

RFF Policy Leadership Forum, Feb. 19, 2016
Leadership on Climate Change: How Québec and States Are Leading on Global Challenges
A Conversation with the Premier of Québec, Philippe Couillard



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Leadership on Climate Change: How Québec and States Are Leading on Global Challenges

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What follows is a transcript from an RFF Policy Leadership Forum, “[Leadership on Climate Change: How Québec and States Are Leading on Global Challenges](#),” A Conversation with the Premier of Québec, Philippe Couillard, held at RFF on February 19, 2016. It has been lightly edited for clarity and will not sync exactly to the video recording.

Phil Sharp:

Ladies and gentleman, welcome to Resources for the Future and to our Policy Leadership Forum. This is RFF's premier public platform and for the first time we actually have a real Premier, which we are delighted to have. This is where we try to showcase leaders from the business world, from government, from the nonprofit world who are working on critical issues to our country and around the globe. And in the path, for example, then Senator Obama made his first energy address here.

When the Bush administration was coming to a close, Secretary of the Treasury Paulson made a farewell speech here regarding the environment and the work the administration had done with China on those issues. And most recently when the EPA came out with their final rule on the Clean Power Plan Gina McCarthy, the administrator of the EPA was here. So we have a long and solid tradition which will be further advanced today.

I did want to mention in the room a couple of people that are here who are critical here at RFF. Everybody that's here is critical to RFF however Frank Loy is a member of our board, former chairman of the board, and was a key U.S. negotiator back in the days of the Kyoto Treaty. With him also, or sitting next to him, is Sally Katzen who is a member of our board of directors who has

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again played a very prominent position in the U.S. government, head of OIRA.

Anybody who has ever confronted the issue of the regulatory systems in our government knows that she was in a commanding position with respect to that. But we certainly want to thank all of you for being here. A word about today's agenda. I'll be introducing the Premier but in your program there is a card on which you may write as you see fit questions.

[0:02:00]

And when the Premier has finished his comments we will be picking them up. After that he and I will have a little bit of a discussion here as the questions are sorted through. And then we'll be taking questions from the audience.

For those of you who are watching this online you can submit questions via Twitter at #askRFF. Afterward there will be a media availability with the Premier. And for information about where that will be and how it will be managed please catch one of the RFF staff who will be available throughout the room at the close of the business here.

Well just a few words if I might about Resources for the Future and Canada. We have a long history of our scholars working with Canadian scholars on all kinds of projects. Many of us have been engaged with Canadian policy makers at the federal government level as well as in several of the provinces. Most recently Dr. Molly Macauley was very much involved in Québec herself. She's the vice president of research.

And we have a new initiative taken here in terms of our engagement and our research. We call it the North American Energy Initiative. As people know the energy systems in all of our countries are undergoing tremendous transformation, partly market transformation but also because of climate. And we look forward to the possibility or at least we're examining as many people are how to integrate those markets in North America – meaning Mexico, the United States, and Canada – and also how to harmonize energy an environmental policy.

Since this we – many of us – believe is especially important in the climate area if we want to effectively address the problem and also do it cost effectively where one country is not pushing the cost off on one of the other countries.

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[0:04:00]

But we are all marching together hopefully in a coordinated way. And you may know there recently was a tripartite ministerial raising these kinds of issues with the leaders of the national government from Mexico, the United States, and Canada.

And now as I think many people understand Canada plays a very significant role in our energy supply in the United States, providing a partner of sources of natural gas, of oil, of electricity, and even uranium which helps to power our nuclear power plants. I will leave it to the Premier to illuminate the important role that Québec as a province plays in this – in both the markets and in policy development. But I will simply say this: the Province of Québec is the fourth largest provider – generator – of clean hydroelectric power in the world.

It's only outdone by large nations like the United States, China, and Brazil. And this is an important source of power for us in the United States in various parts as well as in Canada. But in addition to that the province has been playing, and this Premier has particularly been playing, a very important leadership role on climate policy not only within the province itself but in the national picture in Canada, working with several of our key states that are leaders in this and recently at the Paris Conference.

And indeed for those that follow the development or the lack of development sometimes of climate policy here and around the world certainly the lesson of the last decade is how critical states and provinces have been to take initiative to try to get things done, to keep these policies alive when some of the national governments have waived back and forth over what to do.

[0:06:00]

Well without more I want to clearly introduce Philippe Couillard, the Premier of Québec. You have in your program a fuller biography. I will simply say before engaging in politics he had a very distinguished career in medicine and science, a very prominent neurosurgeon who won many accolades from his peers. In 2003 he was elected to the National Assembly of Québec and was a cabinet officer minister of health and social services. And in 2014 he was elected Premier of Québec. Ladies and gentlemen, Premier Couillard. *[Applause]*

Philippe Couillard:

Hello. Hello everyone. Thanks for being here. I'll just repeat something that I said earlier today to a different audience. Yes I'm a neurosurgeon who decided to go into politics but please don't take any consequences from that or draw any conclusions.

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[laughter]

I'd like to thank Mr. Sharp, Madame Macauley, Mr. Lauzon our representative in New York City but also responsible for our Washington office. And Mr. Tremblay who was our deputy minister of international relations and whose father interacted with this institution years ago – a few years ago I learned today actually. So I'll give you a little refresher of French to start with and then there will be a test at the end.

