine Energy Center--it's a beautiful location on the coast of the Orkney mainland off of Scotland--demonstrates how we're looking further ahead to a larger and more diverse renewable energy sector in the longer term. And the idea is that a number of different technologies will be put through their paces at that test center in the Orkneys for a period of several months, benchmarked over the course of the next year or so.

Alongside domestic policy initiatives, international cooperation is key. We need to collaborate to bring together security, foreign policy, energy policy perspectives to meet the challenges of energy security and sustainable development and to strengthen our trading relationships. We've collaborated with the big and the very welcome U.S. initiatives of the International Partnership on the Hydrogen Economy, the Carbon Sequestration Leadership Forum. We're working together on science. We'll hold a hydrogen conference in London later this year.

We're collaborating as well on the Renewable Energy and Energy Efficiency Partnership launched by Tony Blair at the Johannesburg summit, the World Summit on Sustainable Development. That partnership--REEEP, for short--aims to break down the barriers that are holding up the take-up of renewable energy and energy efficiency technologies around the world. We very warmly welcome the U.S. Government's full participation in the partnership announced just a couple of months ago, and that partnership, therefore, now includes among its members the world's biggest economy alongside small nongovernment organizations in Africa. It is a truly global partnership that's hosted events in Europe, America, China, Africa, and is very clearly focused on removing the barriers that we're facing today.

Technology is critically important, but on its own it isn't enough. We need to use existing technologies. We need as well to stimulate innovation in new technologies for deployment in the longer term. We need to be sending the right signals to markets now--strong, unambiguous signals that give investors the long-term confidence that investment in low-carbon technologies will pay off.

And that's why we're moving forward aggressively with an emissions trading scheme in the U.K. and in Europe. The European Union scheme will cover all 25 EU member states. It will go live on the 1st of January next year. The first phase will run from 2005 to 2007. It will cover several thousand large industrial installations in all 25 European countries, accounting between them for nearly half of total European carbon dioxide emissions. It allows companies to undertake emission reduction projects overseas to help deliver their targets.

We expect the emissions trading market to be worth between \$7 and \$10 billion a year by 2010. It is a huge new market. It can only get bigger in the

future. And the second phase of the European Union scheme from 2008 to 2012 is likely to be expanded to cover more installations and all six greenhouse gases. And for us in the U.K., the European Union scheme is key to helping us to meet our domestic goal of a 20-percent reduction in carbon dioxide emissions on 1990 levels by 2010.

Emissions trading I think is an excellent example of where we can make real progress through transatlantic cooperation. The U.S. led the field with the idea. Initially, Europe was skeptical. We've learned fast in the meantime. We've embraced the idea. And I know there was a mention earlier of several Northeastern States joining to create their own carbon market. I hope very much that it will be technically compatible with what the European Union is doing because that way it could be the first step to a worldwide emissions trading market. We'd be very pleased to exchange experiences to set out how the European Union scheme works.

A single global trading market I think does hold out great attractions, reducing the costs of compliance, reducing the complexity for companies, and, of course, leading U.S. multinationals will be involved through their European operations in the EU scheme from next January. And we need all of us to work together to ensure we deliver it successfully.

I want just to say a word about the economics. There will, of course, be a price to be paid for the transition that we need to make to a low-carbon economy. But at the heart of our White Paper is the conviction that it will be an affordable cost, that achieving the big reduction of carbon dioxide emissions we're aiming for is entirely consistent with our aim for continuing economic growth and prosperity. That conviction was underpinned in our work on the White Paper by a great deal of economic and technical analysis, demonstrating that what we wanted to achieve was indeed affordable, given in particular the long-term time horizon that we've set for delivering the change that we need. And it was underpinned as well by the certain knowledge that the price of failure would be a great deal higher.

Modeling the costs of climate change is notoriously difficult, so we took a lot of trouble over our work, and our analysis indicated that the cost of achieving this 60-percent reduction in carbon emissions by 2050 was going to be of the order of half a percent to 2 percent of total GDP in 2050. So it would be equivalent to holding back economic growth by around six months over a 50-year period. That's the kind of price tag that we're talking about.

