

The Empire Club Presents

THE HONOURABLE GLEN MURRAY MINISTER OF THE ENVIRONMENT AND CLIMATE CHANGE:

November 5, 2015

Welcome Address by Dr. Gordon McIvor, President, Empire Club of Canada

Good afternoon, ladies and gentlemen. From the Sheraton Centre Hotel in downtown Toronto, welcome, to the 112th season of the Empire Club of Canada. For those of you just joining us through either our webcast, our podcast, or Rogers Television, welcome, to our meeting. Now, before our distinguished speaker is introduced today, it gives me great pleasure to introduce to you our head table guests.

HEAD TABLE:

Guest Speaker:

Honourable Glen Murray, Minister of the Environment and Climate Change

Guests:

Ms. Tina Arvanitis, Vice President, Government Relations and Communications, Ontario Energy Association; Director, Empire Club of Canada

Mr. Steve Baker, President, Union Gas Limited; Past Chair and Director, Ontario Energy Association

Mr. Karim Bardeesy, Deputy Principal Secretary, Office of the Premier of Ontario

Mr. Bob Huggard, President and CEO, Ontario Energy Association

Dr. Gordon McIvor, Executive Director, National Executive Forum on Public

Property; President Empire Club of Canada
Mr. Norm Ryckman, Director, Market Development and Sales, Enbridge Gas Distribution
Mr. Tim Smitheman, Director, Ontario Energy Association; Senior Manager, Communications, Government and Public Relations, Samsung Renewable Energy Inc; Second Vice President, Empire Club of Canada
Mr. Johannes Soer, Founder, Global Fruit
Mr. Michael Southern, Manager, Government Relations, Suncor Energy
Mr. Lloyd Switzer, Senior Vice President, Network Transformation, TELUS

We have a group of students joining us today from Centennial College. Welcome, to the Empire Club.

Now, ladies and gentlemen, to introduce our guest speaker, please, welcome Mr. Bob Huggard, the President of the Ontario Energy Association.

Introduction by Bob Huggard, President, Ontario Energy Association

Thank you, Gord, and, good afternoon, everyone. The OEA is pleased to be a co-presenter of today's program, and so it is my privilege to introduce our keynote speaker, the Honourable Glen Murray.

In April, Premier Kathleen Wynne announced that her government wanted to take action on greenhouse gas emissions and added the responsibility of climate change to the Ministry of the Environment. She asked Minister Glen Murray to find a way to meet the province's emissions reduction targets through the design of a cap-and-trade sys-

tem. I am sure we will all agree that the Minister has been given a tough job, yet he continues to impress us with his enthusiasm in the face of balancing a wide range of stakeholder interests. As President Lyndon Johnson once said, "When the burdens of the presidency seem unusually heavy, I always remind myself it could be worse. I could be a mayor"—a job title that the minister knows well.

For those of you who do not know, Minister Murray served as the mayor of Winnipeg from 1998–2004, so he may have a very good perspective on this quote. To cut down the amount of time that we have in introductions, I would like to say that this afternoon, Minister Murray provides us with a preview of his plan and will detail how Ontario will build on his actions to fight climate change and help to ensure that future generations are left with a healthy and prosperous province. So without further ado, would you, please, join me in welcoming Minister Murray to the stage.

The Honourable Glen Murray

Well, I guess it is good afternoon, now, eh? Thank you very much for coming out, Bob. Thank you to the Ontario Energy Association and our other sponsors for the great work you do. We are blessed in this province with such a skilled industry and environmental groups and businesses, which makes my job a lot easier than it would be without you. And this is a shared challenge, a shared responsibility and many

opportunities for us to share together, and we are greatly appreciative for your leadership and some of the very difficult things we need to deal with.

