

YES **William J. Clinton**

Global Climate Change

Thank you very much. Thank you Mr. Mayor. I'm very grateful to the City of Montreal; to the Sierra Club of Canada and my long-time friend, Elizabeth May, for inviting me here to speak today. And the Government of Canada for hosting this historic meeting on climate change.

I seem to walk into trouble every time I come to Quebec to give a speech. The last time I was here, Mr. Mayor, you remember I was here to talk about federalism right before the referendum. So, I want to try to talk about an issue that is full of controversy, but of profound importance to the future of our children and grandchildren in a way that I hope will permit all who care about this issue without regard to what specific approaches they favour to think about the facts.

I just got back from a week long trip in which I went all the way from the northernmost part of the inhabited world—I went to St. Petersburg, the largest most northernmost city on the globe—then to Kiev, Ukraine to do some of my AIDS work. And then I flew to Sri Lanka and Indonesia, where the summer is beginning, working on the Tsunami relief recovery for the United Nations. And I came back to Munich and London.

And when I was just wandering around the world, I read the following headlines: that scientists had dug more deeply than ever before into the Antarctic core and now could measure greenhouse gases—both methane and carbon dioxide—over the last 650,000 years. And the levels were markedly higher than at any point over the last 650,000 years. Now keep in mind the last ice age only receded 15,000 years ago, which enabled people to move up out of East Africa, across the world and to establish civilizations in every continent. That was when I was in Kiev I read that.

Then, I flew to Sri Lanka in the scorching heat of the early summer, and I read that 95 per cent of the glaciers in the Himalayas are melting, leading to a tripling of mudslides and other disasters from overflowing mountain lakes.

And then, as I flew back North, I read that the countries of the North Atlantic are at risk at getting markedly colder in the years ahead because of global warming, because more fresh water is flowing into the oceans and it's messing up the current rotation, and may block normal temperature changes and aggravate the winters in the North Atlantic. Those were just three little articles in six days.

At our Global Initiative, which the Mayor mentioned, in New York around the opening of the UN, we were told that insurance losses from severe weather events in the last 10 years were triple those of any previous decade in history. And I know that if the climate warms for the next 50 years at the rate of the last 10, rising sea levels in the North Atlantic will claim at least 50 feet of Manhattan Island. It might good for the value of the real estate that is left there, but it will be a very bad thing indeed. It will be a harbinger of changing of agricultural production patterns, millions of food refugees created throughout the world, intense disruptions.

There was an article the other day, Mr. Mayor, about the prospect that the North Pole might melt enough now in the summer time for people to have a sea route right across the top of the earth, and that won't raise the water level because the North Pole is all ice anyway. But it's hard to believe that the North Pole could melt without significant run off of the Ice Cap on Greenland. And if that were to happen the environmental consequences would be calamitous, indeed.

So, there is no longer any serious doubt that climate change is real, accelerating and caused by human activities. We are uncertain about how deep and the time of arrival of the consequences. But, we are quite clear that they will not be good. So, what should we do about it? Well, when I was President, I did what I could do in an atmosphere that was, to put it mildly, hostile. We took a lot of executive actions to green the White House and the executive branch of government. We applied higher efficiency standards to appliances in the United States. I sought and lost a carbon tax, and then sought and lost a 25-percent tax credit for the production or purchase of clean energy products.

But, we were active in a partnership for a new generation of vehicles with our auto manufacturers, and in the development of the Kyoto climate change accord, which in the end actually got Vice-President Gore personally involved with. It was not a perfect agreement, and there were criticisms of it at the time. The two most important of which were, first, that Kyoto would hurt the economies of the developed nations by chaining them to greenhouse gas reductions that were not achievable, and certain to lead to top down bureaucratic solutions that would wreck economic growth. The second was that Kyoto did not include developing nations which were already large greenhouse gas emitters in which given present rates of growth would become larger than even the United States, the worst offender, in the next few decades.

The second criticism was fair; the first one was just flat wrong. It was factually wrong. And we know from every passing year, we get more and more objective data that if we had a serious disciplined effort to apply on a large scale existing clean energy and energy-conservation technologies, we could meet and surpass the Kyoto targets easily in a way that would strengthen, not weaken our economies. That's the main point I came here to make.

The main point I want to make to the developed countries is that I believe if you look all around the world . . . what was the big issue in Germany in the last election? Do we have enough flexibility in the labour markets to generate enough new jobs? How can we preserve a sense of social justice? Decent pay, decent benefits, a secure retirement, a strong middle class, and

still reach out to the developing world on honourable trade terms. How can we possibly do that when we can't create new jobs?

