

## **Informational Hearing of the House Energy and Environment Committee – April 30<sup>th</sup>, 2015**

**Representatives Present:** Vega Pederson, Boone, Holvey, Helm, Reardon, Bentz

**Guest:** Minister Heurtel, Minister of Sustainable Development, Environment and the Fight against Climate Change, Quebec, Canada

**Chair Vega Pederson** – Good afternoon everybody. Welcome. I'm opening the meeting of the House Energy and Environment committee on Thursday April 30, 2015. Thank you all for being here. We have the pleasure today of having an informational hearing talking about the carbon policy in Quebec Canada with Minister David Heurtel, who is, and you have quite a title, the minister of Sustainable Development, Environment and the Fight against Climate Change. We are so pleased to have you hear today. So I'm going to go ahead and open the informational meeting and I know that you are here to share your experience and we are glad that you, even though you weren't able to make it here when we had the climate discussion you made time for us in your schedule today when you were in town. So welcome.

**Minister Heurtel:** Thank you so much Madam Chair and members of the committee. Thank you very much. It is an honor and a privilege to be addressing members of the committee today. Quebec's economy is, to put you in context, is a bit similar to Oregon's actually. I think we have a lot in common and so I think it is very productive to have these discussions on climate change and ways to fight its impacts. We are about 8 million people. We have a very diversified economy. We have a GDP of about 340 billion dollars and as you probably know last year we linked our carbon market which had been established in 2013 to California's through our membership in the Western Climate Initiative. And so we created with California the largest carbon market in North America. And I'm happy to report that we've had two very successful credit auctions—one last November and one just here this year in February. And both auctions gave us a lot of concrete results and showed us that the system really works. First of all, all the carbon credits were sold at or above the base price that was set before each auction. This shows that the private sector has truly engaged in this system and has faith in it. And also, we have seen that the actual value of the credit per ton is actually growing. Originally, when we had our own specific market,

**Vega Pederson:** Excuse me Minister Heurtel. I'm so sorry to interrupt you. We are going to have to stand at ease. I just learned they are going to need us to come up for a vote.

...And we are back in action. Thank you. So sorry for that interruption. Please continue.

**Minister Heurtel:** No problem. Thank you Madam Chair. As I was saying, we have linked our carbon market to California's and over the last 6 months we've had two auctions that were very successful which shows that the system does work and now we have proof of concept, so to speak. The other big news coming off this is that last April 13<sup>th</sup> the governor of Ontario announced their intention to join the carbon market we have with Quebec and California. So now you have Canada's two largest economies representing 54% of Canada's economy and 62% of Canada's population which will now be working under the same carbon market system linked to California's. And so, working under the confines of the Western Climate Initiative, which Oregon is still a member, so there is great momentum right now on this issue because I think now we've seen the concrete results of this system. And while everybody agrees that there needs to be action on climate change. And what we've seen what Oregon has been doing, the bills that are being considered right now so you've been very proactive and we salute what your legislature is doing on these issues and looking at ways to act, because we all know that we are almost behind schedule in terms of fighting climate change effectively. We are in an emergency situation and so the impacts on health are measurable now. We know that there is a direct link

between the pollution that is being caused by GHG (Greenhouse gas) emissions and respiratory disease and other types of health problems. We know also from Quebec's experience we have major problems with coastal erosion. Most of Quebec's population lives near, or very near the St. Lawrence River and we feel the impacts through coastal erosion, the changing impacts on drinking water, on fresh water, more flooding also and the impact on infrastructure which is already costing us a lot financially and the projections show that there will be dire consequences if nothing is done. And so, we could go on, but the thing is we clearly are in front of a conclusion where the cost to do nothing are outweighing greatly any type of investment we do now on the issue of climate change. And that's why Quebec has decided to act in setting up the carbon market and like I said, the...earlier maybe I alluded to the fact that one of the great advantages of the system is that not only does it set up a system where there are actually hard caps, there are limits set on emissions. And these ceilings actually go down, year after year after year, so you are able to measure through effective reporting systems that you can track the reductions. And so that's why our targets between 2006 and 2012 were to reduce our emissions by 6% compared to 1990 levels and we not only achieved that goal, but we surpassed it and we reduced by 8% through our efforts in limiting and reducing emissions. Our goal now for 2020 is to reach 20% reduction compared to 1990 levels. We are confident that the carbon market system that we have set up and now linked with California that we will now link with Ontario will help us achieve those goals.

