HANSARD

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COMMITTEE

ON

PUBLIC ACCOUNTS

Wednesday, November 5, 2014

LEGISLATIVE CHAMBER

Department of Energy

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Public Accounts Committee

Mr. Allan MacMaster, Chairman
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Mr. Joachim Stroink
Mr. Tim Houston
Hon. Maureen MacDonald
Hon. David Wilson

[Mr. Ben Jessome replaced Ms. Margaret Miller for a portion of the meeting.]

In Attendance:

Mrs. Darlene Henry
Legislative Committee Clerk

Mr. Michael Pickup
Auditor General

Mr. Terry Spicer
Assistant Auditor General

WITNESSES

Department of Energy

Mr. Murray Coolican, Deputy Minister
Mr. Chris Spencer, Executive Director, Business Development & Corporate Services
Ms. Nancy Rondeaux, Manager, Electricity and Renewable

House of Assembly
Nova Scotia

HALIFAX, WEDNESDAY, NOVEMBER 5, 2014

STANDING COMMITTEE ON PUBLIC ACCOUNTS

9:00 A.M.

CHAIRMAN
Mr. Allan MacMaster

VICE-CHAIRMAN
Mr. Iain Rankin

MR. CHAIRMAN: Good morning everyone. I call this meeting to order, and I'd like to begin with introductions of members of the committee.

[The committee members introduced themselves.]

MR. CHAIRMAN: Thank you, and before we introduce our guests this morning, I just wanted to acknowledge Haley White, who is a Grade 9 student and daughter of Janet White who works at the office of the Auditor General. Today is Take your Child to Work Day, so she's here with us for that. Thank you for joining us, Haley.

Ms. Miller.

MS. MARGARET MILLER: I would like to make an introduction. I also have two young ladies in the east gallery that I'm really happy to introduce, who have come with me today. One is my granddaughter, Paige Christensen, she actually worked on my campaign an awful lot last year and did data collection - and she was only 10 years old at that point, so that was pretty awesome. The other girl is Erin Houseman, from Enfield, and she's here job shadowing as well today.

MR. CHAIRMAN: Excellent, nice to have you with us.

Today we have the Department of Energy with us and we're discussing energy development and opportunities. I'd like our guests to introduce themselves.

MR. MURRAY COOLICAN: Thank you, Mr. Chairman. With me is Chris Spencer, Executive Director of Business Development and Strategic Planning, and he has brought his daughter to work today, Mairi, who is at Gorsebrook. Welcome Mairi - my daughter had a baby a couple of days ago, so I'm not bringing her to work today - also with me is Nancy Rondeaux, Manager, Electricity and Renewables.

I bring excuses from Sandy MacMullin, Executive Director, Petroleum Resources, who is on a well-deserved holiday playing baseball in Florida, and Bruce Cameron who is at the International Ocean Conference on Energy, which is happening here in Halifax today.

If I could begin with some remarks - the first thing I'd like to say is that in this process you always see deputy ministers, and in the Department of Energy we have an incredible group of employees who are a lot more knowledgeable about most of the issues I'm going to talk about today than I am. So if there are questions that I can't answer, or Chris or Nancy are unable to answer, we'll get back to you.

This is a highly technical field and I don't pretend to know everything about it. A lot of the work that's done in government on energy issues is dependent upon the staff who do excellent work - they're extremely committed to building a Department of Energy that is innovative and collaborative.

We also work together with industry, citizens, and all levels of government, to ensure the innovative and responsible development of our energy resources. We are a province with strong opportunities for growth across our diverse energy sectors, including petroleum offshore, tidal, and electricity, to name a few.

This government is actively working to establish the best conditions to make these opportunities a reality. APEC's 2014 outlook on major projects has Nova Scotia leading Atlantic Canada in investment potential for the first time since the early 80s. Energy-related projects continue to be a key driver of investment according to APEC. Statistics Canada recently suggested that much of our economic growth next year will be a direct result of the energy sector.

We continue to see many businesses from around the world coming here to explore our vast natural resources, and the ICOE conference that's happening now is a good example - anywhere from 700 to 800 delegates from around the world have come to Nova Scotia - and I might add, of the breakout sessions yesterday, by far the greatest attendance was at the session on Fundy Tidal.

I'd like to talk some more about some of our recent successes, and I just mentioned tidal - this is actually the first time that conference has been held outside of Europe and so it was good to see we got a good crowd. I know that when conferences are held in Halifax from across Canada they get their best attendance, but it was nice to see the same happened for an international conference.

This past year we've redoubled our efforts to take advantage of the opportunities associated with tidal. We have the right resources, the right regulatory oversight, and we're doing some work to improve that, and we have financial incentives and infrastructure to attract international interest in our province. The sector will be a catalyst for major economic activity in Nova Scotia, along with a knowledge and technology base that is in demand worldwide.

The innovative approach that is being developed in Nova Scotia will place us at the leading edge of technology to develop this clean, renewable global source of energy. Investment in our province alone in the next few years is going to be in the millions of dollars, and we also have the opportunity to export our knowledge and expertise. We've attracted companies with impressive resumes in tidal technology and extensive experience in the marine energy sector.

The other thing that's really important is the work that's being done by FORCE, and you may have noticed in recent days some of the media coverage of the installation of a communications cable and four transmission cables that connect to the grid. That is a huge accomplishment in the Bay of Fundy, to put those cables in the water, and the initial work that was being done was to look at bringing in a special purpose-built vessel from somewhere abroad at a tremendous cost on a daily basis to do the work.

In the end FORCE decided to go with a local vessel, with a local company, with local employees, and it appears that small is better in the Bay of Fundy, and taking that chance has paid off - they were successful, they saved money, and we demonstrated that local companies using local employees were able to get the job done and get it done under budget and on time.

Offshore development is one of our most exciting opportunities for growth in Nova Scotia. We have two active offshore petroleum projects, Sable and Deep Panuke, producing up to 500 million cubic feet a day at peak production. That means that Nova Scotia is net exporter of natural gas - I want to repeat that - is a net exporter of natural gas. There has been a certain amount of talk around recently about how we just take gas from other places - that is not the case today.

We are investing $12 million in new geoscience data and marketing over the next four years and, by 2017, provincial investments in offshore geoscience will have totalled $33 million. The Progressive Conservative Government of a number of years ago, under Premier MacDonald, the NDP Government under Premier Dexter, and today's Liberal

Government, have all decided to invest scarce resources in our offshore and it has paid off - those investments attracted more than $2 billion in work commitments by Shell and BP Canada.

Shell Canada completed its seismic work last year and is reviewing the data collected over 10,000 square kilometres, and they are on schedule to begin their drilling program next year. Shell has brought two other companies, Suncor and ConocoPhillips, to their exploration team in May. That represents two companies who are becoming joint venture partners with Shell and taking together - ConocoPhillips is taking 30 per cent, Suncor is taking 20 per cent, so they're taking 50 per cent of a program that has a $1 billion commitment.

In May two more companies, world-class companies, in addition to Shell and BP have said we're in for offshore Nova Scotia. That's a significant achievement. BP has just wrapped up the first round of their two-year seismic program in Nova Scotia, and BP estimates they may be in a position to begin drilling exploratory wells on the offshore block sometime in 2017.

Our department is also working with the federal government to ensure that we have the proper regulations in place to monitor the activities as they come on. You will know that there are two pieces of legislation that were passed in this session that contribute, one on occupational health and safety and the other primarily increasing the liabilities that oil and gas companies have to post - the general theme of that bill was to improve the environmental regulations around offshore oil and gas activity.

There is a current bid process in place and we're expecting the results in the next day or two. The range of possibilities is kind of interesting because a year ago we did a call for bids and we had zero bids, for a total of zero dollars; the bid before that we had two companies that bid a total of over $1 billion. So this is a long-term process; there are no guarantees - the range of expectations kind of goes anywhere from zero to $1 billion or just over $1 billion.

We are also building on the work of the Play Fairway Analysis to maintain the momentum and interest in our offshore. That involves both geoscience research but also it involves a lot of - we call it marketing but it's really sitting down with the oil and gas companies and explaining what we've got, what new information we have. There are some companies that are still looking for explanations about the Play Fairway Analysis, but a lot of the companies have spent time with that and when they see us they are usually saying, so what have you got that's new?

