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The Economics of Energy and the Environment: Introduction

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THE ECONOMICS OF ENERGY AND THE ENVIRONMENT

Introduction – David Runnals†

Well, good morning, fellow masochists and conscientious churchgoers.¹ The four of us are all newcomers here; we have not been to this conference before. I just wanted, Henry, to express our thanks to you for inviting us here and your extraordinary courtesy and the courtesy of your colleagues in making us feel welcome. I found this to be a very stimulating two or three days. I do this sort of stuff for a living, and occasionally I come to meetings and doze because I have heard it all before, but at this meeting I have heard many things I have not seen discussed before, and I think that is a real credit to you and the organizers.

I should add that I was, sort of, strong-armed into this by Jonathan Fried, one of Henry’s colleagues-in-arms at the Department of Finance Canada. Jonathan told me that I had to go; this is a very important conference and a very important organization. Jonathan then said that he was not going to be able to attend.

So I thought oh, okay. So I called Henry, and he said, well, you have to come. We placed you in an extremely prominent position. You are going to be chairing the wrap-up session. He did not add when it was going to be and what time it was going to start. I discovered that when I received the program, and so we were making jokes about how large the phone booth would be that we could meet in this morning. I congratulate you all for being here.

This panel is going to deal largely with the relationship between economics and energy, although I am going to ask Steve Charnovitz if he will say a little bit about the current state of the debate on trade and environment, which has come up a couple of times in our discussions, on which he really is one of the world’s leading experts. However, we are going to talk mostly about economics of energy and the environment – the “dismal science” meets the Energizer bunny.

As you gathered from the first couple of days, Canada is a treasure trove of energy resources. David Luff² and Bob Page³ and others showed graphs

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¹ At the time it was said, it was Sunday morning at 8:30 AM.
and other estimates of oil and gas reserves, coal reserves, and the large quantities of coal-bed methane, which exists primarily in British Columbia and Alberta and is, as yet, an unexploited resources. The positive note is that, for those of us who are in the energy business, the economics of resource exploitation are going in our direction. The cost of exploration and drilling for a barrel of oil has actually gone down, as one has moved into the frontier, which no one expected. The Hibernia Platform, the large offshore platform off the shore of Newfoundland, cost something like $5 billion to build. It was the largest manmade structure in the world at its time. Its successor platform for another field is technologically far less complicated, and cost less than $700 million to build. This is, basically, a major technological change in the way in which these fields are operated.

When I was a kid, my father was in the oil business, and he always told me the best way to lose your fortune in the oil business was to get involved with the tar sands, which was a "tar baby." We have now advanced to the point where tar sands are profitable at about CAN$15 a barrel, so these resources are now on-stream, they are available, and they are affordable. There are still unexploited hydro reserves, largely in Quebec, but they also exist in Manitoba, where my institute is located.

We heard from David Manning and David Drinkwater about the distribution problems in both Canada and the United States. There are unexploited reserves that can be tapped, and as Bob Page pointed out, Alberta and British Columbia have some of the largest reserves of cheap, low-sulfur coal in the world. If you add that together with the post-September the 11th energy security concerns in the United States, we look pretty good, but there is a cautionary tale here, and I take you back to the opening remarks by Frank Loy and Alan Nymark. I have been doing environmental work for most of my life and I have never seen an area that is more driven by the science. Virtually ever major environmental policy decision over the last 20 years has been driven by science. We are now at the stage where we have a very deep scientific consensus on the reality of climate change. We are headed into a carbon-constrained future. Whether Canada ratifies Kyoto or not, both Canada and the United States will, in the foreseeable future, have to deal with a carbon-constrained future, and this is

where the economics of energy will change. You may hear from our panelists in some way how they think it will change.

Yesterday, we looked at many ascending curves for energy use, for CO\textsubscript{2} production and so on. I would submit to you that those are going to level off; the Shell scenarios that David Jhirad\textsuperscript{7} was talking about show them leveling off at sometime in the next 30 or 40 years. At that time, the economics of energy will have changed, and I am sure our panelists will address that.

I just have two other questions which came to me during what I thought was a very interesting discussion about the deregulation of the electricity sector. I have never understood it before; now I do. One, what happens to things like the demand-site management and conservation when you separate out generation and distribution? Two, what happens with things like R&D for renewable energy and non-carbon energy solutions? There is an interesting menu of options that people can explore.

I will start with Steve Charnovitz, who is an old friend and colleague in the business of trade and the environment. Steve has to be the most prolific writer on this subject I have ever seen. For years, he has written articles in legal journals about the relationship between trade and the environment.\textsuperscript{8} One day he came along and announced he was going to step down for a while because he was going to law school. We all thought he already was a lawyer. He has had an interesting career. Steve was a legislative assistant in the House of Representatives, the policy director of the Competitiveness Policy Council. He has been involved with the global environment trade study, GETS. Two years ago, Steve completed his J.D. from Yale Law School, and is now an attorney with Wilmer, Cutler & Pickering in Washington. I do not know when he practices law, because he has still continued to write prolifically on the subject of trade and environment. Steve is going to talk about energy and economics, but I have asked him if he will reflect on the state of both trade and environment and how that relates to the new WTO round.

John Sargent is the head of Canada's effort to develop a domestic emissions trading regime, and I think there is a general consensus that if we do ratify Kyoto, his work will be an essential part of the implementation strategy. An economist by trade, John has spent most of his career in public service in the Department of Finance. He has served with distinction as a tax expert, and as Assistant Deputy Minister of Tax Policy.

Mike Cleland is currently the Senior Vice President for Government Affairs at the Canadian Electricity Association. I am one of those Canadians who has lived in the United States for a while and came back in 1988, and I


\textsuperscript{8} Charnovitz has written or coauthored at least 30 articles in law reviews, dating back to 1993.
met Mike that year. That was the year I was charged with trying to help produce the first binational State of the Great Lakes Environment Report. Mike was on our advisory panel; at that time, he was at the Department of Finance. He was the economist who kept us honest and made sure the Greenies did not make too many unrealistic assumptions about the relationship between economics and the environment. Mike then went on to become, essentially, Canada’s senior energy official. He was the Assistant Deputy Minister for Energy in Natural Resources Canada, where he was charged with energy policy during the negotiations over the Framework Convention on Climate Change and subsequently the Kyoto Protocol. He has been very active in debates about electricity deregulation, fuel choices, and about the whole question of Kyoto ratification.