[laughter]

[speaks in French]

That's it okay? It's a pleasure and an honor to speak to the members of the most important think tanks in Washington, not to mention a respected and informational voice in the U.S. of the environment. We all know that 2015 was by far the warmest year since climate data have been recorded. This is one of the many examples which illustrate our urgent need to collectively lower our greenhouse gas submissions before it's too late. Hopefully it's not too late before we get to the tipping point.

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And I really like the way Al Gore approaches that question when he speaks to audiences such as this one and others around the world. And I've been fortunate enough to listen to him a few times. He brings it down to three questions. I'm sure some of you have heard him say that about change – a magical word in politics – change. But let's apply it to climate change. The first question is: must we change? Yes. All the evidence is there that we should act and we should be all acting together.

And the second is can we change? Do we have the means to act? Yes we do have the technology. We have the means. We have the methods. We have the policies to do something. Then the third one is the most critical one: will we change? And that's an issue about political will and leadership. And as he said – Al Gore said – in one of his speeches actually in Toronto last year. Unfortunately he said political courage is a renewable energy.

[laughter]

So hopefully if we don't make it completely well the next generation of leaders will certainly do something much better than we have been doing. With that in mind – and Québec has been a

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leader – I must say and acknowledge what was said before me in the fight against climate change for 20 years. But we do this because we were blessed by geography and history. And we are fortunate that we can rely on a clean renewable source of energy with more than 99 percent of our electricity generation coming from clean sources. Most of it is of course hydroelectricity.

We are very proud of our extensive hydropower capacity which was described a little bit earlier, which we can attribute in large part to one of my famous predecessors Robert Bourassa. Those here that have studied the history of energy in North America probably went across his name a few times. Mr. Bourassa served as Premier of Québec during the '70s and then envisioned the potential for hydropower at a time when many in Québec were in favor of building a network of nuclear power plants along the St. Lawrence.

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So this was a critical and visionary choice. After all water covers 12 percent of our surface area. So this choice seems to be natural today. And we have 3 percent of the world's fresh water reserves. So again it's a fundamental fact about our geography that needs to be taken into account. But beyond hydro in the 2000's we also invested in wind power. And by 2017 our installed and networked integrated wind power capacity will reach 4,000 megawatts which is roughly 10 percent of our total electricity production.

Forty-six percent of the energy consumed today in Québec is from renewable sources. Not bad – better than many places – but could still be better. This gives us one of the lowest GHG emissions levels in North America – 9.6 tons per person per year in 2012. It also gives us a comparative advantage in the electrification of transportation which is for us probably the best example in how you can link fighting climate change with a kind of big development and job creation.

We know – and it's worth repeating – hydropower stations emit on average 50 times less GHGs than natural gas plants and around 70 times less than coal fired plants obviously. And hydropower related GHG emissions happen initially in the lifecycle of the station but they are limited, temporary, and non-recurring. Currently as was said we are the world's fourth largest hydropower producer with installed capacity of 36,000 megawatts.

While pursuing our efforts to promote the efficient use of electricity we also are continuing building our hydropower

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production capacity for local consumption of course: our business, individuals, families, and also for export. A clean and reliable energy source, Québec's hydropower can help neighboring U.S. States reach their GHG emission reduction targets and lower their carbon footprint.

Robert Bourassa – again him – in a book entitled *Power from the North* argued for stronger energy trade relations with our U.S. partners.

[0:12:00]

And even today it's worth quoting a short passage of this book. It's so very accurate 45 years later.

One thing is for certain; the need is there and will not subside. The question for the Northeast is whether it will continue its dependence on very expensive forms of energy which may damage the environment and do little to help the economy or whether the U.S. as it has done so often in the past, will take decisive steps to protect its interests, and in this case look to its neighbor to the north for a viable alternative – her neighbor who is already its greatest trading partner and – I would add as he did – best friend in the world.

Currently Québec provides around ten percent of the electricity consumed in New England and six percent of the electricity in the State of New York. In 2014 our electricity exports to the U.S. made it possible to prevent the emission of 6.2 million tons of CO₂, roughly equivalent to 1.6 million cars. While our existing energy partnership is strong Québec has the resources to help our U.S. partners go even further. The structure of our network of high voltage lines – the largest in North America – provides a secure supply of energy.

The network was designed to meet peak winter demand, obviously with our climate conditions, since 75 percent of Québec's population heats their homes with electricity. Hydro- Québec, our hydropower public utility spends over \$1.6 billion Canadian dollars annually, not only to ensure the reliability of our own network but also to comply with the strictest North American standards. We know that hydropower is extremely versatile.

And in addition to their reserve capacity Québec's large reservoirs can quickly respond in a matter of minutes to variations in demand

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and in the production of intermittent renewable energies such as wood power which is as you know very hard to store until now.

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By contract hydropower is very easy to store. How? You just let water rise behind a dam. That's how you store hydroelectricity. And you use it when the need comes. Hydropower production is not subject to fluctuations in fossil fuels prices.