I should add that in the last number of years the confidence that the offshore companies have in our team of people who are talking to them about the results of the geoscience work has grown exponentially. That's because we approach them with real

information and we're credible in the way that we present it. It's not what you normally think about as marketing.

I want to talk a little bit about LNG. We now have three proposed major LNG projects in the works, and you may have seen in the papers recently that the Bear Head project has just doubled their plans. One of the advantages of that project is that it is easily scalable, so they are able to do that. All three have continued to progress in the last few months. There are two proposals in Guysborough County, one in Goldboro by Pieridae, and another in Melford by H-Energy, and I just referred to the Australia-based LNGL that recently purchased the Bear Head LNG project outside Port Hawkesbury.

So why are these LNG projects here, why are they coming to Nova Scotia? The first is the existing pipeline infrastructure, so they understand, they know quite well, and we've talked to them about the potential of our offshore, they know the existing situation. They also know what's happening onshore - they see our connectivity to New England through the Maritimes Northeast Pipeline and also to western Canada, also through the Maritimes Northeast Pipeline and other pipelines connecting us to U.S. supplies of gas and to western Canada gas, as well as the offshore.

They are also here because they see the communities of Guysborough County and Richmond County as communities that are welcoming to industrial development. They see what exists there and they understand it is a welcoming climate; they see the Nova Scotia Government as a welcoming government to this kind of investment.

Onshore - understanding and exploring our onshore potential is also important. We currently have an onshore coal/gas exploration in Stellarton, a project which recently flared and could become the first commercial onshore gas production in our province. So far East Coast Energy has invested more than $6 million in their drilling program and enlisted local support services from approximately 80 companies.

There has recently been a lot of discussion here in the Legislature about the legislation for a moratorium on high-volume hydraulic fracturing, and there have been a lot of questions for my minister in Question Period. I'm not sure I have much more to add to what has already been discussed in the Legislature, but you can try.

Actually, Mr. Chairman, I was wondering whether you want to rule whether it's appropriate for me to answer any of those questions. I'm not familiar with the rules of the Legislature.

MR. CHAIRMAN: We will soon have to move on to questions.

MR. COOLICAN: Okay, okay, let me spend some time on renewables. Our province is well on its way to meeting and exceeding our renewable energy targets, and

that's an incredible accomplishment for the Province of Nova Scotia. Sorry, I should stick to my text.

Our dependence on coal and related high carbon fuels has shrunk from close to 90 per cent in 2007 to 57 per cent in 2012. In the not-too-distant future it will fall below 50 per cent. We will easily exceed our renewable energy targets both for 2015 and 2020 and we are on track to meet federal environmental targets.

Renewable energy potential is an important part of our electricity mix. It's an area we have made great progress in with our community fee and tariff program, with the industrial wind projects that also have been built and are continuing to be built. We've also attracted substantial community involvement, innovation, and investment.

Out reputation for innovation and renewable energy is also attracting some impressive research projects. This summer the department announced an innovative project led by Danielle Fong, co-founder and chief scientist at Berkeley, California, LightSail Energy. She is a Dartmouth High School graduate, and she's looking for a new way to store wind power so the resource can still be used when the wind isn't blowing. This project represents the type of innovative spirit we need in our province to grow our economy and our government, and my department is excited to be part of this work.

In the beginning of 2014 we also launched the electricity system review that is a key step in transforming our electricity market. We started by consulting with our stakeholders and have recently engaged directly with Nova Scotians on our energy future. Our minister just completed eleven public meetings across the province, where several hundred Nova Scotians shared their views on a wide range of electricity issues - and that will help us set policy for the future.

I was impressed by the level of engagement and interest of Nova Scotians and look forward to the results of these efforts. I'm happy to take your questions.

MR. CHAIRMAN: Thank you, Mr. Coolican, and we will move to Mr. Houston, of the PC caucus, for 20 minutes. Mr. Houston.

MR. TIM HOUSTON: Thank you for those introductory comments. I too am pretty excited about what I hear about the hydro opportunities and the fact there are local companies involved in that - also in the offshore stuff and onshore as well with East Coast Energy. I'm pretty impressed with what they have done and particularly impressed with what Julie Cohen has done there, almost single-handedly moving that project forward, so I have a lot of respect for those operations.

I don't want to disappoint you today; I do have some questions about fracking and on onshore development. We have 20 minutes. I do have a number of questions to run

through, and I'm really anxious to hear what you have to say about some of these questions, but we'll need to keep the comments brief if we can.

There are four active exploration and production agreements in the province for onshore development - is that correct that there are four?

MR. COOLICAN: There are actually ten onshore agreements: three that are coal related - Stealth, Donkin Tenements, and East Coast Energy Inc.; seven petroleum - Forent was one of them and they made a decision a number of months ago to withdraw; Eastrock has two; and Elmworth and St. Brendan's have three.

MR. HOUSTON: It could be that those ten instances are covered by four agreements. There's probably some type of master agreement, but in any event I understand that parcels are nominated by industry and then the companies are able to bid on those parcels by committing a specific amount of work over a certain amount of time, and that's kind of the way it works - I think I see you nodding.

For those companies that you mention, are there any of those companies that haven't spent up to their bid amount yet? So what they would have bid for the parcel, have they made those investments?

MR. COOLICAN: I'm not sure I'm allowed to give you specific information on what companies have spent.

MR. HOUSTON: Just in general - I'm presuming that some of those companies wouldn't have spent up to their bid.

MR. COOLICAN: Yes, that's right.

MR. HOUSTON: The reason I ask is with the ban on high-volume hydraulic fracturing expected to be legislated, will any of those companies get out from under making that full work commitment, so the ban will have an impact on what those companies were planning to do? Has the department given any thought to - well if company X was planning to spend this much money in this province on these activities and now we've just legislated this ban, how will that impact it and can they possibly be expected to achieve that spending target?

MR. COOLICAN: That's hard to answer in a hypothetical situation because the province has not banned all onshore oil and gas activity. In the time that I've been deputy minister, even before the previous government instituted the moratorium that it instituted, there was no fracking activity. There were a number of traditional wells drilled; for example, Forent drilled two wells in their Alton block and their target was oil. When you talk to their geologist, he'll tell you about the positive things that happened, but there was not a commercial discovery.

There was another well drilled by Eastrock that did not go to full depth, and then there was the well that East Coast Energy Inc. drilled - two wells for coal-bed methane, and you know the results of that.

MR. HOUSTON: I guess what I'm assuming is that some of those companies that bid on parcels would have had a plan as to why they were bidding on the parcel and what they were going to do, and I suspect that some of those planned activities would have involved fracking. I guess what I'm struggling with is if a company bids on something with the expectation that they're going to do some hydraulic fracturing on that and then the rules of the game get changed midstream - have you given any thought to the ramifications of that?

MR. COOLICAN: To our knowledge there were no planned activities that would be covered by the legislation at this time. A number of the companies are continuing to do geoscience research and to get a better understanding of what their interests are, but until the legislation is passed and the definitions under the legislation are put in place, it would be difficult to say what the companies will or won't do. Their leases are still active for oil and gas exploration and potential development.

MR. HOUSTON: Fair enough. I guess it might be hard to say what they will or won't do, but it will be less hard to say what they won't do after this ban goes through and they won't do high-volume hydraulic fracturing.

I just have to believe if you look at the makeup of some of those companies that bid on parcels of land here that it wouldn't be a stretch to assume that they were planning on doing hydraulic fracturing, because these companies will have done it in other jurisdictions, and it would be a tool in their tool box that they would be looking to - they would have bid on a parcel of land knowing that if the geology proved itself out they would use a tool from their tool box to commercialize the resource, and the ban will now take a tool out of that tool box. I was just looking for your comments on whether or not a tool is being removed that would most likely have been used, a logical person would assume.

MR. COOLICAN: When it comes to predicting oil and gas companies logic is not always the top thing. Geologists are kind of optimistic, but let me give you an example. The company that proposed to drill in the Lake Ainslie area, there were people who looked at the background of that company and jumped to the logical conclusion that that company was going to propose hydraulic fracking. That company had no interest in hydraulic fracking there; they were interested in oil because there had been oil seeps in that area and there had been drilling in that area for oil before. So you can't, based on the history of a company, automatically assume what they are going to do.

