

Renewing our Energy

**Notes for a speech by the Honourable
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Minister of the Environment**

**at the CEC meeting :
“Building the Renewable Energy Market in
North America”**

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CHECK AGAINST DELIVERY

It is quite appropriate that I should be speaking to you this evening, so soon after the Government of Canada made a commitment in the latest Speech from the Throne to “*fundamental change in the way in which we think about the environment*” and to “*build sustainable development systematically into decision making*” through a framework of economic competitiveness and environmental sustainability. I thank you for inviting me. The North American Commission for Environmental Co-operation (CEC) has the task of linking the environment and the economy as the only environmental institution created by a trade agreement.

It is altogether appropriate that our first meeting should focus on the topic of “*Building renewable energy markets in North America*”. Just as the Government of Canada intends to ensure that unprecedented growth will occur in renewable energy in this country, the CEC is launching a process of reflection on this issue. The Puebla Declaration, which the CEC made last June, signaled a clear commitment to renewable energy and this workshop is a very timely opportunity for industry, NGOs and other institutions to indicate which areas the CEC should be focusing on to meet this CEC Council commitment.

I cannot claim to be an expert, unlike those who will appear before you today. Rather, I am like all those individuals who count on renewable energies to improve their quality of life and the health of the planet. You will realize therefore that as the “citizen” Minister I am offering you the Canadian perspective on renewable energies, including our achievements, our challenges and our vision.

1. Renewable energy – a rapidly growing sector

First, let us define the subject: renewable energies include hydroelectric energy production. Other forms of renewable energy are said to be “emerging”. This evening, I will only focus on those emerging forms of renewable energy. Not that I, as a Quebecker, am indifferent to hydroelectric energy. On the contrary! But that is a rather different topic.

Canada has noted that renewable energy forms are attracting growing interest on the international stage. Canada was there when, in 2002, the World Summit on Sustainable Development agreed on a program relating to energy and sustainable development. It provided support when the United Nations declared on September 4, 2002 the urgent need “*to significantly increase renewable energy sources and to put them to work for the global energy supply*”.

Similarly, in June 2004, Canada was a participant in the Bonn Conference on Renewable Energies. At this meeting, representatives from around the world sought to speed up the development of renewable energy so that it would become one of the main energy sources for the long term.

Canada is also keeping track of all the growth currently occurring in the field of renewable energy. Let us look at the figures.

In 2002, these sources were still relatively insignificant. According to the International Energy Agency, renewable energy accounted for 13% of the world's total energy supply – compared with 35% for oil, 24% for coal, 21% for natural gas and 7% for nuclear energy. Of this 13%, however, biomass accounted for 10% and hydroelectric energy for 2%; emerging sources of renewable energy such as wind and tides provided less than 0.1% of total world supply.

However, these renewable energy sources can truly be said to be emerging. The trend over the longer term suggests that real change is occurring.

Within the OECD, the production capacity of the emerging sources of renewable energy increased by 24% between 1990 and 2002. The data for the three member countries of NAFTA are comparable with the OECD figures – an increase of 23% for Mexico, 11% for the United States and 15% for Canada.

Wind and solar energy have experienced a veritable explosion of growth in recent years. Between 1990 and 2002, wind energy capacity in the OECD increased eleven-fold and solar energy five-fold. Growth in photovoltaic solar energy was even more impressive –increasing by a factor of 29 between 1990 and 2002.

However, the growth in these emerging energy sources tends to be concentrated in a small number of countries, essentially the members of the OECD. Even within the OECD, moreover, the concentration is striking: 86% of wind energy facilities are located in Germany, Spain, Denmark and the United States. Germany has more than 40% of the OECD's total wind energy capacity.

Here again, things are changing because other countries, including the most populous, are becoming involved. Renewable energy is playing a growing role in China's energy supply and is poised to become a significant future energy source. The Chinese Government has set itself a target of providing 12 percent of its power generation capacity from renewables by 2020. A significant share of this new capacity will come from wind.

What is driving the growth in renewable energy? A number of factors are involved.

Certainly, there has been an increase in environmental awareness. Renewable energy is not totally without impact on the environment, but it is much cleaner than fossil fuels and, by definition, will not be depleted.

Technological advances mean that these energies are increasingly affordable and of lower cost, whereas the classic energy sources are experiencing the reverse phenomenon.