So long term supply contracts which can have flexible provisions guarantee the supply regardless of the market prices and grant the customers – you hopefully – the same priority enjoyed by Québec customers. However, right now our U.S. partners can only increase their hydropower imports to a limited extent due to the congestion of transmission lines in the U.S. So the construction of new transmission lines will help stabilize the price of electricity and lower emissions in the Northeastern U.S.

Connecticut, Massachusetts, Rhode Island, and Vermont have all realized this and have in terms launched a competitive bidding process to begin this critical project. At a time when fossil fuels and nuclear power both raise serious concerns, few industrialized countries, or states can count on such abundant, clean, and renewable sources. The Northeastern U.S. in our view must take advantage of this strategic partnership with Québec hydropower meet its own renewable energy goals and achieve long lasting reduction of GHG emissions.

Our abundant natural resources have certainly benefitted our GHG emissions record but our progress would not be nearly as effective be it not for our collaboration of international partners, and particularly our U.S. neighbors. Now 15 years ago in 2001 New England governors and Eastern Canadian Premiers adopted a regional action plan to fight climate change. This action plan set regional GHG reduction targets for 2010, 2020, and 2050. At the time it's important noting that they were the first group of federated states to develop such a strategy – progressive action reflective of our forward-looking societies.

Keep in mind that this action plan was adopted and implemented four years before the Kyoto Protocol.

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And in 2009 the region more than met the GHG reduction targets it had set for 2010. More recently the same conference adopted a GHG reduction target of 35 to 45 percent below 1990 levels for 2030. And in Québec in 2012 our measures toward our Climate

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Change Action Plan 2006-2012 helped reduced its GHG emissions – our GHG emissions – by 8 percent below 1990 levels therefore surpassing the Kyoto targets by 2 percent. I don't think any other Canadian provinces surpassed the Kyoto targets – to my knowledge at least.

Looking ahead to 2020 Québec aims to reduce its emission by 20 percent below 1990 level which I must say represents a significant challenge for a province where 99 percent of electricity already comes from clean and renewable sources. So the low hanging fruits have been picked. Now we are dealing with more difficult and pressing issues. But it also brings considerable commercial opportunities because of the expertise we had to develop and did develop over the years.

For 2030 our target is 37.5 percent below 1990 levels and we are committed as part of the Under 2 MOU initiative to cutting emissions from 80 to 95 percent by 2050 as recommended by the Intergovernmental Panel on Climate Change for industrialized countries. Now the cornerstone of our climate change strategy is our cap-and-trade system for greenhouse gas allowances which has been in effect since January 2013 and has been linked to California's system since January 2014. And to that effect Governor Brown obviously is a great friend and partner of ours.

It is the first carbon market to be designed and run by states and provinces in different countries and in different political, legal, and regulatory context. So it's a lesson to be learned here that you can do complex things in very different regulatory and legal environments.

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Again it's a question of political will and acting at the right level. And I do believe that some national states/regions/cities – large cities – can play a significant role sometimes more actively than larger national states.

The cap-and-trade system guarantees the achievement of emission reduction targets because there's a word "cap" in cap-and-trade which obviously is lacking in other methods of carbon pricing. The system can reduce emissions at the best possible cost to emitters who now have options, a degree of flexibility, and a defined period of time to meet regulatory requirements. The reason [this] is better than carbon tax is that you put the burden where it should be – on the shoulders of emitters – who then have to decide am I going to

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invest in green technology to lower my emission or pay these permits and then impact my bottom line?

If I want to keep my bottom line as it is I'm better to invest in green tech and lower my emission. I won't need to buy that many units. And maybe I can sell units on the market if I become even more efficient. So to tell you about the interest of the system we've run six auctions now with California. All units sold above the floor price because we do have a floor price that keeps going up, which is fundamental when you decide a cap-and-trades or a carbon market system. And even units in advance for 2018 and 2019 have been sold already.

So their system is a great success. It works. It encourages businesses to increase their energy efficiency, and as I said, use clean energy sources, lowering their costs, and becoming more competitive. Again if I think climate is not a contradiction, vis-à-vis economic growth, development, and job creation, because it stimulated development of low carbon technology and the creation of sustainable green jobs and the example of electrification of transport is probably the best one can use to give a practical idea of what we mean when we say this.

It promotes the pursuit of economic and environmental goals while preparing for the transition to a low carbon economy.

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But before we implemented the system – and I think this is critical for states that want to follow in this direction – our government had established continuous dialog with the private sector to time sector all tables that included the representatives of major emitters. So now 85 percent of emitters are covered by the carbon market in Québec.

It provided them with detailed information about the scope, impacts, and advantages of the system as well as the method used to distribute free emission allowances for industries subjected to national or international competition knowing that the amount of free allowances is going to decrease year after year after year while emissions go down and the floor price goes up. This is how you set up a market that works. Several funding programs under our current Climate Change Action Plan are also helping businesses improve their energy efficiency and thus lower the emissions.

Why can we do this? Because we take all the proceeds – to the last cent – all the proceeds of the carbon trading system and put it in a

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dedicated fund which we call the Fondsvert – The Green Fund which funds for example subsidies we give for people who buy electric cars or to businesses that will change their energy sources, or mitigation action for example dealing with coastal erosion.