I just want to recognize a few folks: Glen Tebow, I think, is right over there. My dear friend, our birthdays are three days apart, and he is working very closely on northern issues on climate change and working with forestry mining and on infrastructure in the north so, please, do buttonhole him for that. We also have a working group ably lead by my dear friend John Godfrey who is here. There are also a few other members here: John McCabe, Katie Sullivan and Lisa DeMarco—remarkable people who are giving us some extraordinary amount of time. I would just like to—if they just want to stand up; they are there to be buttonholed, too, because they are helping facilitate, so if those folks would stand up that would be great.

And since we last met, we have a new Minister of the Environment and Climate Change, federally, which is very exciting. And, as you know, Premier Wynne has built very strong relationships with Prime Minister Trudeau and with Premier Couillard—somewhat legendary and probably one of the strongest federalist partnerships we have seen in many, many years.

And then I did not know who Catherine McKenna was. I sort of knew her from afar—her reputation. And I had discovered that everyone who knows me seems to know her and vice versa, and within about five minutes of the ap-

pointment, I had my Twitter account filled up, my emails filled up and my texts. And my roommate from university who actually was one of her key campaign workers said, “This is gonna be trouble; you two are, like, over the top enthusiastic about this. You’re gonna love each other.” So I am very excited about that, and we have a new federal minister who is very, very, very engaged when we have gone for a decade without conversations between provincial and federal ministers on this topic. This is going to be a hopeful new beginning, which I am very excited about, and I want to thank Catherine and congratulate her.

I am going to make sure we have some good time for questions, but I have got a few key things that I want to explain. Some of them may seem a little unusual, and I have been watching my friend Christiana Figueres speak on these things, and she spoke here recently in Toronto. She and I often talk about how to do two things: Explain the gravity of the situation we are facing, which is very serious, and give some context to what that actually is so we understand it—but not understand it in a way to be dispirited or to be in despair but to be highly motivated about the incredible possibilities that come with the opportunities of what John Kerry and the U.S State Department outlined as a \$6-trillion expansion of the western economy. And so the opportunities of a low-carbon economy are huge; they are also the way we save ourselves from a very difficult situation.

I have until the end of this year to get the climate

strategy out—and the cap-and-trade system. The premier has given a great deal of confidence in me, and I have a great deal of confidence in her, and that relationship is very important. But she and I would both tell you that it is our relationship with you that is the most critical in this process, and we have had a lot of time in the last year for consultation. As the cap-and-trade design process now goes into full consultation, you will get even more of my time and attention because we really need to do this with you and not *to* you.

But I do just want to spend some time on the problem because I have realized that, to understand the context for action, you have to understand or at least agree on the problem. And Dalton McGuinty always used to ask ministers—Karim Bardeesy and I have been through this before—“To what is the presumed problem that this is the solution that you’re proposing, Minister?” I think it is important to have context because if we do not define the problem together and understand the implications of it, it is hard for us to act in unison. So I want to take you through a few things about what we mean by this.

Right now, we are experiencing the carbon dioxide impacts from when I was in elementary school in the 1960s, okay? So this is old carbon dioxide; this is stuff that cycles through 50- to 100-year cycling, depending on a number of factors. The 400 parts per million of carbon dioxide that arrived on our doorsteps last year of which put us past that

400 parts per million which is the danger zone will not cycle through for another 30, 40, 50, 60, 70 years depending on a whole bunch of other factors. Part of the challenge we have is that we are locked into some significant risks over the longer time. What I am talking about right now is what is happening in 2015. In the back of your mind, recognize that this is 50-year-old plus carbon dioxide emissions that are now just impacting on climate.

In 1979, our Arctic had a very full ice cap; that would be close to normal. By 2014, you could see about 40% of it is gone, and this is hugely consequential because of the role that the Arctic plays in the global climate system, the jet stream, the reflective power to keep our planet cool, its impact of ice and ice melts on oceans and ocean circulation, levels of acidity in the ocean, the seasons—I will come to that in a moment—and also the amount of methane and methyl-hydrates that are up in the Arctic. If they were released, there would be a pretty irreversible problem and an existential crisis. So we focus heavily on the Arctic. We sometimes think of the Arctic as something far away, a place that we have never been, a place where polar bears are having difficulty. We do not personalize the Arctic as having real impact on it and the fact that it is more consequential.