But the other interesting piece is that is linked to such a system is the fact that it generates revenues. Now the carbon market we estimate will help us raise about 3.3 billion dollars between now and 2020. And that money, by law, must be reinvested in the Quebec economy in different measures to help us achieve the transition towards an economy that is less dependent on fossil fuels. So we will be investing this money in public transit, in electrification of transportation, in energy efficiency measures, in research, in clean tech development to make sure that also we will be able to transform our economy and have a strategic way of setting up Quebec's economy for the 21<sup>st</sup> century which means it's an economy that's less reliant on fossil fuels, but rather being about to develop high paying jobs in industries that are in growth mode and not only help us develop technologies to limit emissions and reduce them, but also create technologies that can be exported. And that's another key component of this strategy is that we are in a position right now where the world is setting up different strategies but the players that are going to be first in setting these strategies up, and actually being first also to develop these new industries, develop these new technologies, will not only help their populations but will also be able to thrive economically through exporting what they've been developing. We are seeing it right now. We have companies that have developed, for an example, an electric school bus. People always say, well school bus, but when you think about it, school buses run on diesel and like one school bus will consume over 8000 liters of, I'm sorry I can't convert it right away in gallons, over 8000 liters of diesel a year. And you multiply that, like in Quebec, we have been 6 and 8 thousand school buses. You multiply just in Oregon, there are plenty of school buses everywhere. Everybody has school buses. Well this has a significant impact. This bus was entirely developed in Quebec by a local company and now they're, not only are the local school boards testing it out, but now other jurisdictions, namely California, are looking at this bus and seeing if it's right for them. So you are seeing this completely new business, new technology being developed, and now there is the potential for there to be exports. The same thing for methane, and dealing with methane. There's a company that's developed a new way to deal with methane which is 25 times more harmful than CO<sub>2</sub>. Methane in coal plants. There's a protocol within our carbon market with California to deal specifically with methane generated by coal mining. And this new technology, this brand new technology was developed by a Quebec company and this company was able to sell it on the US market and actually generate extra revenue from the offset credits that were available, that were generated by the selling of this technology to a US company that was being traded on the carbon market. So you're seeing also, what was before the "theory" behind the carbon market

work which is incentivizing private industry, the private sector in finding more efficient ways of reducing emissions. A lot of times people were talking 'we should take the regulatory approach', but we've seen the regulatory approach have its problems and so with the carbon market you have a way of incentivizing the private sector and finding itself ways to sort itself out and develop new technologies and find the economic benefit of developing these new technologies and at the same time this generates jobs, high paying jobs in the Quebec economy. The same thing for California. And, again, I think this is why Ontario chose also to go ahead and join, because not only is it an effective way of reducing emissions, it's also a great way to develop a modern economy—a modern economy that realize much less on fossil fuels.