But, if you look at the United States where we did have a couple million new jobs last year, but in the 90s, we averaged nearly three million new jobs a year, every year, partly because information technology was a source of new jobs for us. It was eight per cent of our job base, but 30 per cent of our job growth. It rifled through the whole economy. If the developed world wants to do the right thing by the developing world, and share the benefits of the future, it will require far more than reducing agricultural subsidies. It will require genuinely more open markets, a serious attempt at investment, a whole different way of thinking about this, and we will never have the political consensus to do it unless the wealthier countries can create substantial numbers of new jobs at home every year. We have not found in this decade, the answer to that.

In the United States, our unemployment rate is still quite low, but partly because we have had two per cent of the work force stop looking for jobs. That is, in our country, unemployment is a function of work force participation. So, if you're not looking for a job—even though you could work—you're not counted as unemployment. If work force participation rates were the same as they were a decade ago, the unemployment rate would be about a percent-and-a-half higher.

Every country has got this challenge. How are we going to meet it? By a serious commitment to a clean energy future, that's how. We can create jobs out of wind energy, out of solar energy, out of bio-fuels, out of hybrid engines, out of a systematic determination to change the lighting patterns, the insulation patterns, the efficiency standards of all buildings and all appliances. We could make, in America, there is no telling how many jobs we could create if we'd just made a decision that in the rebuilding of New Orleans, it could become America's first "green" city. We would restore all the wetlands, and every building would have solar cells.

Now, I say this because I think this has bearing on how we break the log jam here. You've just got to decide if you believe this or not, and if you can think you can convince anybody else of it. But, there are lots of hopeful signs here that if we decided to maximize clean energy development, maximize energy conservation technologies, maximize appropriate research, and have the best and most efficient use of old energy sources of oil and coal. If we did all of that, could we find common ground to do something before climate change makes it too late to have meetings like this? We'll have a meeting like this in 40 years on a raft somewhere if we come to Canada to meet—unless we do something.

Well, there's (sic) a lot of hopeful signs. As the Mayor said, you've got over 190 mayors committed actually to meet the Kyoto accords. Think about this: if a mayor commits to meet the Kyoto accords, what's the difference in that and a country committing? A country commits to an abstract goal. If a mayor—an executive officer—makes a commitment, the mayor, he or she has decided already you're thinking: "how in the world am I going to do this?" And, before long, you put out a list of the 20 things you're going to do. And

then you go and do it. Once you moved from the abstract to the particular, you drastically increase the level of support for whatever it is you're doing, and you occupy people in doing something they can see as positive, and good for the economy.

I take it no one in Denmark is embarrassed that they generate 20 per cent of their electricity from wind. That no one in The Philippines is ashamed that they generate 27 per cent of their electricity from geothermal. That Germany is proud to generate over 16,000 megawatts of electricity from wind. That Japan is glad that they have overtaken the United States, as has Germany, in the generation of electricity from solar cells. I think that the million (sic) people in the developing world—largely in Latin America, but other places as well—who have solar cells unconnected to central power stations on their homes, that generate enough electricity to turn on the lights and cook the food, for a monthly payment that is more or less equal to a month's supply of candles, are proud that they have that.

So, what I'd like to say is, if there is a way to bring the countries of the world together, maybe it's around treating this agenda the way you would if you were the mayor of a large city: "Here's what I am going to do!" And always know that if you aggregated these up that would actually produce the results we are trying to achieve. And it's not just the mayors in the United States. We have 11 states comprising one-third of our automobile usage who have promised to cut their carbon emissions by a third. We have other states who have promised to cut emissions from power plants.

We have an enormous number of private companies now getting into this. General Electric's Chairman Jeffrey Immelt has said that climate change technologies are going to be at the centre of his company's profit strategy in the next decade. I just built this massive presidential library and it has 308 solar cells on it. I cut my greenhouse emissions by 34 per cent. It will take me a year-and-a-half to pay for the cost of those solar cells, after which, for the remaining life of that building—conservatively another 98½ years—I get a third of my electricity for free and I will reduce my damage to my children and grandchildren's future by one third. We can all do this.

Here's the point I'm trying . . . let me just say this. We just had a major television squib on our network news last week in America showing this new solar company out in California actually spraying nano-solar technology on thin sheets of aluminium, which may revolutionize the economics all over again. But, I want to make this one simple point. I hear people all the time when I say this—this is almost 2006—look at me in a slightly patronizing tone and say: "Oh, there he goes again. He's been saying this stuff for 30 years, and everybody knows this can only be a small part of the answer. Everybody knows solar and wind could never be anything as much as oil and coal and nuclear and all that. Everybody knows that." Well, that's just not true.