So to date all the auctions I've told you about have been jointly with California. And they've already generated \$1 billion Canadian dollars for us. And it will grow to \$3 billion by 2020. That's another great advantage of the system that you can use the money – and you should use the money – and specifically use it towards greenhouse gas emission, adaptation, mitigation, and other environmental initiatives.

So it's also providing the ground work to develop a larger market. Most recently Ontario, our neighbor to the west, and Manitoba have announced that they will join us in the cap-and-trade system. So we are ready to have other Canadian provinces or U.S. states that are thinking about creating a cap-and-trade system or linking their systems with ours such as RGGI for example.

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And I've noticed with a lot of interest recent remarks by Governor Cuomo who indicated that we should all gain towards creating some kind of integrated market for carbon.

Furthermore, as co-chair of the International Carbon Action Partnership Québec is already sharing its expertise on setting up a link to carbon market. Angel Gurría as secretary general of the OECD – I was there – observed that the Québec /California carbon market is a rare and shining example on how a carbon market should operate. I will quote his words: "The only one that works." What we have to ask ourselves is why is it working? And not that we will not do our own mistakes; we always do mistakes. And the trick for the next person is not to repeat the same mistakes.

But we looked at the European experience which was not that successful. What do we see when we look at the European market? We see that there was no floor price. We see that there was no limit in the number of units in circulation. And these two fundamental factors in themselves probably explain close to 75 to 80 percent of the reason why the price collapsed and the market never worked. So learning from that we went in the direction I indicated earlier.

China – you probably know here that they have seven pilot regions working towards carbon market. They've decided to do a national

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system. They were in our office [a few] weeks ago to study this system and also will go to California to get that side of the story. And we have an exchange agreement with Mexico. In addition at the invitation of the World Bank – and I will be meeting the chair of the World Bank later today – Québec is participating in several initiatives focused on carbon pricing and market mechanisms such as a Partnership for Market Readiness and a Carbon Pricing Leadership Coalition.

In pursuit of our targets Québec's proactive leadership – I would say this is a characteristic of what we're trying to do – has ensured that we are firmly on the path to reducing emissions. But the next steps will be more difficult. See that we are prepared to face the challenge. Right now nearly 45 percent of our emissions are related to transportation – heavy transportation particularly like trucking and other similar activities.

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There for to make a significant impact in this sector the government has made the electrification of transportation one of its top priorities which of course include public transit.

Under our 2015-2020 just released Transportation Electrification Action Plan we plan to invest \$420 million by 2020 in order to get 100,000 rechargeable electric or purely electric cars on our roads out of a car population of over 5 million. Québec already has enough electricity – enough electricity – to power in theory 1 million electric vehicles without effecting domestic supply or business supply or exports. So it makes a choice of choosing electricity over gas an easier one.

We were the first province to implement financial assistance programs for electrical vehicle buyers and Ontario just followed suit in the recent days. So there are already children in Québec who have never been in a gas-powered vehicle because their parents bought an electric car. To them naturally a car needs to be plugged in just like a fridge or a TV set.

[laughter]

A different childhood than what I – at least I – knew. The same children ride to school in electric busses. So we have a company called Lion Bus based in Québec who is the first manufacturer in North America of fully electric 70 seat school busses. In 2015 nearly half of the rechargeable electric and hybrid passenger cars sold in Canada were sold in Québec. So people are buying into

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this. They want this. And even with the current low prices of fuel they still want electric cars and they still want to do something on personally and with their family for climate change.

And as soon as they see the savings – I spoke to a few of these families – they cannot believe how much they're saving just by stopping filling up the tank with gas. Enough to go have very nice vacations every year – that's exactly what they tell me. And once you buy an electric car – we know normally people will buy it as a second car it doesn't take long before it becomes a first and most frequently-used car.

[0:26:00]

Do you have an idea? I'm sure you do. What's the percentage of time a car sits doing nothing? Ninety-five percent. The rest of the time it's motionless in traffic or moving. So does that make sense? If we just think about it it makes a lot of sense to drive electric cars on our roads. At the end of 2016 we will have deployed 800 charging stations across Québec including 60 fast chargers because people are concerned. Yes I want to buy an electric car but am I going to lose power in the middle the road, in the middle of the night?

Am I going to be able to charge my car if I want to drive from Montreal to Québec City? So this is why we're also doing this, and helping people to install charging stations at home too so they can charge their car during the night. We also support employers in setting up stations at workplaces. And partnerships have been developed with Northeastern U.S. states to create cross-border electric charging circuits such as the electric charging corridor from Montreal to Burlington which is already up and running. You're welcome to try – come and use it.

Governor Peter Shumlim is a great partner, a great friend of Québec. And let's make sure that soon we can share the dream of driving from Montreal to Boston without gas or even better to the beaches of Maine. Why not? And talks are now going on precisely to do this. And it's possible. Technically there's nothing preventing this, just a question of having the charging stations at the right place. But furthermore we want to develop a solid industrial ecosystem by supporting projects and continuing to attract international players in the field of electric transportation.

Because we have a complete value chain in this domain – another reason why we are an ideal partner. So we have lithium mines. We all know the value of lithium today. It's a new fresh metal. There

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was a paper in *The Economist* a few weeks ago on that specifically. We have rare earth. We have businesses that are active in manufacturing high capacity batteries, material components, electric engines, light materials, and charging stations, small samples of electric subway cars, hybrid busses, and low speed electric vehicles.