This is from Cornell University. On the right hand side of the screen is the typical polar vortex where for most of our lives that is the compact jet stream that sits about

30,000 feet above the Arctic and contains cold weather up there. It is the temperature differential between the Arctic and the equatorial area that actually manages the jet stream, manages the change of our seasons and manages the stability of the climate that allows things like pollination, germination, and all the things we rely on. It is the interaction of these things—more than it is Florida being under water or some of the things that you read about—that we are most concerned about. This is the work that we are doing with California and Quebec—we are looking at the critical adaptations around food and water security and those kinds of things.

But you can see in 2012 and 2013 how distorted that polar vortex was. Those large cold areas are breaking up. This is based on current levels which is an Arctic that is impacted by a temperature change from preindustrial levels by about 1.7 degrees. So you can see just that small temperature change has had a dramatic impact on the most important piece of the earth's climate system. Understanding that, it is very hard for us to change with a 7-degree to 8-degree warmer Arctic by 2050. You can imagine the implications of an Arctic at 7 or 8 degrees warmer. And this is the thing that keeps most of us up at night, the case for urgency. It is already showing different kinds of impacts, and you have experienced them probably in your own life and in the newspapers. This is it, so it can mean all kinds of things. So North America last year was the hottest—2015 was our

hottest year as a continent. But you know from the winters that we have had, that we have had some of the coldest and wettest Februarys and Marches. And you can see that because it is basically leakage from the polar vortex. Part of the destabilization of it means that three quarters of North America is parched and dry; our quarter is cold and wet. So you can see the extreme nature of this and the destabilization and the incredibly disruptive nature within a continent and within seasons that makes it very hard for us to live on this planet as this gets more extremely disruptive.

We sometimes are not very literate about what climate impacts are or know how to look at them. And the Canadian media has not carried this with the same depth as the European and the American media. I read the *Washington Post*, and I read the *New York Times* a lot because their climate change coverage has been really good. The Pentagon and the U.S Department of Defense had come out with a series of analyses about what happened in Syria and about the different events there and how we have a refugee problem there. Please, go look at these articles because they are quite interesting—the Pentagon Report

In 2006, we started with the worst drought in the history of the region. And that drought, you can see, caused somewhere between a 60% and 80% crop failure. That led to somewhere between about 1.2 million and 1.6 million middle-class farmers losing their farms and the collapse of domestic food production. That caused those farmers, by

2011, basically to become a refugee under class in homes and in Damascus and in large cities, the study done by the U.S. State Department showed. And it was at that time that the Pentagon was saying that Syria was immune to the Arab spring, that it was not happening there. And, you can never say that this is absolutely 100% only caused by climate, the drought; and you certainly cannot say the drought was the cause of what happened there, but these were all significant factors that led to destabilization of that and what came after. And then the Assad regime for many, many reasons destabilized, and then ISIS. And we now are at war. We have had fighter pilots over there. Turkey and the Kurds are fighting each other; Russia is in there fighting all the enemies of the Assad regime; the Assad regime is fighting the rebels. And it is one of the worst conflicts in the world that is leading to one of the worst and difficult migrations which was an issue in our last election. These are the kinds of things that, when we talk about severe droughts, will become more common—not that these things are happening only because of climate change, but they are happening more frequently. And if you go to that same latitude around the world, you will start to understand how these things come home to us already on 1960s emissions levels.

These are California's drought maps since 2011 to this past year. You can see it is abnormally dry, which is a significant problem. I think the exceptional drought is actually a recent one that they added. I mean Governor Brown

actually said to me, "They've run out of adjectives to describe how bad the drought is." This is a 40-year drought cycle that NASA has projected—there has never ever been a 40-year projection before. They have not had it. And why 40 and not 39 or 42? It is because NASA does not project that far. And, for climate stability and for Ontarians, that is 34% of the food production in Canada and the United States that we rely on as a winter country particularly of concern for us. And they estimate that for most of the major vegetables we eat, about 50% of the vegetables—the broccoli and healthy things we eat—come from California on the vegetable side. So you can appreciate that in real time. As this becomes a more difficult challenge going forward, food security and water security is a top agenda item when I meet with my counterparts in California.