If you look at the geothermal capacity of Japan alone, they could produce over half their electricity with geothermal. If you look at wind, the difference in wind and solar, and traditional energy sources is, wind and solar are more like blackberries, cell phones and flat-screen televisions—the more you use the cheaper it gets. Wind is going up to 30 per cent a year utilization—that means it

doubles every two-and-a-half years. Every time it doubles, the price drops 20 per cent. If you want the price to drop faster, increase the capacity faster.

Last year, solar cell usage—had been going up 30 per cent per year—last year, it increased 57 per cent in one year. Every time the capacity doubles, the price drops 20 per cent. America spends roughly \$180-billion (US) a year on gasoline—varies depending on the price. If we spent half of that for seven years building wind mills, then we generate more electricity from wind than any other source. It's just not true you can't take any of this to scale. It's just that we are sort of rooted in old patterns of organization and financing.

But, to make the main point, we know the capacity is there. In our country, 20 per cent of all electricity is consumed by lighting. If every home replaced every incandescent light bulb with a compact fluorescent one, which costs three times as much, lasts 10 times as long, emits one third as much greenhouse gases, every purchaser of a light bulb would save 25 to 40 per cent, no matter how many bulbs they purchased, just as long they were being used. And we would cut the greenhouse gas emissions attributable to lighting in America by 50 per cent. We could create a lot of jobs transferring the production of light bulbs from incandescent to compact fluorescent—with another new technology just over the horizon I might add.

So, I just don't believe all of this stuff about how: "well, all these things are nice to talk about, but we can't really get there." We're still wasting . . . most electric power plants waste 60 per cent of the base heat of the fuel going into them, whatever it is. You know, I saw Amery Lovens the other day at my Global Initiative—and a lot of you know him—but he's been out there saying this stuff for 30 years, and people have laughed at him for 90 per cent of his adult life. And no one's laughing anymore because we now know that conservation is good economics. Conservation creates energy just as much as alternative sources do.

After the Gulf Coast was destroyed by Katrina, I was down in a little town in Alabama talking to a bunch of shrimpers. They were African-Americans, European-Americans and Vietnamese-Americans. You know what they wanted to know? Could I get them a bio-fuel plant. Because diesel was three dollars-a-gallon, and we can make bio-fuels for a buck-and-a-half now—and we just about got it done, parenthetically.

The reason I'm saying this is not to say that these agreement don't matter. They do matter, a lot. I like the Kyoto agreement; I helped to write it, and I signed it. But, it did have the flaw of not having everybody in the world signing onto the market mechanism. And now that's largely cured; China, India, Brazil, a lot of countries are interested in participating in this. You can see the emergence of a carbon market. But, one of our states, New Mexico, has already signed on to the climate change exchange in the United States. So, there is going to be a major carbon market.

And I think it's important that we find—if we can get it—a multilateral way of going forward. If we all work together, it's hard to see how we can fail. And if we don't, it's hard to see how we can succeed. My country has four per cent of the world's population, 20 per cent of the world's GDP, and we did have, when I left office, 25 per cent of the greenhouse gases. It may be down to 23½ or 24 percent now, just because of the rapid growth in China and India.

But, the point is we've all got to find a way to do this together. And I think that if you ask yourself: why did 190 mayors agree to do this . . . who weren't all left-of-centre. Some of them were conservatives. One of the mayors in America that signed onto this Kyoto thing came from a small farming community in Nebraska, and he bragged about the fact that he was a conservative Republican who had voted for the President twice and strongly supported him. But he said: "You know, I'm a farmer, and they told me that we had to go fight terrorists on the principle of precaution." There is no place in the world where it's more important to apply the principle of precaution than in the area of climate change.

There are two big obstacles to agreement, it seems to me. One is the general observation made—more eloquently than I can make it—hundreds of years ago by Machiavelli:

There is nothing so difficult in human affairs than to change the established order of things because those who will be hurt by the change are quite certain of their loss, while those who will benefit are uncertain of their gain.

We are trying to create an enormous new world here. And that's why the more concrete examples we have of success, the more important it is. Even though it may not be as satisfying as having everyone say: "Ok, we're going to get to this level of reductions, by this date."

Second problem is the old energy economy, is well-organized, well-financed and well-connected politically. The new economy is, by and large, entrepreneurial, creative, still-undercapitalized, and the markets are not all that well-organized. Now, our Congress—and I appreciate that they adopted a new solar credit in 2005, which I thought was a good thing—but I tried for years to get a 25 per cent credit for the production or purchase of clean and alternative energy technologies, and I couldn't pass it. So, we're moving that way.