[0:28:00]

So doing all this pays off because we've formed a partnership recently announced in Davos with two French companies. One you probably don't know: Exagon. It's a small company. But the other one you probably know: Peugeot. They will carry out the study on the manufacturing of electric car components for Québec. So we are hopeful that the result will inspire the French car manufacturer to set up an electric car assembly plant in Québec and benefit from this green environment that I was describing earlier.

So we're going to methodically approach car makers and car manufacturers and offer each of them the possibility of at least visiting us and evaluating the possibility of setting up an industrial installation in Québec. We also plan to support urbanization models that encourage sustainable transit habits such as TODs – Transit Oriented Developments and bolster urban planning approach is a gift priority to ecomobility.

Transportation electrification will involve both passenger cars and the renewal of mass transit infrastructures. And it's worth knowing that already 50 percent of transit in the mass transit network is electrically powered. I think we can go higher than that. Thanks to our strength in this sector we will host the World Electric Vehicle Symposium & Exhibition and International Transportation Electrification Conference in June in Montreal. Of course you are all welcome to attend.

Finally ten years after adopting the 2006-2015 Québec Energy Strategy we have decided to review and issue a new strategy for the 2016-2030 period which will be aligned – must be aligned – with the GHG emissions reduction target of 37.5 percent by 2030. It will aim to improve energy efficiency, reduce the quantity of all products consumed, increase bioenergy more generally, and clean energy production. Energy efficiency and energy substitution and behavioral changes are the three pillars of the energy transition required to reach these targets.

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We know that the world is changing. The business community, even the financial markets are changing. I was struck in the West

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when I attended a panel with Mark Kearney another other colleagues from the national financing sector that definitely now include climate risk in their assessment of investments and in the choices also of investment. It's happening. And when the financial market is in that game you know there is no going back. It's happening and it will happen more and more. So the trend is clear. The shift is happening. We understand that shift and we are adapting to it very quickly with a sense of purpose and cohesion.

Three elements have to go hand in hand and to me it's quite critical because the question of cohesion of public policy is always a challenge as you know. We have economic policies; we have a climate change plan; and a soon to be published energy strategy or policy framework. The three have to work with one another. One cannot contradict the two others. It's quite critical and important. Energy policy because we want to increase the share of renewable energy in our portfolio, way above – hopefully beyond – 50 percent. Now it's 46 percent.

Climate change initiatives we do of course for ourselves but for our responsibility for the world and specifically for our children. It's not naïve to say this. We have a role to play and we will be asked one day if when in position of power we did something for this phenomenon of climate change. And we intend to be able to answer yes. We probably did not do all that needed to be done but we did a lot and as much as we could.

In our economic policy, investment criteria now will include environmental sustainability of projects. Countries and businesses are surging all over the world for solutions to reduce emissions. So innovation will play a critical role. And here's another opportunity for economic growth and development: creating high quality jobs for our citizens. And sometimes we know that compromise will be needed.

[0:32:00]

We may face a situation where economically challenged region of Québec we may need to install a factory that would appear at first glance to go against our objectives.

But then let's use it. Let's turn it around and use it as an opportunity. So let's invite our businesses to propose to us carbon capture technology and new technology to capture and store carbon that we can then export to the rest of the world. So let's transform this apparent challenge in an opportunity. More than

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ever – and it's not a cliché to say this and it should never be again – what is good for environment will also be great for business.

We just closed the other day of course the COP 21 Conference. I had the pleasure of participating in a number of meetings, panels, forums, thanks in large part to the alliances that Québec has successfully built as part of its climate diplomacy over the last 15 years. It's not something that happens overnight. It takes years and years of work and effort to do. It was important for us to be in Paris for this moment. It is particularly appropriate and necessary for federated states to have a seat at the table.

Why? Because the political will and the environment at the national level changes – fluctuates. Unpredictable events can take place like the recent ruling here from the Supreme Court which I'm told is a temporary setback and nothing that should necessarily have long term consequences. But when the activity wanes at one level then the other level should pick up and increase its activity, particularly us at the sub-national level: regions, states, and large cities.

And we've seen this in our country with the results now – and it's worth knowing around the world – that in spite of what has been said and heard about climate change in Canada, today with the addition of Ontario and Manitoba assuming that it will be in place today Alberta announcing a carbon tax recently, BC already having a carbon tax, close to 80 percent of Canada's populations lives in a jurisdiction with a strong signal of carbon pricing. Isn't it very different from what we hear and what we read about our country?

[0:34:00]

So things are happening on the ground. Things are happening close to people at the municipal, regional, and provincial levels. And I'm sure in the States you probably would see the same if you look at your large cities and your states. This is where people are very close to the local administration. They want action to be taken and they want to see their elected officials doing something about this.

So we are at this level drafting, enforcing laws, policies, standards, programs, and fiscal mechanisms in areas that influence emission levels such as energy, environment, transportation, industry, agricultural, and land management. In Canada natural resources are provincial jurisdiction. Therefore it's up to us to make the choices that lead to our climate change initiative. And we are dealing with the consequences of crisis associated with climate change every day.