We cannot keep going down this road. We have got to pull back, and we have got to look at where our emissions come from. So industry is 28% of our emissions, and they are coming down. Our industries are mostly below 1990 levels, and we are very proud of the leadership and the work that you have done. You are world leaders in that, and we have had success already, so we are optimistic about the innovation capacity of our economy.

The other place is electricity, and, as you know, we are very proud as a government to have closed coal plants and introduced the Green Energy Act and electric vehicle incentives. The government has worked very hard as you

have and alongside with you, learning from you reciprocally in seeing net reductions in both the industry and transportation sector. Now, we are no longer a pre-coal climate change group; we have joined the post-coal group because we do not have coal, and there is a big difference. Michigan is now trying to close nine coal plants in four years. They have some real challenges. So we are now in the same space that California and Quebec are—with almost entirely renewables or nuclear and with very limited amount of fossil-fuel generation. And we have to face the challenge. You will see the climate change challenge and our economic opportunities relating to buildings which are about 33 megatons—just less than 20%—and transportation which is 35% and 60 megatons. So you will see a lot of focus right now on geo-thermal, on insulation, on natural gas—a whole range of inverters. There is a great company called Royal Park Homes, who are basically selling net zero buildings that give you a commuter monitor that—can you imagine the joy of this experience?—allows you to watch your energy-generating home selling energy back into the utility and telling you how much money you made that month. The premier said to me, “If you could figure out a way to cut carbon and cut people’s home heating and energy costs, I will consider it a success.” We actually think we are getting there, and many of you in this room have been our partners with respect to—whether you are in the building, construction, natural gas, clean energy, solar, wind, nuclear, all of

it—smart grid, smart meters and all the technologies we have to bring together to actually, you know, change ourselves from energy consumers to prosumers.

And we have a large auto sector, and we know that public transit does not solve the problems for everyone. We are very proud of the enormous investments we are making that are critical to better designed cities in terms of sustainability, reduced emissions, a healthier population, better land use, higher GDP growth that comes from transit. But we know most people in Ontario will continue to drive cars, so we have to be more innovative than that. And the demand for electric vehicles and low-carbon technology is going to be there, so we will be putting a lot of attention into electric charging stations and into building the infrastructure and the systems we need in working with industry to produce and export the products so that we are global leaders in clean technology and low carbon technology. But it is not just about new industries; it is almost like the information technology revolution, which was a \$1-trillion expansion to our economy. *Everything* was affected by that—every business process, every service industry. You buy a car today, and it is a computer. Probably the biggest computer you own is your automobile. That was not true 15 years ago. Your car was not also your computer—so information technology became part of every product. Low-carbon technology will become part of every product. It is a similar transformation. So when I say that we have

to seize these opportunities, we need transformative leadership across society. And so where we are going to be focusing now, obviously, is on the opportunities that come with buildings: We have to retrofit every building built in Ontario over the next few decades. That is a whole bunch of middle-class jobs; that is a whole bunch of skilled labour; that is a whole bunch of new technologies to put out there. And the result of that—as someone who lives in a condo—is to replace the HVAC mini-units that they gave me three times, and I have shopped around for the kind of low-carbon, low-energy technology you can install in a home or in a condo unit. It is amazing, and a lot of it is Ontario-made technology. And you know what it would do in my unit if I could retrofit my unit—and I would like to see a government program to help us all do that. Would it not be nice because it is hard to manage for most working families, who do not have \$11,000 to retrofit their heating and put geo-thermal in, you know? The Tesla battery solar kits are \$3,500 right now, so the market is opening up, and we know from our experience with the leading work we did in green energy, we dropped solar panels and are now competitive with everything else. So can we help people? And then does that create more cost than friction in the economy? No, it does not because your heating and cooling bills, and your energy bills are lower. If you are actually introducing a technology that raises the cost, that would be bad; that would create friction and cost and structural problems in the economy. But if you are ac-

tually introducing new capital investments in buildings that lower costs, you are reducing the operating costs and the life-cycle costs of the buildings.

