## Hon. Richard Neufeld, Minister of Energy, Mines and Petroleum Resources

## International Energy Agency's Implementing Agreement on Ocean Energy Systems May 1, 2006

Those of you that are not from British Columbia, from around the world, welcome to the best place on earth to live – British Columbia. You can tell by just a slight peek out of the window over there that we enjoy a pretty marvellous part of the planet here in B.C. and we all appreciate it very much.

There are a lot of exciting things happening in the ministry of Energy, Mines and Petroleum Resources. I often comment about the ministry. It's small, operates on a pretty tight budget. We have about 272 people, I believe, who work in the ministry. I have a budget that's on paper for over \$70 million, but most of that's to subsidize those folks on Vancouver Island that I always love talking about, coming from the Peace country, but a budget of about \$43 million.

And we are responsible for all energy. That's electrical, B.C. Hydro, BC Transmission Corporation, Columbia Power Corporation, the development of new energy — also all the oil and gas developments in the province of British Columbia and all the mining development in the province of British Columbia. And right about now I can tell you that all of those are hitting on all eight cylinders and actually going along very well, which we're pretty proud of.

I want to tell you that as an advocate for oil and gas, also, that the Minister of Finance is quite an advocate for more oil and gas. She knows where the money comes from, and it happened to be about \$3 billion last year in the province of British Columbia, and that's pretty significant. In fact, it's about 10 percent of our total budget. That's an awful lot of money, an awful lot of services. That doesn't mean that we don't advocate and work for other forms of energy also. I mean, it's all part of the energy world.

I want to also thank Janice from the ministry and the alternative energy branch for the hard work that she's done in helping organize this executive committee meeting and the ocean renewable energy symposium. I think Janice deserves our appreciation.

Let me tell you. When I first met her a number of years ago in the ministry, I could tell she had her heart in alternative energy big-time and has certainly brought that definition home in the ministry, which is great, and it's good to have those kind of people working for the government of British Columbia. We're pretty proud, and we're pretty lucky to have those kinds of people working on behalf of all British Columbians. And in fact the people that are from Hydro, BCTC, we thank you, too. It's great to have all of you.

The Premier sends his best wishes and wants to welcome you to what you see out the window: the beautiful west coast of British Columbia. It's a great place to be, and the

weather's good today. That's a provincial responsibility. I always say when the weather is lousy it's a federal job. Right now it's pretty nice, so I think we'll take credit.

We're proud of our mountains, our rivers and our forests, and we're proud of the natural resources which continue to fuel our economy. We're also proud of the abundant alternative energy resources of British Columbia and the extent of ocean energy opportunities here waiting to be advanced.

There are a lot of good things happening these days in the province, whether it's oil and gas, mining, electricity or alternative energy. As I said earlier, it's a great place to live; it's a great place to raise a family. And it's a great place for investors. In fact, one gentleman talked to me about investment missions, and I talked about missions that we've had for mining around the world. We do have to get around the world and start talking about all of the opportunities that are here in the province of British Columbia and not just single out some, because there are huge opportunities.

I'd live no other place. In fact, there's a young lady in the crowd that talked to me about California. California's nice too, I guess. She's now living in Ireland, and when I asked her when she is going back to California, she just looked at me longingly and said: [when I can convince] my husband.

I want to just talk a little bit about where I come from, so you can put it in a bit of context of the vastness of British Columbia, for those of you that don't live here.

I come from a part of the province of British Columbia .... I live in a community called Fort St. John. It's a community of about 18,000 people. It's where about 35 per cent of our hydroelectricity is generated in the province from two large dams — in fact, one of them the largest dam in the province. It's about a 2,800-megawatt plant, so it's a pretty huge plant. And all of the oil and gas that is produced in the province of British Columbia comes from that part of the world. It's known as the northeastern part of B.C., and it's a part that's east of the Rockies.

I don't know if you can envision the Rockies coming north of the border between Alberta and British Columbia and then they head off to the west. Actually that part of British Columbia is in the Western Sedimentary Basin. It's a part in the northeastern area of the province, and it's the only part of British Columbia that's east of the Rockies. Everything else is west of the Rockies.