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One thing that we can be grateful to President Obama for is that the way he approached initially the issue was before tackling the issue of how much is it going to cost to fight climate change exemplified. And he showed how much it was costing today to have these phenomena among us, and how much it was costing not to do anything. And it just turns a conversation around and makes it much easier because we see it happening – catastrophic weather events, coastal erosion, healthcare impacts, and all the rest.

In the north we have a subarctic region, a huge subarctic region. The thawing of permafrost is very visible and has significant impact on infrastructures there and the quality of life for people who live in the north. So at the conference in Paris Québec helped gain formal recognition of their role in the involvement of federated states in the fight against climate change. It also successfully worked with the Canadian government to ensure that the Paris agreement sends a positive message concerning the use of market mechanism.

If you read the agreement of course and as you know and as you can guess it was not unanimity around the world. This very question of carbon pricing was debated rather hotly if I can say so.

[0:36:00]

But the fact that we have a reference in the agreement for carbon pricing and carbon markets is a significant progress. And we were a part of that. In addition Québec made climate cooperation a new part of its international activities by announcing a series of new measures in Paris.

The first is to strengthen the capacity of the most vulnerable French speaking countries because we are part of the Francophonie which is UN affiliated agency of French speaking countries to meet climate change challenges through clean technology based projects, expertise in adapting, and reducing emissions. Second we will also continue to multilateral climate finance by making our contribution to the least developed countries fund of the Global Environment Facility which will fund us at development and implementation of national adaptation programs.

Since climate finance is usually the responsibility of the countries that are parties to the convention this initiative sets a precedent to pave the way – we hope – for similar contributions for other federated states including U.S. states and regional actors. The third measure is to strengthen the capacity of the most vulnerable French

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speaking countries to negotiate in French and implement their own climate commitments. As part of this measure Québec will support actions by young people who make up a growing percentage of the population in regions disproportionately by climate change.

To our great satisfaction the Paris agreement is a product of a balanced, flexible, and ambitious consensus that reflects today's reality but also looks ahead to tomorrow's reality. And finally and again I would like to pay tribute to the leadership shown by the U.S. in reaching such a crucial agreement, an essential step in collectively securing our planet's future. So today we know that what is good for the climate is also good for business. Our businesses can modernize the world and reach substantial benefits in doing so.

Today we know that socially responsible behavior is a condition for success. And no country – most countries – sorry – no matter how much they welcome capital are tightening their standards now that they understand the obvious need for sustainable development.

[0:38:00]

Today we know that risk management now includes climate risk and will increasingly take into account the tendency of certain funds to withdraw or limit investments in carbon intensive projects.

We urgently need to adapt equal friendly technologies at a much faster rate and set up an effective environment for creating literally millions of new jobs. We must focus on transitioning to a low carbon economy. We can proactively choose to do so now or we can wait and let others reap the benefits today or others pay the price tomorrow. Far from being an obstacle to grow the fight against climate change will shape the economy of the 21st Century just like coal did in the 19th Century and oil in the 20th Century.

Innovative businesses and societies and have always adapted, found solutions, and developed products and services. Today those businesses and societies whose vision is adapted to the environmental challenges will be the big winners. And we plan to be one of them.

[speaks in French]

I thank you for your attention. I look forward to our discussion.
Yes. *[Applause]*

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Phil Sharp: Well thank you very much for that very illuminating indication of all the things that have been going on in Québec and your engagement elsewhere in the world. It's very, very impressive frankly. Let me ask you just a couple of questions before as we collect questions from the audience here to kind of get us started. When you look south of the border and you folks are so deeply engaged economically and in policy and whatnot, would you like to say something

[0:40:00] about what you'd like to see happen either at our national government level or some of those states that you have to deal with or you do deal with – excuse me. *[laughter]*

Philippe Couillard: Yes. It's not such a black picture. I mean a lot of great things are happening in the U.S. on the issue of environment, the renewable energy, and climate change. It's another example of how we could start the process and how we could start the wheel turning by going closer to the people, you know going at cities, regions, states – in the case of the U.S., provinces in our case, or regions in Europe. This is where people are more comfortable to deal with their officials and have more influence on them.

One thing that I know in spite of all the rhetoric that is sometimes shown in the media is that I'm quite certain that the majority – not a huge majority but the majority – of the public want their government to do something and to be seen doing something and have results and show them the results. And they are even ready to pay some price through carbon pricing because they know the long term benefits in terms of job creation and improvement of quality of life.

I'm deeply convinced about that. It just takes a little bit of energy – if that's the right word – and make sure that the person who leads is personally deeply convinced that it has to be done. To me this is quite important.

Phil Sharp: Our folks have done work with scholars at Stanford and doing a lot of public polling about the American population and certainly what you articulated is overwhelming the case. And the notion that there are a lot of deniers in the country is actually quite small but they happen to have some very vocal representatives in Washington at the moment.

Philippe Couillard: Right.

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Phil Sharp: Let me, if I might, be a little more specific about that. You folks obviously have this wonderful resource of hydroelectric power which is available to help especially in the Northeastern United States. Obviously transportation, as you already alluded to, the problem of congestion is that. But I assume to solve the congestion problem means we need to build some more lines.