And I learned this because there is an organization in Manhattan called the Durst Organization that bought its first building in 1928; it never sold one; it just built the Bank of America building and built almost net-zero skyscrapers. And for 70 plus years, they reinvested massively in the state-of-the-art technology. They do not need a retrofit program, so we know there are people who have done it on a massive scale and have made money out of it. And, as a matter of fact, they took me and showed me how much money they make—the ROI on their investments. There are some folks from Brookfield that started salivating at the returns on that. Canada, relative to the OECD nations and the G7, has relatively low productivity. We have to improve our productivity, and that is paired with bringing down our carbon levels, our GHG emissions, so we are trying to go from a high-carbon society to a low-carbon society and from a relatively low-productivity economy in Canada to a high-productivity economy. And that is a challenge with low dollars and with low oil prices—that is a challenge for the Canadian economy at many dimensions. So the partnership, the transformation of leadership is really important.

And I am going to close because I know you want some questions, and I really want to hear from you. Just to

give you three concepts around cap-and-trade—the qualities. It has to have integrity; it has to provide stability; it has to be clear. But why are we doing it with California and Quebec, and why are we creating this partnership in a low-carbon economy? Because together we are about the fifth-largest economy in the world, and Ontario on its own cannot work with industry to tip a market. But when you have got a GDP of \$3 trillion and one of the largest affluent markets in the world, coordination between California, Quebec and Ontario can actually deliver market demand, procurement policies, and standards that make sense and that are good for business. This is because we know that the larger your carbon market, the more stable it is and the more choices you have. And everything we have looked at said build a big robust market with stable democracies, with stable capital, which we do. The sooner you do it, the better because as the caps are come on around the world—China, Japan, Europe, most of the major world economies, South America—all are introducing caps on carbon and trade systems. The more you wait, the more expensive it will be because the caps are more restrictive. The cost of allowance of credits and offsets goes up, so we want Ontario businesses to do that. And with Quebec because, if you talk to the trucking industry, if you talk to mining, it is one large regional economy, so it makes some sense to treat it as one economy. With a strongly federalist government in Quebec, we can do that, so we do not have a lot of red tape. We do not believe

in a regulatory model that some governments have.

And the other thing is capital. The money that comes out of the market has to go back into business and back into transportation and infrastructure and transit and to building in the way that lowers greenhouse gas emissions for this reason. We really do not want you to get to your reductions in Ontario—you and me and all of us—by investing in California so as to invest in their plans to make their plans more productive; instead, we want to see an inflow of capital, and that is how we are looking at designing our programs. That is where we need your help so that the money is flowing into Ontario businesses, manufacturers, and to Ontario transit systems, buildings and infrastructure to make our buildings better, make our systems more competitive, make our economy stronger. That is really, really critical—the issue of capital flow. So we cannot do this on our own. This is to create a market for transformative change.

I want to leave that with you, and I think we have time for questions. I want to thank you very much for coming out and giving me my reward for giving you a speech—which is to get your opinions, so thanks.

Questions & Answers

Q: Thank you very much. Mel Ydreos, Executive Director of EnergyVantage. I have a consulting firm here, based in Toronto, but all my work is international. I work with the G20, Royal Bank, a lot of governments dealing with the same issues as you. I have a difficult question for you, I think. But first let me just say that I am very encouraged by the leadership Ontario has shown in the off-coal strategy. There is no doubt or question about that. Germany's emissions are higher today than they were in 2009. South Korea's emissions are higher today than they were two years ago. Australia's emissions are higher today than they were just six months ago. And the primary reason is that they are very concerned about their industrial competitiveness. And, therefore, they are going to the lowest cost margin way of producing energy because they are very concerned about industrial competitiveness. And those are major countries that have major industries. I wonder how you plan to address Ontario's industrial competitiveness with a potential additional cost to their operations.