World energy demand will eventually exceed our ability to find new reserves of oil and gas. It is expected that demand for oil in China will increase from 5.5 million barrels per day to 11 million barrels in 2025. By that time, world production will have increased by 50% to supply those rapidly growing economies such as India, which will become major oil consumers. Economic foresight requires us to diversify our sources of energy and improve our management of them.

Then, there are the actions of governments. Motivated by these environmental and economic concerns, they are moving to increase the proportion of renewable energy in their energy supply mix. Governments are doing this by making use of economic and tax incentives.

With these factors as a backdrop, world growth in renewable energy is linked to the ability of this type of energy to compete with other energy sources. In some countries in Europe, the price of wind energy declined by a factor of three between 1985 and 1995. In the United States, the federal government has the objective of reducing the price of renewable energy through the advance of research and development.

In short, over the next several decades, thanks to their continually improving performance, their decreasing cost, and the growing recognition of their environmental, economic and social value, renewable energy technologies will grow increasingly competitive with traditional energy technologies. By the middle of the 21st Century, renewable energy, in all its forms, should be making a significant contribution to meeting energy needs. By that time, it will be very important for North America to be leading the pack rather than following in others' footsteps. Our quality of life is at stake, as well as the competitiveness of our economies and our responsibility to the planet. We should remember that while North America currently has only nine per cent of the world population, we consume 28% of world energy resources.

Let us now look at how Canada intends to play its part.

2. Making Canada a leader in renewable energy

Canada is behind most of the OECD countries in its development of emerging sources of renewable energy. Statistics Canada estimates that we obtain approximately three per cent of our electricity from emerging renewable sources. To put this into an international context, Denmark obtains 93% of its electricity from renewable sources, Holland - 64%, and the United States – 4%.

It is not hard to see the reason for this. Canada is blessed with abundant quantities of traditional energy resources – oil and gas, coal, hydro power, and uranium. As a result, our energy prices have been relatively low and we have not had the incentive to invest in emerging renewable energy sources to the extent some other countries have.

Of course, there is no iron-clad rule that jurisdictions with abundant traditional energy resources must lag behind in renewable energy. I need only point to the state of Texas, which is one of the leaders in wind energy production in the United States, or the province of Alberta, which is a leader in the same field in Canada.

In any event, Canada as a whole has now got the message and recognizes the importance of making up ground in this area. There are several good reasons for doing so. The first is the importance of renewable energy in meeting our objectives in the fight against climate change, including within the Kyoto Protocol time period of 2008-2012. Our existing renewable energy capacity has helped to avoid emissions of 4.4 megatonnes of CO₂. By increasing the portion of renewable energy to 5% of electricity generation, we could avoid emissions of about 10 megatonnes of CO₂.

A second reason is that renewable energy can significantly contribute to fighting smog and improving air quality, and therefore improving the health of Canadians.

And a third reason for moving ahead on renewables is quite simply the economic benefits. With its related industries, this sector has enormous potential for creating jobs, strengthening our industrial base and increasing our economy's ability to compete during the 21st Century. If we do not do this, we could well be sidelined by the other economic powers that make full use of this industrial strategy. For example, it is estimated that at the present time, Germany has created 35,000 jobs solely through its wind energy industry.

In taking a major step forward into the world of emerging renewable energy, Canada can build on some significant natural advantages. In particular, we have vast wind energy potential, as a national wind mapping exercise carried out by my department has shown. What is more, this immense wind energy potential is fully compatible with a hydroelectric sector that is exceptionally well developed in this country.

We are already gaining ground thanks to initiatives such as the Wind Power Production Incentive. This \$260 million program will offer financial support to create 1,000 megawatts in additional production capacity between 2002 and 2007.

The Government of Canada has already agreed to purchase 20% of its electricity from renewable sources, including wind, starting in 2005. We are investing \$78 million in ethanol production, which will result in the construction of seven new plants and increase our annual production by 750 million litres.

According to the Canadian Wind Energy Association, in the year to date 2004, Canada has enjoyed the third largest increase in wind energy production in the world. Yes, Canada intends to make up the gap that now exists; but, in order to do so, we will need to redouble our efforts.

We firmly intend to go much further, and make Canada a leader in the world of renewable energy just as we are in traditional forms of energy.