MR. HOUSTON: That company - I believe that was a company called PetroWorth?

MR. COOLICAN: Yes.

MR. HOUSTON: They're no longer active in Nova Scotia.

MR. COOLICAN: No, they're not.

MR. HOUSTON: They left the province around that time. When they left the province, did they approach the province for money back on their bid?

MR. COOLICAN: No.

MR. HOUSTON: They just left the province. They walked away from the parcel of land they had bid on - is that how that happened?

MR. COOLICAN: That's right.

MR. HOUSTON: So I am curious whether or not the department has done any analysis on the companies that are active onshore, ten of them, I guess, ten areas - three coal, seven petro. In the analysis, internally - not that you need to disclose that today, but just as a general statement on how much those operations have spent towards their bid amount, and given any thought to whether there's any risk that some of those companies will now say, well, you've changed the rules and we wouldn't have bid on this parcel had we known that, we're out of here as well and we want our money back.

MR. COOLICAN: The department did some legal work on what risk there might be and we determined that the risk was minimal. I mean, there is always risk of legal action but we felt that we would have a pretty strong case. We are in regular touch with the companies that hold leases. I can't give you specifics on the content of those conversations because it's important that we not disclose their business plans, but I think a number of them have - St. Brendan's Exploration in particular has said publicly that they're going to wait and see what the regulations are that come out of the bill before they make decisions on their plans for the future.

MR. HOUSTON: So there's a potential impact on that specific company? They don't know what they're going to do, if I understand what you're saying.

MR. COOLICAN: They have not announced any plans prior to the legislation and they have not announced any plans since the legislation of what their intention is.

MR. HOUSTON: Just while we are on that, I guess, I did have a chance to look on the department's website on some of the questions and answers, and there is a question on the website that says: Won't this ban hurt Investment Nova Scotia? And the department's response is that Investment Nova Scotia energy projects have been increasing and these investments will not be affected by this decision.

Is that still a fair statement, based on what you just said about a specific company that is already out there, and the media saying they don't know what they're going to do? It sounds like they're deciding how their investment…

MR. COOLICAN: I think what I suggested is that they had not disclosed any plans prior to the legislation, they had not determined what their plans were prior to the legislation, and they're still not prepared to disclose what their plans are. They are going to look at the regulations.

What drives this industry is the geoscience. For St. Brendan's or other companies that are involved it's looking at the geoscience that really drives a lot of their decisions. That's where they have to start. When you look at the investment in energy, the investment in oil and gas in the province, it doesn't take too many billion dollar bids to increase substantially the investment in energy in the province.

MR. HOUSTON: When do you expect the next call for bids to be on onshore areas - is there any talk of bids on onshore parcels?

MR. COOLICAN: Not at this time. We think it will be important to have the regulations completed and understand what the reaction of the industry is and what they're thinking before we go on. We have some work to do on the onshore atlas . . .

MR. HOUSTON: Yes, I have a few questions about that when we come to it.

MR. COOLICAN: . . . so I think until we've done more work on onshore atlas and made that available to industry, because again, as I say, it starts with geoscience, it will be important for us and the industry to have a better understanding of the resource that is there. One of the . . .

MR. HOUSTON: If I can just stop you there. I am curious, you mentioned the regulations and I do want to ask you, do officials in the department believe that hydraulic fracturing can be done safely in Nova Scotia?

MR. COOLICAN: The department does not have an official position one way or another.

MR. HOUSTON: If you look at the website, in fairness, there is a question and answer section on the Department of Energy website - I don't know if you would be familiar with those questions and answers or not, but . . .

MR. COOLICAN: I'm sure you are going to tell me what's in them.

MR. HOUSTON: Well there is a question on there (Laughter) No, no, I'm trying to be fair. It might be the case that you don't even write these answers, someone in the

department did presumably. But there is a very specific question on there and that's why I asked, do you think hydraulic fracturing can be done safely?

And the answer is like a Question Period answer last night - it is very cagey, but I believe it says it can be done safely. The answer is: While hydraulic fracturing has been done safely at many sites, there have been instances where regulations haven't been followed or there was insufficient monitoring.

I read that to mean that hydraulic fracturing can be safe provided regulations are followed and there's sufficient monitoring. It's kind of as simple as that, and that's why I was curious. It sounds like you probably believe that as well - would that be the position of the department?

MR. COOLICAN: I think the minister has said a number of times that he believes that with good regulation and proper monitoring hydraulic fracturing can be done safely. There are some outstanding questions about the impact of hydraulic fracturing that were raised by the Wheeler Commission, that were raised by the federal group of scientists that did work on that, and there are other questions of a similar nature in other places.

MR. HOUSTON: I do accept that we need more information, but I guess what I'm struggling with is how are we ever going to get that information, and I'm surprised we don't have it by now because back in April 2011 the department announced a review of hydraulic fracturing in the province, so that is going on three and a half years ago that the province has been reviewing hydraulic fracturing. Now here we are with a ban saying we have to go get more information. I don't know how many wells have been fracked in Saskatchewan and Alberta in the last three years, but I would say it's quite a few and here we are still trying to figure out what we're going to do.

I do have some questions about that review that was started in April 2011. Presumably that was an active file with people assigned to it reviewing hydraulic fracturing during that time?

MR. COOLICAN: Yes.

MR. HOUSTON: Does the department have any estimate of how much that review would have cost?

MR. COOLICAN: I can get the figure of external costs. There were a couple of consultants who were hired to help with a jurisdictional review. There were staff involved from the Department of Environment and the Department of Energy, and we wouldn't have an accounting for the cost of staff time but I can . . .

MR. HOUSTON: But it was an active review.

MR. COOLICAN: It was an active and serious review, that's right.

MR. HOUSTON: I'm just wondering how three years into that process, plus the Wheeler report - and then we have the department saying we don't have enough information, and we have people writing into the Law Amendments Committee saying that with Bill No. 6 it looks like Nova Scotia hasn't done their homework, and these types of things . . .

MR. COOLICAN: We also have a group - I've forgotten the name of the group - of esteemed scientists doing work for the Government of Canada, doing a review of the same question and having outstanding questions at the end of it. They had information from British Columbia, Alberta, Saskatchewan, and Manitoba as well - there's fracking that takes place in Manitoba, so we're not the only ones that have questions about the process. I think the other important piece of this is the uncertainty and the questions that have led to opposition to the procedure from a lot of communities and organizations in the province, and the government has decided that it's important to get more information and to engage more with Nova Scotians on these issues.

Our first step will be to work on the geoscience atlas, to provide better information on where the opportunities are and where they . . .

MR. HOUSTON: So when the review started back in 2011, did that include some geological work?

MR. COOLICAN: No, it didn't.

MR. HOUSTON: There was no geological analysis as part of that review?

MR. COOLICAN: There was some work being done in the department but, to be very frank, the department, certainly from the time that I've been involved as deputy minister - and I think it goes back to previous times and previous governments that when Premier MacDonald looked at the oil and gas industry in Nova Scotia, he said I'm going to put $15 million into geoscience research. The decision the government made was to put that money into offshore geoscience research, as it represented the best opportunity for the province.

He didn't say I'm going to take $13 million and put it into the offshore and put $2 million into onshore, he said I'm going to put all $15 million into offshore geoscience. I think that was a good decision and the result is that we now have bids totalling more than $2 billion in an industry that people were saying was on the decline. There was no interest on the part of the offshore companies and that was a courageous decision by Premier MacDonald, and Premier Dexter kept up that investment and was a strong supporter of that and . . .

MR. HOUSTON: So it's now time for the Premier to make a similar commitment onshore?

MR. COOLICAN: . . . Premier McNeil is doing the same thing with the offshore.

MR. CHAIRMAN: Order. Sorry, we've just run out of time. We'll move on to the NDP caucus, and Ms. MacDonald.

HON. MAUREEN MACDONALD: Thank you very much and good morning. Actually, that was one of the questions I was looking for a little more specificity around the points that you were just making.

In your opening remarks you made reference to three successive administrations having invested scarce resources, and we know there's always a concern about investing public money. What I was wondering was if you could be very specific about how much has been invested over that period of time, what the risks were, and what the benefits have been so that we are really clear about how money has been spent, how much, and at what point in time?