The constituency that I represent, Peace River North, is the second-largest in British Columbia in land mass. So get this. It's four times larger than Switzerland — this is just the constituency I represent — half the size of Italy. In fact, it is just a touch smaller than Washington State. Now, Washington State has just over 4 million people. In the constituency where I live in northeastern British Columbia there are about 65,000 people. So it's pretty remote, but let me tell you it's a great place to be and to come from, and I love it.

We are Canada's second-largest natural gas producer at about 1.1 trillion cubic feet a year. A big portion of that is consumed in British Columbia. Some is exported to eastern Canada and some to the United States. We are the only jurisdiction in Canada that is increasing its production at the same time as it is increasing established reserves. That's remarkable when you think about the Western Sedimentary Basin, and it tells you it's under-explored and has been under-explored for a long time, and we're trying to change that. We expect oil and gas exploration in northeast B.C. will increase as much as 20 percent this year over last.

The good news applies to mining as well. Thanks to innovative and forward-looking government policy, mining is experiencing a transformation in this province like no other. We have over 20 advanced mining exploration projects underway and 650 exploration projects which all provide well over 10,000 well-paying jobs across the province of British Columbia.

We are a government that understands the globally competitive business environment and also encourages responsible, sustainable resource development, whether it's oil and gas, mining or electricity. British Columbia has a reputation for being a reliable and environmentally responsible energy supplier in North America. We are known for our B.C. clean electricity. We are also well known for the enviable fact that we have the third-lowest rates for electricity in all of North America that has helped us attract large industry to the province and the ensuing jobs. Ninety per cent of our electricity comes from clean sources, most of which is hydro-generated.

The W.A.C. Bennett dam on the Peace River was built in the 1960s, in the late sixties, and at that time it was the largest earth-filled dam in the world. We also have dams on the Columbia River which give us the capacity for multiyear storage. This flexibility allows B.C. Hydro to respond to daily and seasonal demands and opportunities in on-peak and off-peak sales.

Our electricity rates are regulated by a utility commission, arm's length from government and based upon costed service, not on market prices. In addition to hydroelectricity, B.C. has also made alternative energy a large part of its strategy to meet our needs for clean, reliable and secure energy to be provided in the province by independent power producers.

This last December B.C. Hydro, the Crown corporation that provides almost all of the electricity in the province, issued a call for power, and the response to this call was made public recently. There were bids for 53 separate projects from 37 different independent power producers. The projects submitted included electricity generation from both small and large facilities, and they include hydro, wind, biomass and coal resources. The strong response from the private sector developers reflect their confidence in using a wide range of technology to apply to the abundant resources in many areas across the province.

What about ocean energy in British Columbia, you may be wondering. A number of companies operating in British Columbia have pursued the goal of providing power

derived from renewable ocean energy over several years. In the past, B.C. Hydro has looked at the feasibility of using wave and tidal current energy in the province and developed related resource maps which are available to industry and the public.

Over the last few years a few key proponents of ocean renewable energy, including representatives from B.C. Hydro's Powertech Labs who are represented here tonight, the B.C. Innovation Council and my ministry brought together the provincial and federal governments, academic institutions, researchers, research and development support organizations and industry to form a cluster needed to push forward the British Columbia and Canadian ocean energy potential. This cluster is known as OREG, the Ocean Renewable Group, familiar to all of you here as one of the founding members Gouri Bhuyan represents Canada at the executive committee of the International Energy Agency Implementing Agreement on ocean energy systems.

We are very pleased to have Janice participate in OREG since its inception, and we have contributed \$187,000 in funding for environmental monitoring and data collection equipment to support the Race Rocks tidal energy demonstration project which, as I understand, you'll be visiting on Wednesday which will be British Columbia's first tidal power demonstration project. That comes together with the private sector and with government and with the university, and I think that bodes well for us here in B.C.

The project is still under construction but is well worth visiting, and we're very excited about it. It's a wonderful example of collaboration amongst academia, industry and government. Project members include Lester B. Pearson College of the Pacific, EnCana Corporation, a large oil and gas corporation in Canada, and Clean Current Power Systems Incorporated.