And Madam chair, if I may just end on this, because I know we'll have the time to, I want us to have the time to exchange on this. But there's also, I'd like the members of the committee to consider the international movement that is, especially at the sub-national level or infra-national level, the provinces, states, cities are making a real difference in the fight against climate change. And we are seeing it in Canada. If you add what British Columbia is doing with their carbon tax, you now have 75% of Canadians now living under a system which has some form of carbon pricing. And that was done through the Provinces. In the US, there is California, but there is also what Oregon and Washington are doing with California and BC through the Pacific Coast collaborative; you have the RGGI states back east—9 US states together again with a carbon market system already setup; through President Obama's Climate Action Plan, the new EPA regulations which actually could favor setting up of market mechanisms by the states. You are seeing a movement towards carbon pricing. Now I know some people will say 'well smaller economies like Quebec's or Oregon's how can it truly make a difference?' Well, by coming together and working together and harmonizing ways of fighting climate change, not only have we found that it works in developing our economies but also it makes a real difference internationally. Premier Couillard of Quebec organized earlier this month, the first ever summit on climate change in all of Canadian history. And all the Premiers of the provinces and territories were there and agreed to work together collaboratively looking towards Paris and the major UN conference which will occur this December in Paris. And it was so impressive to see that all these provinces and territories, which have very different economies, and some of us rely much more on the fossil fuel industry than others. For example Quebec, 90% of Quebec's energy comes from renewable sources. We're based on hydroelectricity. But even provinces that are not so fortunate, everybody agreed that we should work together and we can effect change. We must effect change. By working together that a carbon strategy is a cornerstone of that strategy. And so, at that summit, UN secretary Christiana Figueres, who's responsible for the organization of this major conference in Paris said that she was going to make sure that the sub-national governments like California, like Oregon, like Quebec, like Ontario would have a day during the COP in Paris and the French government also said the same. The French President Hollande, committed himself to making sure that the sub-national governments would be heard. And I think that's important also to emphasize, that together, when we come together we have a voice. And we have the types of jurisdictions—Oregon and Quebec—that's at the provincial and state level, that real jurisdictions to effect change exist. What I'm doing here today is to share that experience and hope we can continue the work. I met with Governor Brown earlier today. We've worked with the state through WCI, through different international conferences and our wish is to continue the work and hopefully find ways to align ourselves in this very important fight. Not only for us but for generations to come. So again, Madam Chair, thank you very much.

**Chair Vega Pederson:** Thank you so much. Questions for the Minister. Rep. Boone.

**Rep. Deborah Boone:** I have one Madam Chair. Minister Heurtel, does that fund, the Green Fund, does it pay for research for any kind of renewables or is there a list of specific devices or things like that?

**Minister Heurtel:** Well we evaluate, through the Green Fund we evaluate, so it's not limited. It's open. We are looking at research first of all on the impacts of climate change. For example what I told you about coastal erosion and what's going on there. It was through research funded by the green fund. But also we're looking in research regarding electrification of transportation, research in different technologies. We are considering even hydrogen-based vehicles. We are thinking about maybe looking at researching that further. So there's no limit because you can't really. The worst thing government can do is dictate where research could go. I think what we are there to do is to support research and to find the best ways for us to fight climate change and so we are supporting that. One of the things we did is create a consortium of different Universities and different scientists that we are funding in different fields to help us. Not only on the technology side but also on the impact side.

**Rep. Deborah Boone:** Thank you

**Chair Vega Pederson:** Representative Reardon.

**Rep. Reardon:** Very simple question. I apologize for that very strange schedule today, and so thank you for being here. It's really a simple question. I should know the answer to but we've been talking about a lot of money flowing into a fund and all this great spending for research and exciting things that are going on but can you just make it in real simple terms where's the money come from?

**Minister Heurtel:** The way carbon market works, and I'll try and make it as simple as possible. We start from the fact that we need to reduce emissions. It actually begins with reporting. What we are saying is that the largest emitters of greenhouse gas emissions have to report their yearly emissions. And through that reporting we can set the famous cap from the cap and trade right. So the cap is set and it's set a 25,000 tons of CO<sub>2</sub>. So if you're an industry or a business and you emit more than 25,000 tons of CO<sub>2</sub> each ton above that cap you have to buy credits. To be able to operate by law you are going to have to buy credits. And you trade that credit to be allowed to go over that cap. So how do you buy the credits? You're a business and you want to buy a credit. So what happens is that there are auctions. And there are four auctions per year. So we're at our second auction right now...we've had two with California, but previously in 2013 and earlier 2014 we'd had 4 auctions but just for the Quebec market. And those auctions, actually it's the government that auctions off those credits. So businesses...there is a certain number of credits made available at each auction and then businesses register to buy. And so they bid on credits and they have to buy them. That's how government gets money. And then that money is then reinvested, in Quebec's case, in the Green Fund. And we do with the Green Fund, what I explained earlier. The companies now have this credit for a ton of CO<sub>2</sub> and that becomes sort of like a commodity. It can be traded on the open market. So the incentive there is that, obviously if you are a company you want to maybe change the way you are doing business so that you don't have to buy so many credits every year to respect the law. But also if you're doing well—let's say you've actually hit your reduction targets. The credits you don't need you can actually sell on the open market to companies who will need it. What we've seen is that not only is that starting to happen but through the last two years the value of the credit has gone up. When we started the market the credit was about \$10 to \$11 a ton and now we are over \$12 per ton. So there's another economic incentive for performing well. Either changing your technology or using fuels that are less harmful to the environment. What you're doing is you have an economic incentive because then you can trade, you can sell on the open market your credits and make money. I hope that clarifies.