MR. COOLICAN: The first work on the Play Fairway Analysis started in 2008 and it was $15 million that was spent on that study. There was also some continuing - as I mentioned earlier - I would call it marketing work, which was consultation with the oil and gas companies to try to get an understanding of what the problem is with the Nova Scotia offshore. What should we be working on? The answer came back that it should be geoscience. I don't have the numbers on what was spent on that work at the time that the Play Fairway Analysis was going on.

The Play Fairway Analysis was managed by an organization which now goes under the name of the Offshore Energy Research Association, which is an organization that has a board that includes representatives from our universities as well as some private citizens and a couple of representatives from the government. They oversaw the development of the Play Fairway Analysis and they made a decision early on that it was important to get the best geoscience expertise in the world. They wanted companies to do the work so that the major oil and gas companies would say, yes, I know that company, I know the guy or woman who is leading the research and I trust them, so that when the results came out, and we took those results to the government or to the oil and gas companies, there would be some instant credibility in addition to representing the quality of the work and that they would pay attention to it.

When the Play Fairway Analysis work was completed, there was then a marketing effort that began. It was released in 2010 and there was an effort made to provide that information to the oil and gas companies.

I should add that part of the process of the Play Fairway Analysis involved taking the preliminary results, taking them to a peer review session with the oil and gas companies to say, what have we done wrong? What have we done right? Have you got some suggestions for further work? How can we make this better? That began to establish the credibility of the Government of Nova Scotia in terms of geoscience issues with these companies, which I referred to earlier, and that credibility is very important.

Once the Play Fairway Analysis was released - and this was under the NDP Government of Premier Dexter - it was released and it was decided to make this Play Fairway Analysis available to everybody. Obviously that includes the oil and gas industry, but anybody, any individual, can go on our website to pick up the Play Fairway Analysis. It's not light, bedtime reading so I wouldn't recommend it.

There were a number of things that work did. It took the results of drilling and seismic activity that had gone on up until then and put it together, which is something the government could do but private companies would not be able to do. Based on that information, the consultants developed new theories about what was happening offshore. I'd ask you not to ask me any detailed questions on what those theories are because I'm not a geoscientist and I'd just get messed up.

So that information was then taken - that theory - and applied against the drilling results that had been achieved to date. In a sense the government was saying to the industry, here's why this well failed, because of what we think is happening here. I often say to the industry, it's the one time where government was telling industry what they did wrong rather than the other way around.

The other important thing about this research was that it also included local universities as well as the international companies. One of the facts that I find interesting, and it's the depth of my geoscience knowledge, the fact that Morocco and Nova Scotia were joined together millions of years ago became quite important in the understanding of what's offshore and the continent separated so that oil and gas activity in Morocco is of considerable interest to us because it tells us things about our offshore.

I haven't been able to wrangle a trip to Morocco yet, but given my geoscience knowledge I'm not sure it would be helpful.

The decision that was made at that time was to continue the geoscience work, that it was important to have new research on top of the Play Fairway Analysis. So we began a practice of doing further geoscience research on the areas that were going to come up in the next call for bids, so when we went back to the oil and gas companies we had new information to put on the table. Some of that was done in-house and some of that was done externally.

I'm really proud of the fact that the four parcels of land that BP bid on, which initially came up with no bids, over the course of the next few months there was geoscience work done by one of our employees, Adam MacDonald, he did some further geoscience work on those four parcels, and at the next call for bids that work was important in leading BP to bid over a billion dollars on those properties. I support the strategy of using external consultants, but it was a real thrill to have work done inside the government that led to that bid.

We have been continuing the process of doing further geoscience work in advance of the next call for bids, and we are going to continue that strategy. We have a commitment from the new government of $12 million in research over four years, so that's why I say that three successive governments, the Progressive Conservative Government, the NDP Government, and now the Liberal Government have continued the commitment to offshore research and we do think it's paying off - and it's not just in the call for bids. As I mentioned, Shell has brought in two partners, those partners spent a lot of time with Shell, and they also talked to us about what the Play Fairway Analysis shows and what the further geoscience research shows. So it has been important to bringing those companies on as investors in our offshore.

MS. MACDONALD: Last evening I was engaged in a conversation with a number of people on the Ivany report, and one of the participants in that group reminded me that at least two Canadian provinces used to be the benefactors of equalization and they no longer are, their fortunes have been reversed because of the strength of the oil and gas industry in development in their province. When I think about energy it's certainly something I don't have a great deal of knowledge about, but I'm really interested in it simply because I know that it holds this remarkable potential to influence the course of our province with respect to its economic prosperity.

Those investments would have contained some risk I suppose, would they not have? What does the department do with respect to risk assessment and what is the capacity of the department, in terms of staff? How often do you have to go outside the department for expertise and with the restraint that has been imposed on government departments what, if any, impact has that had on your department? We are the Public Accounts Committee and we are very interested in the workings of the departments in terms of the kinds of work they do, but really our responsibility is to look at the management and the capacity of government departments to oversee the responsibilities they are given. So those are the questions I have.

MR. COOLICAN: I think our first consideration in terms of whether we go inside or outside is based on the quality of work that we need to have done and whether our staff have the expertise that we are looking for. I think the other advantage of going outside from time to time is that you get a new perspective. Often when you're inside any organization, whether it's government or private sector, and you've been looking at a problem for a long time, it often helps to have an outside perspective come in and do that.

I think that has been the primary driver for us. It hasn't been a, you know - we just don't have the resources to do that work internally from a financial or people point of view. It's partly people and partly the skill set. It is a challenge in this business to be hiring people at public sector salaries when we are in competition against opportunities across Canada in the private sector. I won't go through all the individuals but we're incredibly lucky for the skill set that we have and we're always thinking about succession and where do we go next for the skills that we need because it's important for us to develop those skills internally within the government because if we try to hire from outside and bring them into the government that can sometimes be a challenge.

MS. MACDONALD: I have one more question on the offshore before I turn my attention more to the onshore issues. We have this geoscience analysis. We had the sharing of the information, we had the bids; we have the companies now that are actively in exploration mode. How long does that take? When could we reasonably expect some results from that? Is that kind of a stupid question?

MR. COOLICAN: No, it's not. That's a tough question to ask me, whether your question is stupid or not. I'm not sure how to answer that. But no, it's a perfectly valid question. One of the things about the energy business is that it's long term, whether it's electricity, renewable energy, oil and gas, onshore, offshore, it's a long-term business. The tidal success - and we are being successful as we move along but we don't yet have an economic industry here - that work started in the government about eight years and we're along the way and made a lot of progress but we still have a long ways to go.

The Churchill Falls project, Muskrat Falls, was in the making for a long time and it's still not there, it is underway, and I would say the same thing for the offshore. The offshore timelines are really anywhere from - let's say Shell made a discovery in their first well. There would be a process of further exploration in that area to delineate the size of the find, and a lot would depend on how quickly they decided to pursue that, how many rigs they brought in, how fast they wanted to proceed.

Then you have the process of planning once they've delineated it. Once they've had a preliminary find, they start to move into the planning for what might take place in a development phase; that process of moving to development could be anywhere from another five, 10, 15 years. To quote Dr. Wheeler, it doesn't happen overnight.

One of the things that we're doing as a department is that we are beginning to do some work on what success might look like for Shell, and what the province has to do to be ready to take advantage of that success. We are doing some work in that area, because success for Shell could have a huge impact on the province, not just from revenue. So, for example, if Shell were to be successful and develop a project, we would have a significant expansion to our exports, and we would have a substantial increase in revenue to the government that would be significant.

The other thing that would happen is that if Shell were successful, all of a sudden I think you would see renewed intensive interest in our offshore from other companies. If our theories are proven correct, and Shell or BP are the companies to do that, that would bring other interest. As you saw, it would see an expansion of the drilling effort, would have a significant impact on the economy. The economists are already saying that the small amount of research that has taken place to date has already had an impact on our economy.

MS. MACDONALD: Thank you. This brings me to the Wheeler report. My understanding is that the expert panel, or Dr. Wheeler, at different times have indicated that even if Nova Scotia were to go ahead with hydraulic fracking, it would be probably more than 10 years before we would see any actual wells or activity. Am I correct in saying that?