Philippe Couillard: Yes.

Phil Sharp: And this always is a political challenge.

[0:42:00]

Philippe Couillard: I know and I've seen the impact of the debates in the U.S., particularly in New England. So we have projects now in the region of Lake Champlain but also in New Hampshire. And this of course raises issues about landscaping and environmental impact of transmission lines. But at the end of the day if you look at the end benefit of bringing constant, predictable, reliable, lower cost energy to a region like New England it seems to me that the benefits outweigh the issues.

Yes people would like to stick with other renewables like wind and solar. But in the present state of technology it just doesn't have the storage and the capacity to ensure a good, reliable basic supply. And that's what hydroelectricity is bringing. And I think financially for the U.S. states in our region it's probably much better to enter into long term contracts than keep this spot market approach where of course it's good for us because by definition when we sell money on – this electricity on the spot market we go in higher periods of demand.

So it would be much more advantageous and predictable again to enter more long term contracts. Right now the only one we have is with Vermont. The rest of our trade which is huge in quantity is only done through peak or spot market transactions.

Phil Sharp: Let me turn the question to another government and that is your national government. Your party has won the national election and Prime Minister Trudeau is now leading. Can you tell us anything about either what you expect from, what they can do, as we Americans have trouble understanding your system? We have trouble understanding our system.

Philippe Couillard: Maybe vice versa sometimes.

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[laughter]

Phil Sharp: We can't understand our system let alone yours. But most of us recognize that as you alluded to in your speech that for certain questions there's a lot more power at the provincial level or at least –

Philippe Couillard: Not true.

Phil Sharp: at the federal level –

Philippe Couillard: You're right.

Phil Sharp: kind of the capacity to interfere as much as ours can. So I just –

[0:44:00] wonder if you can say something about what you expect on climate from the new government or what you would wish for perhaps.

Philippe Couillard: Well things have been happening. The tone on the topic is different and much more insisting that we need to be part of the solution. But let me be very clear that I had a very good working relationship with Mr. Trudeau's predecessor. I was working well with him. But you know I always made the case and it was not always heard that because Canada is such an important oil producing country we should also be seen as a leader in climate change.

And I always used the example of Norway.

Phil Sharp: Right.

Philippe Couillard: Norway is a very important oil producers but nobody blames them for environmental impact. And they do deep water drilling for God's sake which is kind of extremely contentious all around the world. Why is that? Because they have such proactive policies: electrification transport is one but others as well that people say globally the net result for this country's impact on earth is good. It's positive. And there's no reason why in Canada we shouldn't have the same approach.

The second part is that what we talk about – the Canadian Energy Narrative as we like to say – yes it's about oil and gas. But it's also worth knowing that Canada is the third-largest producer of hydroelectricity in the world and is very active also in renewable energy. So it's not a black and white picture where the future is

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only attached to oil and gas. It's also heavily linked to renewable and particularly hydroelectricity.

Phil Sharp: And as I understand you face on of the controversial issues about that – Alberta oil potentially getting to the east with Energy East that TransCanada wants to put in place. I don't know if you wish to comment or if you know what the status of that is.

Philippe Couillard: It's a very difficult question and I have made certain things very clear. The debate is not set. It's a very touchy and difficult question. Why? Because this pipeline project – and nobody says this enough – until you reach Montreal coming from the west is already existing.

Phil Sharp: Yeah right.

Philippe Couillard: As soon as you –

[0:46:00] go through Montreal it's new pipeline going through our communities and through our rivers. So when we are accused by others of wanting to look at this very carefully and being cautious before saying yes I will remind people that anywhere on earth such a project would raise significant issues of safety.

Phil Sharp: Sure.

Philippe Couillard: And on environmental concerns. That's one thing that I will always repeat. We want it to be a fair process, an honest process. We will set up our own environmental evaluation process which has started by the way a couple of weeks ago. And we will make our own presentation to the National Energy Board and definitely we will be part of the decision. We will listen to what people have to say. I think always I based all my political activity on the concept that public opinion is much more intelligent than some people say.

They're very able to look at very complex issues and make up their own mind. But facts have to be presented to them which is not the case now. And the promoter has done a very limited job as far as explaining his project. But again we'll act here for common interest, not for any other interest. And we'll keep our own initiative to decide on that.

Phil Sharp: I'm struck by the way you think about these things which sounds like something that came out of your previous career where you

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have to diagnose a problem. You have to decide among alternatives.

Philippe Couillard: It's funny –

Phil Sharp: That isn't always prevalent among all of our politicians. *[laughter]*

Philippe Couillard: Well no this is something I'm asking. What is the difference between practicing surgery and doing politics? I say well not that much – not me doing cuts by the way. Nothing to do with this.

Phil Sharp: *[laughter]*

Philippe Couillard: But as you said coming to a diagnosis after reflection about other possibilities and setting up treatment and looking for side effects of success of the treatment, then modifying treatment as you go which is the basis of any quality improvement program. So maybe this is part of my professional background but I like to look at the evidence. It's very hard to do purely evidence based policy making. That's a very interesting topic of discussion.

[0:48:00] We want to do as much as possible to do it – as much as possible – evidence based.