As I mentioned earlier, the government's contribution of \$187,000 for environmental monitoring equipment along with, I'm happy to announce, we have just contributed another \$100,000 to Pearson College, this time for a solar photovoltaic energy project that will help eliminate the use of fossil fuels on these ecologically sensitive islands.

I also want to highlight your trip to the Institute of Ocean Sciences on Wednesday morning. The institute is located just outside of Victoria in a town called Sidney. It is part of a network of nine major scientific facilities located across Canada and operated by the federal government. It is home to scientists, technicians, support staff and ships' crews who are always resident in B.C.'s coastal waters and the western Arctic.

Coming back to the importance of ocean renewable energy, we are part of a public and private organization called the Pacific Northwest Economic Region, more commonly known as PNWER. It is a Canadian and American organization formed by a British Columbia-Canada participant, British Columbia, Alberta and the Yukon Territory and the American states of Alaska, Oregon, Montana, Idaho and Washington. Its primary goal is to increase the economic well-being and quality of life for all citizens of the region.

In 2004 the U.S. governors and Canadian Premiers involved with PNWER recognized the opportunities for ocean renewable energy in the Pacific Northwest, and they adopted resolutions to work to advance ocean renewable energy with their respective federal governments. We have a full range of excellent power technologies and renewable energy resources and know-how in British Columbia.

We also have market leaders in emerging companies in a number of smart and sustainable power technology areas: hydrogen and fuel cells, natural gas and electric hybrid engines, biomass energy resources, smart grid and power measurement and small and micro hydro.

You may have heard about the up and coming hydrogen highway to be in place for the Winter Olympics in 2010. I invite all of you folks not living in British Columbia to make sure you're back here for the Olympics and Paralympic Games. It'll be a great time in Vancouver-Whistler.

The hydrogen highway is the first of its kind, a hydrogen fuelling infrastructure for hydrogen vehicles which will travel along the corridor that starts in Sidney and ends up in Whistler. As usual, in innovative technology like fuel cells or ocean energy technology it takes a while to develop a critical mass of expertise and awareness. It takes time to stimulate demand for the technology and open doors for international partnerships. Already B.C.'s power technology sector includes more than 60 companies providing over 3,000 jobs which create about \$700 million in annual revenues. We need that kind of diversity when it comes to meeting the increasing and varied energy needs of our province.

Last fall I had the pleasure of visiting an international power monitoring and control company based just outside of Victoria. A few years ago they started out with the name of Power Measurement and a handful of staff and are now part of the global Schneider Electric name, shipping Power Measurement technology around the world.

I've also visited a world-leading solar energy technology company based in Victoria by the name of Carmanah Technologies. They design and manufacture solar-powered LED lighting for marine, aviation, transit, roadway and industrial applications. And there's Xantrex Technologies based here in Vancouver. They develop, manufacture and market advanced power electronic products and systems that convert raw electrical power into high-quality power needed for electronics and electric equipment.

Then there's our biomass energy sector. British Columbia has enormous forest resources, and we currently use wood residue for electricity production and cogeneration. Last year British Columbia produced over 500,000 tonnes of wood pellets, and 90 per cent of that was exported to European power producers, so some of you may already be employing some of B.C.'s green energy.

As you can see, the resources and the intellectual capital that exists in British Columbia are valuable in advancing alternative energy technology for our domestic needs and that of the world.

Looking ahead, we need to think about energy in a much larger sense, in the sense of where will we be in 10, 20, 50 years out. We need to focus on how to guarantee a secure and reliable supply while keeping in mind that we want to conserve and protect what we have and enhance our quality of life and the natural environment. It's important to start making the important and tough decisions now in order to meet future demands, because it takes many years to build the infrastructure to ensure adequate power.

In conclusion, we all know that British Columbia is resource-rich, competitive and connected to investment opportunities and training programs. The British Columbia government has created an 'open for business' climate. I can't say this enough. We are a vast, large province that still has a lot of room to grow, as I mentioned earlier in my speech, and to diversify, just waiting for pioneers like you.

I hope you enjoy your stay here in the beautiful province, and I wish you success in every one of your endeavours.

Thank you.