MR. COOLICAN: First of all, I would like to thank Dr. Wheeler for his efforts on this process and his panel. They did a lot of work, and while there was a cost, it wasn't a huge cost relative to the amount of work that was done. I think that they've provided us with a very good baseline of information that we can use. Dr. Wheeler talked about it probably being five, 10, 15 years, were the words that he used. I think he was combining the issue of public and community acceptance along with the uncertainties about oil and gas exploration, but if you . . .

MR. CHAIRMAN: Order. I do apologize. We've run out of time. You can continue in the next session. I will now move to the Liberal caucus and Mr. Rankin.

MR. IAIN RANKIN: Thank you. In terms of the new legislation that's going to be passed here soon, what changes in the industry, if anything? Have any companies indicated that they'd be leaving? Are there any jobs that will be lost?

MR. COOLICAN: We've had no indication to this point that any of the companies that are currently involved in Nova Scotia would be leaving. There has not been significant activity in our onshore. As I mentioned earlier, in the time that I've been the deputy minister there were no wells being fracked. Even before the controversy which probably started about two and a half to three years ago, in the two years prior to that there was no fracking. The only wells that were fracked in Nova Scotia were earlier in, I think in the 2000-2001 time frame, the wells that were fracked in Kennetcook. So there are no operations that have been shut down as a result of this legislation.

Looking forward, I hope that Julie Cohen, East Coast Energy, is successful in finding gas in significant quantities and that - well, economic quantities I guess, and that she's successful in beginning a development, she has been hiring local companies in the process she has followed to date and I suspect that would continue if she moved to development.

MR. RANKIN: Okay. And the money you mentioned, the $12 million that's being spent on research over the four years - is that dedicated solely to the offshore or does that include onshore research?

MR. COOLICAN: That's dedicated solely to the offshore.

MR. RANKIN: So that's consistent with the prior two governments. Has any government in the history of Nova Scotia indicated to any private company that fracking would be something that would be potentially looked upon onshore?

MR. COOLICAN: Well, until the moratorium put in place by the Dexter Government and the legislation that is currently before the Legislature, high-volume hydraulic fracturing in shale was something that companies could contemplate doing. There were the three wells in Kennetcook that I mentioned, in early 2000, that were fracked; those were the only ones that have been fracked.

MR. RANKIN: Fracking has been around since 1947, around that time?

MR. COOLICAN: There are all kinds of different theories about when fracking began, and I think what people are concerned about is the more recent practice, probably developed in the last 10 or 12 years, of high-volume fracking under pressure at deep underground. So we're talking about, in some cases, one to three kilometres underground and the practice of horizontal drilling that enables that technology to happen. I think that's the practice that people are concerned about.

MR. RANKIN: Just one more question on the fracking piece there. In terms of the difference between - in the United States when the company goes in, if they're adhering to all regulations, strict as they may be, as long as they're adhering to those regulations they're not liable for any adverse impact they have on the environment, whereas in Canada, and correct me if I'm wrong, if they adhere to all regulations, and say they are the strictest regulations in the country, if they do adhere to them, they are liable - is that correct?

MR. COOLICAN: Simple adherence to regulations doesn't absolve companies of liability, and I think I'd have to check on the onshore issues, but certainly as you would have seen in the offshore legislation that has just been passed that if a company is responsible for the damages that they've caused they have unlimited liability. The legislation that you passed indicated or said that companies would be liable for $1 billion if they were at fault or not, and they had to have put up $100 million as a bond.

Onshore companies have to put up some security, it's a much smaller amount because the potential damage is smaller than you have when you're dealing with the offshore, but simply following the regulations, to my understanding, does not resolve you from liability.

MR. RANKIN: Okay, I read something else, I read that in Canada, as long as they are following regulations, they won't be held liable, so that was a concern that I had.

MR. COOLICAN: I will check on that but my understanding is that just following the regulations does not absolve them.

MR. RANKIN: Okay, before I go to the next speaker, I just had a quick question on the COMFIT program. Community support has been something that has been debated - what the definition of community support is - so in terms of developing wind farms specifically, there have been quite a few different community groups that have vocalized that they didn't support certain projects in specific areas and the project still goes through. So what is the definition of community support from the Department of Energy? I know there has been recent change in that program, that's why I ask that.

MR. COOLICAN: We changed the definition of community acceptance in April and we don't have the exact terms of that but the question in general applies to your definition of the size of a community. So for example in the COMFIT program, support from the elected representatives in the municipality in which the project was taking place was considered to be very important.

Also there had to be a level of local investment, and again the issue that has come up is the issue of in what proximity did those investors live. In a number of cases where there has been opposition to local projects, it has been the people in the immediate area of the project who have tended to be more negative than the broader community. It depends on how big you draw the circle around the project. That's not to say there have been a lot of projects in Nova Scotia where there has been good community support from everyone, including people who live in close proximity to the project, as well as the broader community, for wind projects.

Those of us in government and people in media will often focus on the negative and the people who are opposed to things rather than the projects that have good strong community support right around the project as well as beyond.

The other issue that comes up is in effect a zoning issue of how far away the turbines should be from residences. The government has decided that those decisions are best made by the municipality and so it is important that you have local municipalities who are saying this is how far the turbines need to be from residences and that varies across the province.

The other factor that's important is that there is a noise impact measurement and regardless of how far the turbine is from somebody's residence, there is a limit to the noise level, regardless of how far you are. If the project is two kilometres away and it's not able to meet the noise criteria, they have to change the design of their project, regardless of the zoning of the municipality.

The other thing is that the projects that are two megawatts or higher go through an environmental assessment in which all of these factors are taken into consideration.

MR. CHAIRMAN: Thank you Mr. Rankin, we'll now move to Mr. Stroink.

MR. JOACHIM STROINK: I'm going to touch on the tidal stuff as I find that very interesting. I guess being over in Scotland with the Premier this year, really my understanding is that the Bay of Fundy has become the Holy Grail of tidal energy. I guess my question, putting that in perspective, if Nova Scotia is investing money into that, it is going to have huge revenue benefits for Nova Scotia - we understand that there's energy there, not like natural gas, we don't understand if it's actually there - so investing monies into this project seems to make sense. So far, how much have we invested into the tidal project?

MR. COOLICAN: The province has invested $11 million in tidal, mostly in contributions towards the creation of the transmission capability. We have also had support from the federal government. So there has been $7 million spent on the site at FORCE and $4 million on upgrading the grid to allow for the projects that we're expecting over the next couple of years. The federal government has contributed about $20 million.

MR. STROINK: Great, thank you. I guess from there we must have some sense of projected revenues that we will expect from the Bay of Fundy, if the Holy Grail actually happens.

MR. COOLICAN: If the Holy Grail actually happens, so the first thing to remember about the production of electricity is that we do not charge a royalty. So the benefits for us will come from renewable energy that is a lot more predictable than wind. You can predict when the tides are going to be running and when they are going to be off, so that creates an incredible advantage to the electricity system to know that.

The real opportunity for Nova Scotia will be in the industrial economic benefits of investing in a world-wide industry that the Carbon Trust in the U.K. has estimated as a $10 trillion global industry. We think Nova Scotia is well positioned to become a participant in that industry.

If you look at the total potential investment, it wouldn't take a huge percentage of that to really grow our economy. So what do we have that makes us think that we can do that? We have an ocean technology group of companies in the province who have developed their expertise around defence industries, mostly in the naval area, environmental monitoring businesses, and offshore oil and gas businesses. All the skill sets they have developed for those three sectors are skill sets that can provide services to the tidal sector, both in the design and installation of tidal turbines but also in the ongoing maintenance and servicing of these turbines.

MR. STROINK: So pretty much what I'm hearing from you is that investing into this makes a lot more sense than fracking as this is a known energy source that we are getting out of this province and the return on that is quite large, when we understand what's there, versus we don't understand what's in the ground.

From there I'm trying to see the whole philosophy of seeking to understand, we're going onto the Fair Play Analysis on land to figure out actually what we have there. What is the cost of that project for Nova Scotia?

MR. COOLICAN: We haven't determined the costs yet to the project. We're starting to outline exactly what information we have. We've been doing some work on onshore geoscience for the last couple of years. We need to review that to make sure we have a good understanding of what we have. After we have done that we will be planning what the longer term effort on the onshore geoscience atlas will be and what it will cost.

MR. STROINK: Great, thank you very much.