If we're to stabilize concentrations of greenhouse gases in the atmosphere at 550 parts per million, that's consistent with the 60-percent target that we've set. We projected the estimated impact on gross domestic product being a loss of around 1 percent in 2020, arriving to 1.5 percent in 2050.

It looks to us as though most of the modeling attempts, looking at the costs to the U.S. of greenhouse gas abatement, seem to be based on assumptions that necessarily imply high costs. And there are alternative and, in our view, more realistic assumptions that can suggest overall net benefits rather than net costs. And, in addition, we need to consider the co-benefits of reducing emissions. Using cleaner fuels can improve local air quality, improve public health, and

those benefits at least help to offset the costs of reducing emissions, whatever they ultimately turn out to be.

But it's increasingly apparent that the cost of not acting is going to be extremely high. The severe floods in Europe two years ago killed over 30 people, flooded some of Europe's most historic cities. According to the insurer Munich Re, the economic cost was over \$20 billion.

Last year, the European heat wave caused over 20,000 early deaths, cost over \$13 billion. The scale of the impacts are enormous, and we need to take the steps now that are needed to address them.

Tackling climate change will take leadership, will take dynamism, and commitment. I'm excited that there are so many actors already demonstrating those qualities and blazing the trail that others will need to follow in the years ahead, not just national governments but cities, states, some of the world's leading companies who want to lead the way and take advantage of the business opportunities that will be created.

I was speaking yesterday to Dupont, who were telling me about their objective that 10 percent of their electricity should come from renewable sources by 2010.

There are huge opportunities here. Through energy conservation measures, IBM has been able to reduce its emissions already by over 60 percent. BP set up an internal emissions trading scheme. It cost them \$20 million to set it up. In the first two years, it yielded energy efficiency savings of \$650 million, reduced their emissions by 20 percent.

There is in addition the opportunity for innovation and creating new markets, whole new markets for low-carbon technologies that are going to open up. The key for businesses is going to be first mover advantage. Last November, investors managing between them funds amounting to over \$1 trillion gathered at the UN in New York for the Institutional Investor Summit on Climate Change and to examine the financial implications of climate change. And what's great is to see the mainstream investment community now seriously engaging with the strategic and financial implications of responding to climate change. That's a development that I warmly welcome.

I spoke yesterday to a seminar on Wall Street of investors about renewable energy. They were expecting 150 people there. There were well over 300 that turned up. I think that the message of the scale of the opportunity we're looking at here is starting to register with those who need to take that to heart.

The Prime Minister, Tony Blair, made the point in April that climate change is the biggest and most urgent environmental challenge facing the world. He pledged to make, as I've said, climate change one of the U.K.'s two key priorities for the G-8 presidency next year.

There aren't quick or easy answers, but the evidence now means we can't delay action further because the costs of doing that would be far greater. We need to find ways to work together more closely, to show leadership, to help the developing world to meet the challenge of growing sustainably, as well as the developed world. We need to find a way of moving beyond Kyoto. It's critically

important that we address the issue of climate change now and that we're able to do it together.

Thank you very much.

[Applause.]

MR. TIMMS: I'm happy to take some questions. The gentleman here?

QUESTIONER: My name is Peter [inaudible]. I run the [inaudible] program for Environmental Defense. I want to compliment you first of all, Mr. Timms, on a really lucid, clear, balanced, and, I thought, very thoughtful rundown of one nation's attempt to address this problem.

Sitting here for the past hour and a quarter, I cannot help but be struck by the contrast between the presentations by senior officials of two countries on how they are approaching the climate change issue.

One of the statements that really surprised me by Mr. Connaughton--and I guess in the spirit of frankness, I should say a statement I found stupefying--was that he saw a high degree of consensus on the international level in climate change, and he portrayed the United States as near the center of that consensus.

Could I get you to comment on that perception of where we are at the international level of climate change?

MR. TIMMS: Well, I think in terms of the science, that's probably true. I mean, I think there is a consensus. At one stage, it looked maybe as there would be a different view being taken about the science in the U.S., with the view that's being taken elsewhere. I think since we've had the statements by the U.S. National Academy of Sciences, I think in scientific terms there is a consensus worldwide.