**Rep. Reardon:** It's less unclear.

**Chair Vega Pederson:** Rep. Holvey

**Rep. Holvey:** Following along that line, what has been the experience of the companies that have to purchase these credits in being able to absorb that cost and then pass that on, I assume, to consumers?

**Minister Heurtel:** Well some sectors have not, like for example in Quebec we have a very important aluminum sector. The price of aluminum is basically set on an international market scale so consumers have not necessarily felt that their aluminum siding has gone up because of the cap and trade system. In other cases, for example, the fossil fuels distributors, the oil companies have decided to pass on the cost to the consumer. So it has meant in Quebec a hike at the pump of 2-3 cents per liter. Obviously that has not gone unnoticed. At the same time, I think people understand and they still favor. In our most recent polling in Quebec shows that people are still strongly supporting the climate change action and strongly support what the government is doing. And so they understand and we all understand that, again, that's the cost of fighting climate change. We need to do this. Again, as I said earlier, we have to tackle the effects on health, on infrastructure, on coastal erosion, on the constant flooding, on the extremes—the temperature extremes. We have never had so many horribly cold days than these last few winters. Just like we haven't had so many very, very hot days, so this is affecting our elderly. It's affecting the very young. We are seeing all these impacts and the people clearly understand that these measures need to be taken. And again, I go back to the fact that the other piece of this strategy is that we are reinvesting all this money in our economy to create jobs and to create new businesses.

**Rep. Holvey:** Follow-up with that. Yeah, I appreciate that answer and can see how that has that ripple effect in the economy, but I guess my question is, how do you mitigate, or do you, I guess the impacts to those businesses that aren't able to pass those additional costs on to the consumer who are constrained by international commodity markets or whatever? I mean, I assume if over time the whole world was doing that it would be able to absorb those costs but in the interim they aren't able to pass those costs on and so is there a mechanism set up to provide them some relief?

**Minister Heurtel:** Good question. And actually, yes, we are very sensitive to that issue, because again, smaller businesses were feeling there is some pain in establishing the mechanisms to transition out of the older ways of doing business. For example, last December, we announced an investment package of 350 million dollars. And all that money came from the Green Fund. So 350 million dollars for 13 different measures to help smaller businesses transition. So it could go for energy efficiency programs, help them develop new technologies. So there were different measures to specifically help businesses cope with that transition, so they weren't feeling the brunt of the impacts. Because there are impacts. But that's why the Green Fund gives you that maneuverability. The revenues from the system can be also invested to help companies transition without hurting their competitiveness. And also another factor is that within the market, and I know it is very complex, but within the carbon market system there are safeguards. For different types of industries, each company will receive free credits. So they don't have to buy all the credits that are needed. So throughout the life of the system, so that companies can transition both into the system and live for the duration throughout the system, they are given allowances also. So they don't have to buy so the impact on their bottom line isn't as important as if they have to buy all their allowances they needed to comply. So at the front end there are safeguards where they are given free allowances, but also on the back end with the Green Fund we have provided measures to help them stay competitive.

**Rep. Holvey:** And one final if I may.

**Chair Vega Pederson:** Yes. Of course.

**Rep. Holvey:** And so just seeing that Quebec is similar in size to Oregon, do you think without your alignment with California you would be able to do this independently?

**Minister Heurtel:** I think it is important to align with California. Just as it's important to, we've worked very hard to collaborate with Ontario and we were very pleased when Ontario decided to join the Quebec-California system. I think going at it alone is more difficult. I think a type of system like that, there is strength in numbers. And like for now, if you look at, especially for smaller economies like Quebec's or Oregon's, I think the key is to part of a greater market because it gives you much more flexibility. By now having Ontario join us you are talking about a system that covers over 60 million people. And you have Quebec and Ontario sharing a boarder and having complimentary economies just like the economies of Oregon and Quebec are the same—very diversified, timber, agriculture, high tech—there's a lot of similarities there and so diversified economies like ours which are smaller, working with California definitely has its advantages as well. Being linked to the 7<sup>th</sup> largest economy in the world having the same system also brings a lot of advantages too. But being also with economies that are pretty much the same size, like Ontario's, hopefully Oregon's, Washington state as well is what they are looking at right now you can see that we can conceivably create a very interesting economic space that on the one hand fights climate change effectively with hard caps and reducing emissions, but also generating an economic generator that could be very interesting for everyone involved.