MR. CHAIRMAN: Thank you, Mr. Stroink. We'll now move to Ms. Lohnes-Croft.

MS. SUZANNE LOHNES-CROFT: Thank you for coming today and when we talk energy, I guess the public is more concerned about electricity because that is something they receive every two months, their bill, and how it affects their lifestyle. I recently was in attendance when the Energy Minister was in Mahone Bay doing his electricity review and the topic did get onto other sources of energy. Although people learned a lot about the electricity review and sources of energy for electricity, he was very enthusiastic about the offshore, which was surprising to people because there has been so much focus on the onshore fracking. I want to know how many people are employed right now with the offshore - an estimate.

MR. COOLICAN: That's the energy sector, not the offshore. I'd have to do some work to get that. I think it would consist of the people who are working on the operating platforms that are offshore at the moment. The exploration work that Shell and BP are doing is pretty cyclical at the moment so that they did their seismic programs in the summertime and Shell had a major effort two summers ago and a small effort this summer.

BP had a major effort this summer and we expect them to do some more of the seismic work next summer. Their effort will be cyclical. When Shell brings in a drilling rig, that will add significantly to the amount of employment, both on the rigs but also on shore. A lot of the work that is done supplying the rig when it's offshore is done by local companies.

MS. LOHNES-CROFT: Is there a timeline for that rig to be in place?

MR. COOLICAN: Next Fall.

MS. LOHNES-CROFT: Is there interest, besides the public interest, in having Nova Scotians employed?

MR. COOLICAN: Yes, there is. The Canada-Nova Scotia Offshore Petroleum Board and the Government of Nova Scotia make it quite clear to the companies that we want to maximize local employment in their operations.

For example, given that there are safety concerns and expertise concerns, it's important not to compromise safety or environmental protection. You need to have skilled workers. As it turns out, a number of the skilled workers that may come with this rig are actually Nova Scotians who developed their skills over the years with the offshore here and have subsequently gone on to work in other places for the oil and gas companies. Some still maintain Nova Scotia as a residence, others have moved on.

ExxonMobil, for example, refers to Nova Scotians as one of the highly skilled groups in their international workforce.

MS. LOHNES-CROFT: That's good to hear. Is there any plan or is it maybe taking place now that we are training people in our NSCC campuses for building skills or is a lot of this hands-on?

MR. COOLICAN: I think there are programs at the Nova Scotia Community College that are important for people to have. They then require getting experience in the offshore. There's a fair amount of on-the-job training that happens. I mentioned earlier on the work we're doing on planning for success and one of the aspects of that they will be looking at is the skillsets that are required.

I should just mention that the Department of Energy has an energy training program. There are two aspects to it, one is that we support private sector. . .

MR. CHAIRMAN: Order. I do apologize. Perhaps you can get that answer afterwards, but we do have to stick to the clock. We're running a little behind so for 12 minutes we will move to the PC caucus and Mr. Houston.

MR. HOUSTON: Thank you for your answers. I do find it very interesting. I can see the excitement over the hydro and the excitement over the offshore, but I've got to be honest, in a department of your size, when you have big things like that, it seems to me that the onshore becomes a bit of noise. We're dealing with hydro; we're dealing with offshore. You know, the onshore is maybe smaller, maybe not. Don't know. Need a lot of work to do. It must be tough to get focus there, so when I do read things like, the ban won't impact investments, or when I hear statements like, no operations have stopped, I do find those statements a little concerning, just because it's really hard to say that.

It's disingenuous for anyone to make a statement that banning a way of doing business won't impact future opportunities. It could be that we don't know. But if we don't know, it's that we don't know - right? So I am concerned about that and I have been - in talking to industry - it's my understanding that the industry was developing an expectation as to what to expect onshore with the initial review that started back as early as 2011. I just want to go back to that review very quickly. Did that review, under the Dexter Government, culminate in a report with a recommendation to the department?

MR. COOLICAN: No, no, it didn't. It did culminate in work that certainly was provided to the Wheeler commission on the jurisdictional analysis report that was completed. But there were no final recommendations submitted to the government.

MR. HOUSTON: I think industry probably - it's hard to say - had a sense that, after that report was done, there would be some regulations set in place under which they could operate in the province onshore, and specifically hydraulic fracturing, should they choose to do that, and I think that's what their sense was, was going to happen. Now we have a different course of action, which is a ban. I would like to ask you - I've been hearing - I think I hear conflicting reports in the media, and I often hear conflicting answers in Question Period, in fairness, from the Premier and the Minister of Energy as to what's happening with this ban.

I'll go back to my question of before of, do you think hydraulic fracturing can be done safely in the province? I'll phrase it another way: As you sit here today, do you expect that at any time in the future, we will see hydraulic fracturing in Nova Scotia?

MR. COOLICAN: That's a difficult question to answer because the technology for oil and gas activity is changing. As an example, there are a lot of jurisdictions where access to water is incredibly important, and quite frankly, there are scarce water resources in many jurisdictions that have significant fracking operations. That would not be the case in Nova Scotia, although people are concerned about water quality, we've got enough of the stuff. So, in order to meet those issues - and there's also a question of cost, when you have to truck significant volumes of water, that's a significant cost - so the industry, for environmental reasons, for cost reasons, is looking for alternatives to uses of large volumes of water under pressure to handle…

MR. HOUSTON: So if I may, then, it sounds like what you're saying is, the technology will change because the industry will innovate. They will find different and better ways and more effective ways to do things, so we expect industry to innovate. I guess my question is, do we expect the government to innovate as well? So today we have a ban. Is that a permanent ban? Is it a temporary ban? These are the types of questions that I certainly don't know and I'm wondering if you have a sense on it.

MR. COOLICAN: It's a ban until the Legislature decides to lift it. So it's in your hands as to what happens with the ban. The government made a decision not to put a time

limit on it for review because of the uncertainty about what might happen. You asked me a question about, do I think in the long term the ban will be lifted, and what I was trying to do was to indicate that there are a lot of things that can change which might make it easier to accept or safer to accept hydraulic fracking in the province or may make it more difficult. I frankly can't predict that future.

MR. HOUSTON: Fair enough. We hear a lot of talk about the social licence and the reaction of communities to the thought of the term "hydraulic fracturing" and I'm a little worried that the department has fuelled that fire.

When people see a headline, "Nova Scotia Bans Hydraulic Fracturing", they don't need to read any further. They develop an expectation that they've done that because it's a bad, bad thing. I don't know that the province has done that because it's a bad, bad thing and I particularly don't know that when I hear the minister saying, well we'll probably lift the ban eventually anyway, we'll deal with it later - those types of statements.

I'm just wondering if inside the department there is a plan, and the plan says, we ban it today, but we're going to follow this road map that gets us somewhere? Or is it the department's perspective that this is banned - turn the page, go work on other files.

MR. COOLICAN: I don't accept the premise of your question. A lot of the information that is around in the public has been the result of a lot of media coverage. It has been the result of a lot of people participating in public debates. Frankly, it has been the result of a lot of people not participating in public debates, and I would say the industry itself, for example, was not a strong participant in the public debate that was going on in the province.

So do we have a plan? Our plan, as I've mentioned, is to do the work on the onshore geoscience to get a better handle on what geoscience is there. We will also be reviewing our regulations and putting new regulations in place - not just for the hydraulic fracturing, but for other forms of onshore oil and gas development, which we expect to happen.

MR. HOUSTON: So in developing the regulations for onshore, including all kinds of different ways that can be done, one of which is hydraulic fracturing - you are in the process of developing regulations that would address hydraulic fracturing in the province?

MR. COOLICAN: Well, we are certainly in the process of developing the regulations that are required by the legislation and we will then be proceeding with regulations to provide for activity that is allowed in the province.

MR. HOUSTON: So on the offshore, when there was a $15 million investment to do that mapping - and that was a seed that was planted that's growing, I guess, now and paying for itself. I think I took your comments earlier on my first round to say that the similar process is now starting onshore, where it was a $15 million investment in the

offshore, there will be an investment in the onshore, but we don't know how much that investment is yet?

MR. COOLICAN: That's right. I could probably predict that it will not be as costly. Things cost more in the offshore - whether you're doing the geoscience or drilling or whatever it is.

MR. HOUSTON: So the province will spend the money to do the research - that's what will happen with that investment; that's what happened offshore?