GM: So I start with the challenge of climate change because there is no business plan that goes beyond three decades if we do not get to a nearly carbon neutral econ-

omy by mid-century. And it is hard to internalize that. I was talking to the CEO of one of our companies; he is a grandfather, and he said to me, "You know I'm having a really hard time with this. My 5-year-old isn't gonna have a planet—may not survive to my age." That is the gravity of what we are dealing with, right? So anyone who thinks there is a good business case for a high-carbon economy, please, step up, and we will share some science and discuss that. My assignment for everyone is go and Google a 7- or 8-degree Arctic, which we will get to—that is not unavoidable. Just understand what that means for our competitiveness. Just look at the GDP loss in Atlantic Canada when we had four meters of snow for the first time on the streets of Halifax in the last week of May and first week of June. So the productivity gains have to be real. We have to be looking at 2% GDP. We, actually, unlike all of those other jurisdictions, met our targets. We are at 6% below 1990 levels, and we are determined that by improving carbon productivity and having innovation-driven productivity in plants and by continuing the partnerships we have with the auto sector that saw unprecedented levels of improvement, we will make those gains.

Our auto sector has to now move into different types of technologies because there is a limited future

for the internal combustion engine as you can imagine. But we know they can do that because we have just come out of a partnership with the auto sector that has seen our auto production go to skyrocketing levels and way up. Our exports are going up, but it is more automated. You do not drop out in grade ten of high school and go work on a GM line; you go to UOIT, and you do a degree in robotics or software—and that is upskilling our labour productivity. Our auto sector, our labour productivity, our natural capital productivity, our light weighing vehicles—all of that transformation. So you cannot look at greenhouse gas emissions simply as reducing carbon dioxide coming out of industrial process.

You know, I spend a lot of time with two major forest companies and one chemistry company, and they have got rocking ideas for doing that, so we have to detach our GD per capita or GDP growth through a strong economic partnership from our material resource consumption to us and our greenhouse gas emissions, which we have done. We are doing it. We are seeing not just less intensity but net-zero, so I think we can do that.

I think it is also understanding markets. This is a challenge for export development. You know I see one of the things that people are starting to realize is

what you are selling your product to—we do not usually think about wood making tall buildings, but wood is all embedded carbon, right? It is one of the best products for making buildings. UBC has right now an 18-storey residence for engineering students. When I was in university I lived in the engineering residence, and I do not know if any of you are engineers or went through that, but, if any building can survive being an engineering residence that does not burn down, does not get blown up, it is about the most resilient structure. We are going to go through a real fundamental shift in repurposing many of the different things we make for products in new markets. We cannot afford to be risk-averse; we have to be innovative; we have to be broad and visionary. As one of the few stable places in the world that is not California, that is not the Prairies that saw horrible dry levels and fires, we have some stability here. If we do not lead, we will not succeed.

The question for Ontarians is not how big a part of the problem we are. The question is how big a part of the solution we can be. And can you think of any other place, with the kind of leadership we have—politically right now and in business and labour—that is in better positioned to be a bigger part of the solution for our planet than us? And we owe that to our children.

Q: Thank you for the good presentation. One of the differences between us and our partner jurisdictions, California and New York, is that they have invested much more in conservation than we have and reduced their demand much more. We have a conservation-first policy, why do not we invest in all cost effective conservation before producing new supply, and while we are at it, import water power from Quebec, avoid the high-cost nuclear rebuilds that are your government's plan and put the savings into lowering our industrial electricity rates and funding public transit?

GM: We do have agreements with Quebec because of the close relationship we have around climate change. I just spent my weekend with David Heurtel—sleeves rolled up doing two days of hard work looking at that. We have just signed agreements, I think, for 500 megawatts with Quebec. We have a reciprocal agreement during their peaks, and our peaks are off, so we sell each other energy. Ours is half nuclear and renewables. The nuclear power base like most jurisdictions in North America—we have a heavy base load. We have a lot of energy. Bruce Power right now is out there making the case for very low costs, charging for vehicles because if you could have low- to zero-cost energy from ten o'clock to five o'clock in the morning, you can use that energy there.