I'd rather say evidence informed because evidence becomes part of the decision making which also includes social concerns. Yes political concerns in the right meaning of the word, meaning if someone raised their hand and said, "I don't want this project in my neighborhood," at least a person should be listened to and should be answered. That's for me the right way to go.

Phil Sharp: Well I can tell you now we will be making use of that quote extensively since our whole life blood here is to try to assist in evidence decision making –

Philippe Couillard: We need that. We need the scientific community –

Phil Sharp: on things.

Philippe Couillard: to be part of this. As we're doing with our northern development plan that is supported by evidence through our universities and the Maritime Strategy which is another of our larger economic projects in which also we want to use our academic leaders, engage with others in the world to tell us where to go and where the evidence is pointing.

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Phil Sharp: I'm going to turn now to Dr. Dallas Burtraw from here. This is not his day job to read off questions and sort them out. I'd like to tell you his day job has been, along with Karen Palmer and others, technical advisors to the Reggie Greenhouse.

Philippe Couillard: Yes.

Phil Sharp: That system.

Philippe Couillard: *[inaudible]*.

Phil Sharp: They helped design the Auction 6 and part of what you were referring to both in California and here and especially that attitude that we needed a floor in the pricing system. That was not originally part of the conversation as I understand it in New England. And as it turned out that was essential there to develop the resources.

Philippe Couillard: Absolutely.

Phil Sharp: And so our people have worked extensively on cap-and-trade and frankly on every other alternative approach to this including the carbon tax. Well with that let me turn it over and we'll have some questions from the audience.

Dallas Burtraw: We have several questions and –

[0:50:00] one interesting one is if you could tell us more about the Arctic Circle Assembly and its work to ensure sustainable management of the north.

Philippe Couillard: Yes. We are actually part of that organization. It's a great organization. We're going to be holding a satellite symposium in Québec probably in the fall. And we're a full-fledged member and active participants in this because a large part of our territory is subarctic. And we see the impact of climate change. This is also where lots of natural resources projects are located. So engaging with the First Nations, making them true partners in whatever projects we have there.

Protecting part of the territories, so 50 percent of this huge territory is going to be reserved for non-industrial use. It's a decision we took. It has been I think appreciated by observers around the world and will be I think used as an example of every interesting

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sustainable development in a huge territory. We're talking about 1.2 million square kilometers here with yes abundant resources but also people living there – First Nations in majority but others too. And they need to preserve biodiversity and wildlife.

Dallas Burtraw: Also Premier – this is our last question that we're going to have time for because of the tight schedule – but we have several questions revolving around the relationship in the provinces with British Columbia and Alberta with the carbon tax, Ontario joining the Québec /California system. Do you have a vision for reconciliation or coordination of these provincial level policies? Will they align somehow? Is there –? How do you think this could move forward?

Philippe Couillard: The question maybe could be must they align? We have a very decentralized federation in Canada – much more than other countries in the world where actually I see this discrepancy as an asset 'cause we can see what others are doing and look at each other's experiments and just what we do. I think the important concept here is carbon pricing. Then the debate is open.

[0:52:00] Is it better a carbon tax or a cap-and-trade system? You know you have pros and cons in both.

We chose the carbon market for reasons I outlined earlier. But I don't necessarily think that it would be good to unite this under a single regulatory environment. First it would not be compatible with the Constitution in our country. And second it would probably block initiative and innovation. Seeing these different models I think is a great asset for our country. The important thing for businesses though is that they know that they will be operating in a carbon priced environment.

And they need to be supplied with predictability as far as prices go. So that's why in our system they can look on the web and see exactly where the floor price is going to be next year and the year after so they can put this in their flow sheets and the financial evaluations. I think predictability is the key. The same applies with carbon tax.

Phil Sharp: Well Mr. Premier we want to just say how much we appreciate you taking – I know you have a very busy schedule around the nation's – our nation's capital here today and whatnot. So we want to thank you for that but I want to give you an opportunity if you just want to close with a comment or two before we close out here.

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Philippe Couillard: Well it's an important activity because it's about sharing knowledge and experience and sometimes even things that we could do better. To me the international activity of Québec within Canada is critical. And we have really opened this new file of climate diplomacy as I said earlier in which we want to engage – yes – other governments, but the academic circles, and think tanks such as yours.

So this type of contact for us is absolutely essential and I would just end by saying that our teams at the government level are always available to participate in your activities, participate in workshops or panels on different topics that we touched today. And this is how I think we'll get the right direction together.

Phil Sharp: Well we appreciate it and I tell you it's very impressive what you've done but also I must say it's very impressive in the way in which you think about what to do and those two –

[0:54:00]

Philippe Couillard: It helps.

Phil Sharp: don't go together always. *[laughter]*

Philippe Couillard: It helps.

Phil Sharp: South of the border we don't have that same experience. *[laughter]*

Philippe Couillard: I would just like to say don't underestimate your great –

Phil Sharp: No, no I know.

Philippe Couillard: We have a huge level of admiration for the U.S.

Phil Sharp: Wow.

Philippe Couillard: And the American people. I want to emphasize that.

Phil Sharp: We appreciate that. Thank you so much.

Philippe Couillard: Thank you very much. *[Applause]*

[0:54:22]

[End of Audio]