MR. COOLICAN: That's right.

MR. HOUSTON: Then the province will spend it onshore. The alternative to that is what? Industry spends the money?

MR. COOLICAN: Well, I would argue that on the offshore, industry was not spending the money. They'd stopped doing seismic work and they are at a disadvantage because they can only look at the information that they have acquired at their expense.

MR. HOUSTON: Sorry, that's on the onshore?

MR. COOLICAN: That's on the offshore and the onshore.

MR. HOUSTON: So on the onshore, did you say you would argue that industry is not spending the money onshore? (Interruption) I didn't know if he said onshore or offshore.

MR. COOLICAN: I'm talking about the offshore first to take you through that. In the offshore, the industry had stopped spending money on seismic work and drilling exploratory wells. They are at a disadvantage in doing the geoscience work because the information that is available to them is limited to the information they have acquired or other information that over time becomes publicly available.

The government has access to all that information and so was able to put that together in a much broader scope than was available to the offshore companies. That same principle can be applied in the onshore - we have access to a broader amount of information than the individual companies have, so we'll be able to look at a broader picture.

MR. HOUSTON: So on the offshore, industry had stopped investing. On the onshore, had industry stopped investing?

MR. COOLICAN: So on the onshore, there was very limited investment. I think I had mentioned, we had the work that East Rock - I keep getting East Rock and East Coast confused - Julie Cohen's firm. They had been doing exploratory work. There was a well

drilled that did not go to a full depth and we had the two wells drilled by Forent. Forent indicated before any decision was made that they were pulling in their horns and going to do their work in the West.

Triangle, which drilled the Kennetcook wells, had announced a decision that they were pulling out of Nova Scotia a long time ago. There are differing factors that happen, what's the price of natural gas, what . . .

MR. CHAIRMAN: Order. We have run out of time again. We'll now move to the NDP caucus and Ms. MacDonald.

MS. MACDONALD: I don't know if you've said this already or not but I want to ask, when do you anticipate that the regulations for Bill No. 6 will be completed?

MR. COOLICAN: We think it should be early in the new year that it's done. It's going to involve some extensive consultation with other jurisdictions which is starting in the next week or two. It's actually assisted by the fact that one of the regulatory bodies, and I've forgotten the name of it now (Interruption) The IOGCC, the chair of the international committee of that organization this year is Kim Doane, who works as director of petroleum resources so it's a sign of respect in the industry, which is positive. She will be leading consultation with jurisdictions. There will then be some consultation with the companies through the regulation-making process.

MS. MACDONALD: I want to ask about the Maritime Link. I don't have a lot of time so I'm wondering if you can tell us how many jobs have been created so far on the Maritime Link and whether or not the project is on time.

MR. COOLICAN: I'm going to start with time while we look up the numbers on the jobs. The latest information I have is that the project is on time and under budget.

MS. MACDONALD: It's under budget by how much?

MR. COOLICAN: I don't know and I should probably say on budget, I don't think it's a significant amount.

MS. MACDONALD: Does the department still think the Maritime Link is the lowest-cost option for energy generation?

MR. COOLICAN: The department still believes that the Maritime Link is the lowest-cost option, considering the environmental requirements, the renewable targets, the addition to transmission capability that the project gives to the province. I was at a breakfast this morning and in talking to some of the tidal developers, the advantage of the Maritime Link in improving our connections to the North American grid will play a part eventually in our ability to export tidal energy to other places.

In Newfoundland and Labrador and Nova Scotia, because some of the work on the Maritime Link is happening in Newfoundland and Labrador, we have 200 employed today. We expect 300 jobs a year in Nova Scotia and Newfoundland and Labrador on the Maritime Link alone between 2014 and 2017.

MS. MACDONALD: Thank you. In your opening comments you said that we are on target to meet our renewable objectives or goals. I was trying to remember whether we had - there was some federal requirement that was modified for the province, is that accurate?

MR. COOLICAN: The federal government came up with a policy and regulations dealing with coal plants and it was a policy that would say you have to close these coal plants by this date based on the length of when they were first commissioned. We made an argument - the government made an argument primarily led by the Department of Environment that Nova Scotia was on track to meet the same impact of lowering GHG emissions as though those plants were closed. But we felt it would save the province about $1 billion if we were allowed to keep the plants open and just reduce the amount of coal that was burned.

Just because you close the plant doesn't - if you don't operate three plants to their full capacity, it can be similar to closing a plant so the idea is that gives us more flexibility in how we run our system but we still meet the same greenhouse gas targets.

MS. MACDONALD: That's proceeding?

MR. COOLICAN: That's proceeding and when I mentioned that we are meeting our renewable energy targets, we're also meeting the environmental requirements of - it's called an equivalency agreement with the federal government.

MS. MACDONALD: There has been news coverage and conversation about a pipeline to New Brunswick from western Canada. One of the things I certainly wonder about is what impact would that have on Nova Scotia and on our energy requirements? Any impact or is this solely something that would be beneficial for our neighbours next door?

MR. COOLICAN: First of all I think any improvement to energy infrastructure in the region will be beneficial to all parts of the region. Just as New Brunswick and P.E.I. were supportive of the Maritime Link at the time because of its improvement to energy infrastructure, we think the same is true for the pipeline proposal.

We also think there is an opportunity for a different design of the pipeline or a pipeline to happen after that one is under construction that would bring oil to the NuStar terminal in Point Tupper which has the capacity to export oil. It's an existing terminal; it has a very good safety record of bringing oil in by tanker and taking it out without any significant incidents.

MS. MACDONALD: Is that the old Gulf refinery?

MR. COOLICAN: It's at that location, yes.

MS. MACDONALD: The last question that I would ask is back on Bill No. 6. Have the rules really changed with respect to onshore fracking with Bill No. 6 from where we were prior to Bill No. 6, or are we essentially in the same place with more work to be done and a plan that will get us along a path to having a greater awareness of whether or not there is a business case to actually engage in this form of resource extraction?

MR. COOLICAN: I'm sorry, are you asking me to assume that the bill passes?

MS. MACDONALD: Yes, I think that's a pretty safe bet.

MR. COOLICAN: So I haven't done that bad a job today that it's going to change the view of the Legislature? I think what I would say is that the bill provides greater certainty to exactly what the situation is in Nova Scotia. The moratorium that was in place before was a policy moratorium that was always understood to be something that was there while the government considered the question in more detail through the Wheeler commission. So it gives more certainty; it gives more legal support to it. I think having a regulatory process which defines exactly what is not allowed and also under what conditions research can take place provides greater certainty to the industry and greater certainty to the people in the province who have been interested in what's happening in the onshore.

MS. MACDONALD: You indicated that the department had sought a legal opinion as to whether there would be any potential for litigation, I guess, as a result of Bill No. 6.

MR. COOLICAN: I think I overstated that. I would say we had legal advice.

MS. MACDONALD: So the question I would have is, were there any business entities that would be impacted by Bill No. 6, that the features of Bill No. 6 would have implications for any entities already operating in the province?

MR. COOLICAN: It has no impact. There were no entities that were fracking when the bill was introduced, when the decision was made, and you can't stop what isn't started. We're in quite a different position than, say, New Brunswick, where they had existing production where fracking was being used and they certainly had companies that were active in preparing for exploration through fracking.

MS. MACDONALD: Beyond fracking, are there any companies that have any implications from the bill beyond the actual having a well?

MR. COOLICAN: There have been media reports about one company that may have been brought up by the Opposition in the Legislature - a company that was a safety company, I believe. In actual fact, I think that company already relied on a lot of its business in Western Canada and in the offshore. If I were planning a business, I'm not sure if I would have been planning a business based on onshore activity in Nova Scotia, based on the history over the last 15 or 20 years.

MR. CHAIRMAN: Order. We do have to move to the Liberal caucus and Ms. Lohnes-Croft.

MS. LOHNES-CROFT: May we continue on the skills training program that the Energy Department . . .

MR. COOLICAN: Yes, that would be great. We have a skills training program, which provides a grant to industry if they are in the energy business and hire a student to work with their company. We also have the partnership with Pengrowth for the Pengrowth scholarship, which provides scholarships to Nova Scotia students who are studying in the field of energy. Pengrowth is primarily in the oil and gas business. That scholarship applies, as does the training program, to all forms of energy, whether renewable or hydrocarbon.