Where there's a difference, I think, is about what we should be doing in response, and it's certainly our view, as I've been setting out, that governments do need to address this challenge aggressively and to find ways not just of limiting the growth of emissions, but actually halting the growth of emissions and bringing them down. And it's our view that that is going to become increasingly evident right around the world that we just have to do that.

And so we think that the right thing to do is to set an ambitious goal with a long-term time horizon, say this is what we want to do over the next 50 years so that all of the actors in the economy can plan how they can deliver the changes that they need to, to bring them about in a well-planned and orderly way. And in a policy sense, that's a different view we've taken in the U.K. and Europe elsewhere from the view that's being taken in the U.S. But in our view, that's the direction that science, where there is a consensus, is pointing unequivocally to.

The gentleman there?

QUESTIONER: [inaudible] the long-term visionary strategy and the practical aspects you have here. Also, Prime Minister Blair back in 2000 was able to get the G-8 to put forward a Renewable Energy Task Force and then helped to recruit some very strong leadership to that. They came forward with a very positive kind of program. And I wondered whether there might be, since your government is probably one of the few with particularly warm relations with the U.S. Government at the moment, whether there might be a possibility of trying to get the U.S. to move somewhat significantly for some implementation,

particularly, let's say, in Afghanistan and Pakistan, where there's a huge unserved rural population lacking electricity, et cetera. That might be a very practical implementation of the G-8 task force report that was at least nominally endorsed by the various heads of government in Genoa.

MR. TIMMS: Well, I guess that's really the role that we see the REEEP-- Renewable Energy and Energy Efficiency Partnership--playing, and I've mentioned--and we've been very heartened by the fact that the U.S. has become a full partner with REEEP. And I do expect that that initiative will have quite a big impact in parts of the developing world. We're already seeing examples of quite small amounts of products funding being applied in India and China, leading to quite big private sector investments in renewable energy, and I'm absolutely sure--you're right about Pakistan and other parts of the world where we could see the same going forward. So, yes, I do think there is a very good prospect for the U.K., the U.S., and others working together in that partnership.

The other point I'd make, I guess, is that we are seeing great technology being developed in the U.S., and that's going to be very, very important for us bringing about our objectives over the next 50 years, and we will carry on, we are going to carry on working with the U.S. Government so that we can participate in the very impressive and ambitious technology efforts that are going forward in this country.

The lady in the fourth row, yes?

QUESTIONER: Hi. I'm Leslie Carruthers (ph) from the Environmental Law Institute. I wondered if you could comment briefly on the extent to which the Conservative Party, as well as the Labour Party, is behind this agenda, and also what the state of public opinion is in your country on this issue.

Thanks.

MR. TIMMS: Well, that's a very interesting question. I've had the opportunity to reflect on the first part of your question as we've been taking the energy bill through the House of Commons over the last few weeks. And as I mentioned, it concluded its committee stage in the House of Commons on Tuesday just before I left.

I mean, I think in terms of the general aspirations that we've set out, there's pretty much a consensus that that is a good thing. The Conservative Party as well expresses support for our objectives on renewable energy. The idea of having 10 percent of our electricity from renewable sources by 2010 I think is generally accepted as a good thing.

Where the difficulty sometimes arises is when one turns that into actual policy changes now, which sometimes are more controversial, and we've certainly run into controversies about wind power, where there are local campaigns, people--you know, wind turbines, after all, need to be in windy places. They sometimes tend to be rather attractive, isolated mountain areas. And, you know, there's quite often local campaigns against particular wind turbine proposals. And we have seen the Conservative Party [inaudible] expressing sympathy for those anti-wind sentiments. But the kind of generality of should we have 10 percent of our electricity from renewable sources by 2010, really there's a consensus about that.

In terms of public opinion, all of our surveys--and we do survey public opinion quite carefully--show overwhelming public support for moving in the direction that we've set out. Again, sometimes turning that overwhelming general support into support for a particular proposal in a specific area can be more of a challenge. But what's interesting on the opinion work we've done on wind power is that the people who support it most strongly of all are the people who live closest to existing wind farms. So, that is, once people have got them there, they've actually become very attached to them, but the prospect of building one is sometimes a bit scary.

Thank you very much indeed.

[Applause.]