But, we have got to get people to think about how to jump start this. So, when British Petroleum adopts their new slogan, Beyond Petroleum—insofar as it is reflected in real actions—that's good. When Royal Dutch Shell finances wind mills, that's good. I think every oil country in the world ought to take some of the benefits of that 65-dollar oil, and become energy countries—not just oil countries. Why shouldn't the oil countries of the world finance the development of solar and wind power? You could do it all over the Middle East. You could start at the Equator and work out. It would be a way of generating jobs, reducing poverty, increasing development and avoiding future impacts of climate change.

So, when we did discuss at my Global Initiative, the biggest dollar commitment we had—this is very interesting—was from a large European insurance company, Swiss Re, who committed \$300-million to clean energy projects in Europe over the next few years. Why did they do that? Because they're going to go broke if global warming keeps running up the numbers of intense weather events. You can't figure out how to insure or reinsure against an unpredictable and ever-expanding number of risks. And the leader is a wise and thoughtful man, so that's how they made their commitment.

So, my plea is that we get more corporations, cities, other local governments and NGOs involved in this; that we try to go forward multi-laterally;

that we not give up on market mechanisms. This carbon market is going to take off, as long as we don't walk away from it. It's going to be an enormously successful thing and incredibly important in trying to help us deal with this, and moving big dollars around and getting big projects done.

And finally, that if we can't agree on targets, that we do what we would do if we were all mayors: we would change the terms of the game. You don't want to agree on a target, here's a hundred projects we can do. They will produce the results that the target seeks to achieve. They will be pro-free market. They will create jobs. They won't put anybody out of work. They'll give us an enormous new set of opportunities. And if all of our oil companies want to embrace them, then they can finance them, and diversify their operations, and create jobs, and make more money. And we could do the same thing in research, whether it is clean coal or hydrogen research.

I think it's important to point out—before I give up the podium here—that in a certain way, all energy is solar energy. We should never forget that in our solar system, over 98 per cent of the mass is still up there in the sun, and all the rest of us—all the people wandering around and all the planets that share the solar system with us—are one-and-a-half per cent of the mass. That we are all kept alive every day by about a billionth of that mass that escapes and comes down to Earth. A lot of which is refracted from the clouds and back into space. We are living here in literally a biological miracle. And oil and coal and oil shale—all that stuff—were just solar energy longer ago. And so, if some how we can one day figure out how to create energy the way you do when hydrogen compresses together and releases three-tenths of a per cent of its mass to do all the good that it has done, that would be wonderful.

In the meanwhile, I think it's crazy for us to play games with our children's future by not agreeing to do what manifestly we know will drastically enhance the economy as well as protect the environment. And give us a chance to share this planet together.

So I say again, if we can't agree on targets, my advice is let's all pretend that we had a job and had to do something, instead of just talking about it. Let's all pretend we had a job and had to do something! And see if we can get agreements on actions, projects: how much are we going to increase wind energy? How much are we going to increase solar energy? How much are we going to increase the efficiency of our buildings, our electricity generation, our appliances? How quick are we going to convert to new lighting? How many vehicles are we going to produce that are hybrid vehicles? And by the way, Detroit needs to stop producing hybrid vehicles that just have bigger engines and don't get any more fuel mileage. How are we going to do that? And how quickly can we do that?

Who can refuse to have that discussion? That is a discussion that will generate millions and millions of jobs in the developed world and the developing world alike. That is a discussion that just might give us a chance to give our grandchildren the same set of opportunities that most of us took for granted. You know we have a heavy obligation because we now know since the dawn of the Industrial Revolution, very few people knew that we would come to this day. But we know, we know what's happening to the climate. We have a

highly predictable set of consequences if we continue to pour greenhouse gases into the atmosphere. And we know we have an alternative that will lead us to even greater prosperity.

So, again, my plea is for us all to get together, let's try to go forward together. And if you can't agree on a target, agree on a set of projects so everybody has something to do when they get up in the morning. This is a terrible thing to paralyze ourselves, and give people an excuse, and let anybody off the hook from doing something. Let's find a way to walk away from here and walk into the future together, so that we all have something that will give our grandchildren this planet in a more prosperous and more humane way.

Thank you very much and God bless you all.

"There is no longer any serious doubt that climate change is real, accelerating, and caused by human activities. We are uncertain about how deep and the time of the arrival of the consequences. But we are quite clear they will not be good. So what shall we do about it?" U. S. President Bill Clinton