MS. LOHNES-CROFT: So we can feel confident that when the offshore gas gets going next Fall, we will have Nova Scotians prepared to work in that industry?

MR. COOLICAN: I would say that we have work to do. That's part of the work that we're doing to look at what happens if there is success in the offshore. The other potential industry that has not come up yet is the LNG industry, and I would say that we have some work to do there as well, in terms of if - I haven't got a figure of the number of workers, but LNG investments could, if all three of the projects that are currently on the books go forward - and that's hypothetical - the investment would be approximately $15 billion in LNG.

In other jurisdictions the issue of skilled trades has been important to the development of the industry and keeping costs down. We think that area of the province has a lot of skilled people who are now working in Alberta, who I think will come home if the LNG industry starts to happen.

It's also interesting that there has been a lot of attention in the country paid to LNG projects in British Columbia. If you compare the size of the British Columbia economy to the size of the Nova Scotia economy, I would say the potential impact of LNG on our economy could be as great as the projects they're talking about in British Columbia.

We have taken a somewhat quieter approach toward the development, but I can tell you that there was a meeting that has been referred to in the media that was put on by the

Bear Head LNG people. It brought in 25 major investment organizations to a meeting here in Halifax. The Premier spoke to them, Minister Samson spoke to them, and Minister Younger spoke to them, and they came away very excited about the opportunity, very excited about the openness of the Nova Scotia Government toward doing business here in the province. So it was very positive.

Are there some challenges to the development of LNG? Yes, there are, and there are challenges in British Columbia as well, but we are working through those challenges with the investors and will continue to do so. Those investments could have a significant impact on the economy of Nova Scotia.

MS. LOHNES-CROFT: Well, let's hope we bring them home. I'll turn it over to my colleague.

MR. CHAIRMAN: Thank you, Ms. Lohnes-Croft. We'll now move to Mr. Maguire.

MR. BRENDAN MAGUIRE: She said that really slowly - "colleague." First of all, I want to thank all three of you for coming today. We appreciate you coming here and shining some light on this issue. When we sit in the Legislature we hear a lot of buzzwords and catchphrases, so it's good to see the people who are actually directly involved in this industry here to answer the questions.

One of the things that we continue to hear is the expression "closed for business." You talked earlier about how BP, Shell, and Suncor, among others, have invested billions of dollars offshore and millions of dollars onshore. So I would think that, from a business looking at Nova Scotia, and from a government, we're not closed for business. It's probably the exact opposite. Shell doesn't go and invest this type of money if a province is closed for business. Would you agree with that?

MR. COOLICAN: First of all, you're not just a colleague of the member next to you. You're also my MLA.

MR. MAGUIRE: I didn't want that on the - I'm just joking.

MR. COOLICAN: And there are a couple of things I want.

MR. MAGUIRE: My road, my school . . .

MR. COOLICAN: Anyway, it's a great area. I would say that there has been every indication that Shell and BP are continuing with their investments in the province - and ConocoPhillips and Suncor have also decided to join Shell in their investment. I think that's a positive sign of their view of their ability to do business in the Province of Nova Scotia. I think it's very positive. I just described the reaction of a group of investors from

the United States and Australia who were very excited about how open the province was to do business with the LNG proponents.

I've just come from the International Conference on Ocean Energy where the delegates were, quite frankly, blown away by Minister Younger's opening comments. They were excited about his excitement about the tidal industry and his commitment to working with them in collaboration, both internationally with other governments but also with these businesses, to make something happen in the tidal area.

I think if you were to ask the delegates at that meeting they would say yes, we're open for business.

MR. MAGUIRE: I thank you for that answer. The other thing that we continue to hear is that you just put the drill in the ground and away you go. You touched on it earlier and we haven't really got back to it much but I want to talk about the geo-mapping - how important this actually is to the industry and how important this is going forward.

I know you can't predict results, obviously, until we get the geo-mapping done but traditionally, what is it used for and what do you find? Is it there's something there, there's something not there? I want to just touch on why we're doing the geo-mapping before we stick the drill in the ground?

MR. COOLICAN: The first thing to tell you is that what we know for sure, even before we start, is that there will be no opportunity in the Yarmouth area, just to be clear, in spite of the letter we got from the Mayor of Yarmouth opposing fracking, there is no resource under Yarmouth or in the area.

MR. MAGUIRE: None in Spryfield?

MR. COOLICAN: Not in my backyard, no. Actually I don't know the answer to that.

The geoscience work that we do and you talked about traditionally how this is done - this is a concept that is fairly new in the government approach to resource delineation. A couple of other countries have done something similar to what was done in our Play Fairway Analysis, we took it to a higher level and the industry is very impressed. We are now going to bring that same practice to the onshore and I'm not aware of other places that have done this so this is fairly innovative.

That kind of work never says that if you drill a well here you will definitely, absolutely, find an economically-viable amount of gas or oil. You just can't have that level of certainty until you've drilled and not just one well but it can be a number of wells. What this work does is to say to people, here are the best opportunities for drilling, here's what

we think will be in this area. So when we add it up on the offshore, we found the prospect of eight billion barrels of oil and 120 trillion cubic feet of natural gas.

Can we guarantee that? No. Can we guarantee that if Shell drills in this spot? No, we can't. Shell will now have new seismic work that will add to their knowledge about what's in the area and then they'll be drilling to add further to that knowledge. Often they will say it takes more than one or two wells, if you have some good science.

Now obviously in other places people will make a decision after one well that it's not economical, there's nothing there. But when they do start to find something, it usually takes more than one well to delineate the size of the discovery.

MR. MAGUIRE: I'll ask one quick question and then I'll pass it on. I know my colleague . . .

MR. CHAIRMAN: There's one minute remaining.

MR. MAGUIRE: Oh, one minute. You know what? I'll pass it on and I'll just get you later. I know where you live.

MR. CHAIRMAN: Mr. Jessome.

MR. BEN JESSOME: Thank you, very quickly. I guess I've heard people say that we can directly apply regulations with regard to onshore oil and gas development to Nova Scotia. What are the risks or pros associated with that?

MR. COOLICAN: I think it's important when we look at regulation that we design a regulatory system that is based on the best practices that have been developed across North America, but we also have to look at how those regulations would be applied here in Nova Scotia. We have to take into consideration the different geography and the different geology that's here as we do those regulations.

MR. JESSOME: Very quickly, I'm kind of unclear on it - you said that government has the greatest access to information or research compared to an individual company which would be isolated to what their company has researched. Therefore, it's accurate to say that the government is the best body to do the research or do the information-gathering with regard to the oil and gas industry, onshore or offshore?

MR. COOLICAN: I would say at this stage, given the kind of work we're doing, the government has access to more information than other organizations would do. I wouldn't want to underplay the expertise that the oil and gas industry brings when they do their research once they've narrowed it down to an area they want to focus on.

MR. CHAIRMAN: Order. I do apologize, but we have run out of time. Mr. Coolican, we just have a couple of minutes left, would you like to give a very brief closing comment?

MR. COOLICAN: I think I'd like to thank the members for their time and the courtesy of their questions. I spent the weekend reading over the Legislative comments on energy and I was blown away by how much information there was in there. I appreciate the opportunity to come here and I also appreciated the level of knowledge evidenced through the debates and through the discussions here that you have. I know you have busy schedules and you're trying to deal with a lot of different issues.

Energy is a very complicated issue with time frames that are often different from those of governments and the political process. I think that from my comments on a number of issues you've seen a fair amount of stability between the last three governments in terms of the direction particularly on the offshore, which is very much appreciated by the department. I think it speaks to our ability as a province to seize the opportunity presented by the offshore oil and gas industry and other areas such as tidal energy and possibly the liquefied natural gas plants.

MR. CHAIRMAN: Thank you, Mr. Coolican, and thank you to Mr. Spencer and Ms. Rondeaux for joining us today.

We just have one piece of business, there is some follow-up information from Communications Nova Scotia from our October 8th meeting that you have. If you have any questions you can ask myself or the clerk about that.

We have no Public Accounts meeting next week, but we will return on November 19th when we will have the Department of Transportation and Infrastructure Renewal to discuss tenders for roads and bridges.

With that, we are adjourned.

[The committee adjourned at 10:58 a.m.]