We have the architecture I did some work when I was Chair of the National Round Table Environment of the Economy, and every province has built in architecture. You have got what you have got as whatever your generation is, whatever your grids are, and we, fortunately, have smart grids, and one of the greatest advantages we have in Ontario is that we have smart meters, which is going to allow us to do a lot of things. So given that we only have 30 years, we have got to re-deploy those energy assets in ways that allow us to be able to reduce our emissions and our costs, so overnight charging vehicles works really well. Redistributing energy is, I think, a big challenge because you know one of the questions I have—and Bob Chiarelli and I talk about this a lot—is what if everyone can get an inverter, a solar panel and put geo-thermal and go off-grid and generate your own energy? This is the first generation that we have of just consumer-driven choice, and, you know, I see that happening in many jurisdictions. I have friends who generate their own energy and do not want to be part of any system, so I think the questions you are asking about how do all the energy pieces fit are really complicated questions that I do not have answers for. And Minister Chiarelli is not here. He is smarter than I am and could answer them, but I think those are good questions to put before him. But I think what we are trying to do right now is

to figure out how to get net-zero buildings? And how do we use the energy infrastructure we have now to really power most of our vehicles? And we think there are opportunities with nuclear and with others, and I am happy to buy you a cup of coffee to continue the conversation because I think that you have opened up a lot of big questions.

Q: Mr. Murray you made reference to the benefit of the scale of California and Quebec and Ontario, so this is a two-part question. Firstly, what is the incremental benefit of the scale of being Canada and California, or Canada and the U.S? And what are the prospects of that scale being achieved?

GM: Well, you know, this is the first time we have had a serious conversation about “Canada and...” on this issue. Canada and Australia are the two countries that are the most modern and democratic and environmentally sensitive in tradition. We backpack through Europe; we tend to live closer to the earth and tend to be enormously proud of our lakes, our rivers, and our forests, and, even as we saw them being threatened, we were two of the first countries to drop out of our leadership role. We were actually one of the only countries that walked away from Kyoto, so it is late in the game now quite, frankly, for a national government to be coming in. I think one of the pressures on my federal counterpart and Prime Minister Trudeau and Catherine

McKenna is that we have lost a decade. We have lost a critical decade where a lot of stuff could have happened in this country. I would literally sit at federal-provincial meetings with my colleagues, and all of the provincial ministers would put climate change on the agenda, partnerships, infrastructure, public transit investments, highway corridors, and the discussion would never happen. We tried to do what we could. So I think “Canada and...” is a real thing now. We have got to work really hard, and this is an issue that should be above partisan politics.

But the other thing that I want to say is with respect to the Under2 MOU with California and the climate group, we now have over 70 of what we used to call “sub-nationals”—many of us are separately sovereign—working. California; Quebec; Jalisco; Nuevo Mexico; Para-Brazil, Rio de Janeiro; KwaZulu-Natal, South Africa; Gujarat, India—I can give you 72 of the major economic regions, provincial state jurisdictions and all of the world’s largest federated states, who, like Ontario, are responsible for energy; they are responsible for infrastructure; they are responsible for building codes; they build buildings; they are responsible for subdivisions and land use and electricity and regulation of appliances and all those kinds of things. Our national governments, unless they are unitary, are not responsible. And with federated states, it is us, the

members of those federations.

So the work that Premier Wynne and I and Premier Couillard, David Heurtel, Governor Brown and my counterpart there Matt Rodriguez are doing to build this international coalition of sub-national governments is being effective. If you look at all the leading jurisdictions, so successful has this been that we are now getting national governments.