**Rep. Holvey:** Thank you.

**Minister Heurtel:** Thank you.

**Chair Vega Pederson:** Representative Bentz

**Rep. Bentz:** Thank you Madam Chair. And thank you so much for traveling all the way to join us here. The Economists magazine, a few months ago I think, suggested that the United States was doing pretty well in its carbon reduction efforts primarily because of natural gas and that indeed our emissions are falling below the 5 billion tons per year number, yeah I think I have that right. And China on the other hand is 10.3 billion tons per year and climbing. The magazine suggested that the 700 billion ton cap or level—the number over which cataclysm will occur, some people think, will be exceeded on the fly because of what China is doing. When the country of China failed to enter into any sort of decent agreement with President Obama one would wonder why we continue to struggle so mightily. The argument is—if we don't, China won't. I don't think I agree with that, but what do I know? My question to you is this. How do you address these facts and get your country, your province, forgive me because I'm not sure what the right word is, to engage in costly measures given this probability?

**Minister Heurtel:** Well I understand that for the world to effectively change the way we are doing things, major emitters, like China, will have to come on side. I think what needs to be done on the first hand, we have to lead by example, actually, because we are feeling the impacts. I think we have to do something. I think our citizens, and I'll speak for Quebec, I think they want us to do something and they require action. I think it is true of most populations. And I think also, the fact that the US has showed leadership and President Obama has been showing great leadership on this issue and other states—Governor Jerry Brown again yesterday, establishing a 40% target for 2030 in emission reductions, leading the way again. What we are looking at right now is North America, Europe, parts of South America, even Mexico is looking at some sort of carbon market system. You are talking about a major oil producer. And China, while maybe not moving as fast or moving the same way the US has moved, or Quebec, Ontario and BC have moved, the 6 largest cities in China have a Cap and Trade system in place and it is working. And China has declared its intention to set up a cap and trade system for the entire

country by January 21<sup>st</sup>, 2016. I think right now, the way to look at this is the economic way, because right now there is going to be cost for China and China is feeling it right now. There is a cost to not doing anything. If you look at the pollution in China it is having a major impact on health. It's having an impact on its economy. And right now, just these past few months, they've become the largest producer of solar cells in the world. They are transitioning their economy. So while I agree with you that China may not be moving as fast as other jurisdictions, you're clearly seeing China moving in this direction and I think that the argument that says, well smaller...like a province like Quebec, we are responsible for 11% of Canada's total emissions. Our emissions count for less than a tenth of a percent of the world's emissions...'So, why are we doing all this?' Because we have to act. Because we can't just stay on the sidelines. And the fact that on the one hand we are leading the way we are changing the way Canada is looking at climate change. We have a federal government that isn't moving. But now, like I said, with Ontario, with BC, 75% of Canadians now living under some kind of carbon pricing. So things are changing. And while Canada's emissions count for 2% of the world's emissions we are still the 9<sup>th</sup> largest emitter in the world. There is something to be said about being an example. And I think the US is going along that way. California is doing it. Oregon, Washington are doing it in their way. They are moving along. The RGGI states are doing it as well--there's another carbon market in the Northeast that is working. And so there is action that needs to happen. We need to fight this. I think there is a worldwide movement happening. By the end of this year you will have probably 40% of the world's population that will be living under some sort of carbon pricing system. So this is the way to go. Do we want to be on the sidelines of the economic benefits that will come out of this? I think no. Because not only do we need to act now, because there is an emergency. 98% of all the science on this subject is clear that we must act before 2050. Not only do we need to do that, but also the ones that will act now will reap the benefits, not only from the environmental standpoint for their populations, but from an economic standpoint as well.