Last week, I had the pleasure of announcing the launch of a national wind energy atlas, the accuracy of which is unparalleled anywhere in the world. As a result, we will be able to identify where to place Canadian wind energy facilities in order to obtain maximum efficiency.

The latest Speech from the Throne commits the Government of Canada to quadrupling the size of the Wind Power Production Incentive, and this will provide us with 4,000 megawatts of electricity over the next 10 years. Through this Incentive, the federal government is sending a message to our provincial partners and the private sector that we have confidence in this source of energy. With their full participation, we could achieve the 10,000 megawatt objective set by the Canadian Wind Energy Association by 2010. Wind energy could then account for approximately 7.4 per cent of our total electricity production capacity.

In my own province, the Government of Quebec has been at the head of the class on wind energy thanks to its commitment to deploy 1,000 megawatts by 2012 on the Gaspé Peninsula, with eight wind farm contracts awarded to Cartier Wind Energy and Northland Power. This program will mean \$1 billion in spin-offs in the Gaspé region and Matane regional county municipality and \$300 million elsewhere in Quebec. In total, the program will generate \$1.9 billion in investments, some 360 permanent local jobs will be created, and several hundred people will be hired to build and maintain the regional power system. The Quebec Minister of the Environment, Mr. Thomas Mulcair, may tell you more about these developments when he delivers the closing address tomorrow.

Alberta has also shown a great deal of leadership by investing in wind energy projects. Southern Alberta now has the ability to generate 145 megawatts of energy from wind.

In addition to wind, however, Canada plans to focus on other emerging sources of renewable energy such as solar, geothermal or biomass. In the most recent Speech from the Throne, the Government of Canada proposed to *“encourage increased production and use of clean, renewable energy and to promote greater energy efficiency”*.

The Government of Canada has also committed to promote the commercialization of the best cutting-edge environmental technologies: *“Major investments funded out of the proceeds of the sale of the Government’s Petro-Canada shares will support their development and deployment.”* Too many good ideas are lost before they reach the final marketable stage. The full potential of technological innovations must be realized. Both our environment and our economy will benefit from this.

The Canadian Council of Energy Ministers is currently working to devise strategies and standards to develop the full potential of renewables and to maximize their use by Canadians.

The private sector is also increasing its commitment to the development of renewable energy. I need only refer to Suncor’s investment of \$100 million as part of the Corporate Strategy on Climate Change, and also TransAlta, which is now the largest supplier of wind energy in Canada following its acquisition of Vision Quest.

In fact, the Energy Dialogue Group, a Canadian coalition of 17 important energy industry associations including the fossil fuel, nuclear, hydro and other sources, has identified renewable energy as a critical part of their sector’s future competitiveness. Another group of industry and NGOs have united to form the Clean Air Renewable Energy Coalition in order to further the needed dialogue on additional steps to promote emerging renewable energy development.

All of Canada is mobilizing. And when this country works together, it succeeds.

Conclusion

Canada has already shown that, in terms of energy, it could make an impossible dream become reality. When the Athabaska Tar Sands were discovered in the 1960s, there was no technology by which they could be exploited. The project made no economic sense at that time. Years of effort, research and funding made it possible to make this once impossible project a prosperous industry from which the whole of Canada benefits.

Yes, Canada is rich in fossil energy sources: oil, natural gas, uranium, and coal. We shall need these energy sources for a long time to come. We must learn to produce our energy much more cleanly and to use it more responsibly - in a way that does not worsen the conditions of our climate or the quality of our air.

But Canada also has immense potential for renewable energy, including emerging energy sources. It needs to develop an energy strategy that includes strategic measures geared to the development, commercialization and deployment of our renewable energy potential.

I have already launched a dialogue with my counterparts in the provinces and territories, with industry and with NGOs to determine how we can best set environmental targets together and best combine scientific activity, incentive programs and legislative mechanisms.

By focusing on renewable energy, we are also engaging in Pascal's wager – we have everything to gain and nothing to lose. The cost of fossil fuels will climb in the long term whereas the wind, the sun, and the water, the “renewable fuels” are – by definition — free. In the long term, renewable energy will be as beneficial to our environment as it is to our economy.

That is what I wished to say today as a “citizen” Minister. I shall follow the results of your discussions and the future activities of the Commission for Environmental Cooperation with a great deal of interest, because I know what a great help the CEC can be to the three countries of NAFTA – the three Amigos – in cleaning up their environments and strengthening their economies.

Thank you.