When Premier Wynne hosted the Climate Summit of the Americas, Mexico showed up as the Mexican government as well as members of their federation, and Undersecretary Lacey said, “Look: Mexico wants to join with California, Quebec and Ontario to build two things, a North American-like carbon market and the green economy.” We do not—as much as we love China—want to be buying Chinese electric vehicles. We want to be making them here, and we all have a shared commitment to do that. So the Climate Summit of the Americas has created a multi-order level of government ability to build a carbon market.

Now, I think what you are going to see in Paris is that we, Premier Wynne, Premier Couillard, Governor Brown and, I think, hopefully, Governor Cuomo from New York soon are looking for an indication from the government of Canada to join in with the government of Mexico; then, you have got another major government. I am optimistic that is going to happen.

If the Canadian government joins in, we have a North American carbon market, which deals with problems of carbon border adjustments which we have to deal with. And that means that we are not going to have trade or environmental barriers when we sell into Europe under the new European Free Trade Agreement or under the new Pacific Free Trade Agreement. We will not have barriers because we will have dealt with our carbon issues here, and there will not be environmental regulations or trade barriers because if you do not deal with your carbon issues, someone else is going to say, “Well, you can’t have a bigger carbon footprint; we’re gonna look at that before you export.” So I think the Canadian government brings a level of government responsible for trade, to actually enable greater trade, and, quite frankly, if the Canadian government can play the same role that the government of New Mexico has played, we will accelerate our ability to get to the kind of carbon market and green economy that we so badly need.

So, thank you very much. Please, take the time in the next couple of months to come and see me one-on-one or in groups. I know a lot of you have been in, and I will juggle my schedule in any way I can to spend time with you. We need to do this with you, and we need to find out ways that these market mechanisms, rather than regulations, enable your leadership

to not just the save the environment but also seize the business opportunity. Thanks very much, and God bless. See you again, soon.

Concluding Remarks by Dr. Gordon McIvor

Minister, on behalf of the Empire Club of Canada, and the OEA speaker series sponsors, I would like to seriously and sincerely thank you for joining us today and for providing us with such an engaging and informed speech. You know you started by recognizing the gravity of the situation that we are facing. But to maintain the enthusiasm and the optimism that we have to have to overcome the carbon dioxide impact as we move towards low carbon economies without decimating our quality of life—which I think everybody pretty much agrees on—is one of the biggest challenges that we are facing as a species of this planet that we inhabit.

So we are very appreciative of you for being here today, and we are very appreciative as well that this has become one of your government's most important and top files. We are also—and I think you would agree with this—really encouraged to see that the federal government has added those words 'climate change' to the environmental ministry. Words matter, and we were really encouraged to see that yesterday. We look forward to further developments and working with your ministry as Ontarians help to implement our climate change strategy. As you said at lunch, it takes everyone in this room and everybody that is listening

to us to make this happen.

Again, thank you so much, Minister. Hopefully, you will feel a little bit less lonely with some of the recent developments that are going on, and you will find some great partners going forward in this extraordinarily important file, so thank you so much. Thank you.

Ladies and gentlemen, I would like to thank the *National Post* as our print media sponsor and Rogers Television as our broadcaster. We would also like to thank Mediaevents.ca, Canada's online event space, for live webcasting today's event at a global level. Please, follow us on Twitter at @Empire_Club, and visit us online at empireclub.org. You can also follow us on Facebook, LinkedIn and Instagram. We have a lot of great events coming up. The OEA has a wonderful event on December 1st. I am sure you will want to join them when they do a behind-the-scenes live interview with Jim Hinds, the Former Chair of the IESO and Director at Hydro One. Here at the Empire Club, we are looking forward in a couple of weeks to welcoming on November the 19th, Premier of Saskatchewan Brad Wall. He will be our third premier in as many months. Also, in early December, you will want to get your ticket and hear the governor of the Bank of Canada talk about what he sees happening in our country's economy next year. And we start the year with our traditional Investment Outlook Lunch on January 5th, so, please, join us for that.

Thank you all, especially, for coming today, for your attendance. This meeting is now adjourned. Thank you.