**Rep. Bentz:** Follow up. It would be interesting to know how much money in dollars that is being spent on research and development without regard to the nature of it, as a result of your country's activities. Can you just give us one year's budget of R & D efforts on this?

**Minister Heurtel:** So specifically, I can give you the number on academic research. You've invest, just in the last year, over 5 million dollars just in academic research projects last year. It's going to be the same amount this year as well. Now for indirect research, I would call it, I don't have that specific figure, but we could get it to you, absolutely.

**Rep. Bentz:** Thank you.

**Chair Vega Pederson:** Representative Reardon. Did you have a question?

**Rep. Reardon:** I did. A couple of other questions. We could probably talk all evening.

**Chair Vega Pederson:** And I do think the Minister has an important...

**Minister Heurtel:** No please go ahead.

**Rep. Reardon:** Do you have a feel for the size of the organization required to manage this system? How much did government grow, basically?

**Minister Heurtel:** Government, itself, didn't grow very much. Honestly, WCI, Inc., which is an independent entity, it's a non-governmental organization, administers the carbon market, so government itself did not grow as a result of setting up the system. And in terms of personnel dedicated specifically at the ministry of the

Environment, you're talking about a team of less than 10 people that manage the whole climate change portfolio. So that goes beyond just the carbon market. It's not a government growth program. Actually in terms of its cost to government, it's performing very well.

**Rep. Reardon:** May I have one more?

**Chair Vega Pederson:** Yes, follow up.

**Rep. Reardon:** Canada is so blessed with so many natural resources. You mentioned the hydropower and so forth. There's also a great deal of oil and gas being produced. Are the producers paying in to the Green Fund, or how do they fit into this system?

**Minister Heurtel:** Quebec itself, we don't have specific oil...we have very, very, very small oil production. It's almost negligible. Oil distributors are submitted, so it's a different system. Obviously it is not 25,000 tons of emissions. It's actually linked to the volume of their distribution. If they distribute more than a certain level, they are submitted to the system. But in terms of oil producers themselves, you're talking about Provinces like, maybe Alberta or Saskatchewan, there is a carbon pricing system in Alberta that is in place. It is different than the traditional cap and trade, but it does exist. So it's very interesting right now Alberta is in an election campaign so we'll find out what the next government's attitude is towards carbon pricing. But what I can tell you is that the previous government was very, very open to having discussions with Ontario, Quebec, BC and the rest of the provinces on this issue. Because I think there was an understanding that even the fossil fuel industry needs to work within the confines of some form of carbon pricing for it to be able to continue to develop. And that's linked, maybe, to the Representatives question on China. There's going to be an economic cost to inaction. So companies, or governments that keep on going the same way they've been doing business before are going to get hit because other jurisdictions won't want to do business with them anymore. They will be at a competitive disadvantage doing nothing. And I think governments like Alberta are recognizing that. And that's why the previous government's minister of the Environment, I had very productive exchanges with him at the last COP in Lima last December. And they were very interested in seeing how they could collaborate, because they could see the economic disadvantage of inaction and the economic opportunities of working within a system.

**Chair Vega Pederson:** Representative Helm.

**Rep. Helm:** Thank you Madam Chair. Minister, thank you for being with us. Can you give us a picture of the political environment just before the decision was made to team up with California and can, relatedly, probably before that, was it a legislative decision? Was it an executive decision? What type of mechanism was used to make the decision?

**Minister Heurtel:** The mechanism, it started through... it was executive. It was in the mid-2000s. The then Quebec Premier, Jean Charest, who was a former Federal Environmental Minister in Canada actually set out a very ambitious agenda to fight climate change. And part of that agenda was setting up a carbon market. And then, he presented his strategy. You need strong leadership from the Executive. He presented his climate action plan and the government's climate action plan and went the legislative route. And so there were several statutes that were enacted to setup the mandatory reporting of emissions and to set up what ultimately became the carbon market system. It started with leadership from the executive which was almost simultaneously translated into legislative action which created Quebec's carbon market and then the necessary regulatory tools to link with California.



**Rep. Helm:** Follow up?

**Chair Vega Pederson:** Follow up.

**Rep. Helm:** And so the population, the citizens of Quebec, what would you gauge their reaction at the time? Absolutely supportive? Or cautious?

**Minister Heurtel:** I think honestly, I think that it was something that in some regards came a bit under the radar. It didn't stir up a lot of passion at the time. It was something that was received very favorably, I think, over the last two years when it became real. When there was an actual system in place, there was actual money being raised and there were actual companies having to submit, having to buy credits, then there was a lot of attention on the market, especially when the fossil fuel distributors were submitted. This was as of January 1<sup>st</sup> of this year and so people saw the impact at the pump. So I would say the actual debate, or the actual questions raised in the population, took on a different perspective over the last two years. Because previously it was just something that was coming, but it was still in the setting up stages. It took a very long time to get it done. There was a previous climate action plan but it relied on taxes, or royalties that weren't directly linked with emissions reductions. Now that we've set up the Carbon Market, now obviously it's taking on a much broader impact. And so we have to do a concerted effort to explain to the people what this money is for, what it's doing. We have to explain, we have to invest a lot in communication and education, also, about the impacts of climate change and what does it mean in the people's lives. So it's not about polar bears and ice caps, it's about your kid's respiratory ailments. It's about this flooding you're going through every other year. It's about infrastructure costs. It's about coastal erosion, about your house maybe disappearing in a few years because it's too close to the water, even though 20 years ago it looked like it was fine where it was. So that's now, the fact that we have real drinking water issues to deal with now. Where, previously, even though we have 3% of the world's fresh water this was never an issue. But now, people are realizing it. So now government, and also it's not just the government's job, it's a partnership with everybody that has a stake in this, which means all of us, coming together and explaining why we are doing this and also the economic benefits of doing this and the fact that it is creating jobs. The fact that it is creating high paying, better jobs. That it is creating new industries. So we can celebrate successes as well as showing real tangible results in lowering our emissions. It's an ongoing process.

**Rep. Helm:** Thank you.

**Chair Vega Pederson:** I have one question for you before we let you go. This has been so interesting, so thank you so much. I think we could probably continue to ask you questions all evening. I wanted to talk a little bit, because I know a little about what happened in California in terms of equity issues when the cap and trade program has been in place and how there are funds and ways to compensate for that for people who are lower income who are impacted. I just wanted to know if you can go into some details about the experiences you've had in Quebec.

**Minister Heurtel:** Well, in Quebec, we have quite an extensive social net already in place. The thinking behind using the funds that are generated by the carbon market, the thinking was, to use it specifically for economic development. Whereas other jurisdictions have used, just like California, have used some of the revenues specifically to target certain social programs, which is fine. But from our perspective, Quebec already has a pretty extensive social net for the least fortunate in our society and so what we really need, especially in the last few years where we've had, and I'm sure we all understand this here in Oregon and everywhere, we've had a very hard time economically, especially with the government trying to find and raise revenue while the costs keep raising. So we, with the money coming from the Green Fund, decided that this would be one of three of

our major pillars of our economic development strategy to get out of this slump that we've been in, collectively, for a while now. We decided to really invest in economic development like I said, and I won't repeat what I described earlier. But we think it helps us, because we need to develop revenues from a stronger economy that will allow us to fund those social programs that we already have. That's the real issue. We need to generate a stronger economy to pay for helping out the least fortunate in our society.

**Chair Vega Pederson:** Thank you so much. I think you have given us a lot of food for thought, a lot of information on how this is impacting an economy that is of a similar size of Oregon and the benefits of looking at a regional and sub national basis. It's been amazingly...it's just been great to have you here and we really appreciate, again, you taking the time to come down here and especially dealing with the back and forth of the schedule. It's not just been this committee. It's been all day long as we've been trying to figure out lunch and everything. So I really appreciate that. Rep. Boone.

**Rep Boone:** Thank you Madam Chair. Minister Heurtel and Elaine and Joelle, thank you very much for making the trip up to Oregon. I know you had to leave very early this morning and it is part of a very busy week so you know what the Russian's say...You get all the sleep you need when you die. Thank you so much, both of you.

**Minister Heurtel:** Madam Chair, members of the committee, thank you. It has been an honor and a privilege and I hope we continue working together on this very important issue. But thank you. It was a thrill to be here and to exchange with you.

**Chair Vega Pederson:** It's great. Thank you so much.