

Andrew Younger, NS Energy Minister
Maritimes Energy Association Breakfast Session
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CHECK AGAINST DELIVERY

I want to thank you for hosting this event today.

There is a lot of work going on. We've been doing a lot of work in balancing renewables, hydro carbons and all the different elements of the energy industry. I want to give you an overview of that today.

There is tremendous amount of energy-related knowledge in this room. I've talked to people this morning involved in tidal energy... in electricity... and oil and gas...and they have all worked together – there are synergies with all of those.

I have been involved in the energy field for a number of years. As councillor, I chaired the energy and underground services committee and we looked at ways to maximize the opportunities in energy field.

I'm very excited about the opportunities in this sector and in engaging all Nova Scotians of all backgrounds in real, constructive dialogue and discussions about the issues.

I know many of you have witnessed some of the things that have changed in Nova Scotia over the years.

We're transforming the energy sector and have moved from 95 per cent coal on the electricity side to cleaner, more competitive energy sources closer to home.

We're trying to set winning conditions for all different elements of the industry.

A few weeks ago, I announced a tidal energy research partnership with the UK and this will be one of our exciting opportunity in the future. On Friday, we announced the two remaining berth holders for FORCE in Parrsboro (OpenHydro and Black Rock Tidal Power).

We also realized we needed to create a condition where we actually were there - that the province was involved – so we announced the contribution of \$4.2 M so that clean, renewable and predictable tidal energy will actually be able to connect to homes and businesses in this province.

That was really important because there is no point in doing these advancements and this work if we're not connected to the grid.

This fall, we will welcome world leaders in offshore renewable energy when we host the International Conference on Ocean Energy in November, the first time it has ever been held outside of Europe. It is the world leading conference on offshore renewable energy.

On land, we're encouraging the development of community wind, biomass-based projects and other community energy options. I recently updated rules around this.

We're also continuing our approach to research on oil and gas potential. The reality is as we move away from fossil fuels in terms of electricity generation, we are still at least decades off from a world where you don't have fossil fuels.

I spoke at Dal the other day and we talked about the fact that only need to go to the local playground to realize it's all made of oil... or the asphalt bitumen that paves the roads... or the metro transit bus (even with a hybrid that has gas backup) still uses fossil fuels.

When I was in Houston and Calgary, and I talked to BP and Shell and others, they agreed that it's about maximizing and making sure those last longer by investing in others... so that's why a balance is very important.

There's a lot going on and it's about more than just royalties.

A lot of people focus on the royalties.

That's important... but it's about the opportunity to develop an oceans technology sector here that rivals the world.

And the same ships that are used in the oil and gas industry are the same ships that are used in tidal, and are the same ships that are used in offshore wind. Same technology and expertise. You build an environment of expertise.

Oil and gas = on a pure money basis is the single biggest opportunity for our province. We're proceeding with cautious optimism but there is a lot of potential... in terms of fertilizer, LNG, research and development.

I've been putting considerable effort into talking to companies – what are the benefits and opportunities for this province.

Here's a video we put together for the offshore oil and gas shows.

(Video)

Sandy and his team had this recently at OTC Asia in Kuala Lumpur and version of this will be at OTC Houston as well.

A lot of people around the world say they didn't know we have this expertise. It means something.

The Play Fairway Analysis was a \$15M investment –it was a smart investment in a geoscience atlas of NS's offshore.

When we show that to people they say, wow, they didn't know we had that potential.

We're committed to continuing that research because that research benefits a lot of different sectors.

It benefits the oil and gas industry and a lot people working in the offshore. It's our intent to expand this data and enhance its usability.

We've estimated there are about 120 trillion cubic feet of natural gas and eight billion barrels of oil in the offshore but our understanding of the geology is part of what makes it possible to find the resources because just because the oil or gas is there doesn't mean it is recoverable – or safely recoverable.

It's a matter of finding resources that are economically, environmentally and socially responsible to extract.

The science works. It makes sense to do this based on science. It has paid off. Shell has committed \$1 billion in exploration over the next six years – they completed their seismic work last year and are now preparing to drill around seven wells next year in the offshore.

BP invested \$1 billion in exploration and a two year seismic program that starts next month.

These represent the largest bids in Atlantic Canadian history. That's significant because that's the kind of interest being shown. When you meet with many of these companies they are now talking about the Laurentian Sub basin and other opportunities that are there.

Both of these companies have talked about the importance of the Play Fairway Analysis in their decision making.

As we look forward to the new call for bids, which will be coming up shortly, we're trying to match our research with the work that is already being done. (refer to PP) You can see what's coming out in 2014 and 20145 and where BP and Shell are.

We're trying to match our work with where the industry is going to be so they can look at the data... they can make their own decisions based on what's available... and what's there.

In the throne speech we committed to continuing the investment in the research and we will do that. We will continue to ensure the science is there and the information is available to all those who are interested.

When we look around the world, there are more than just the usual players now involved in this sort of thing. Quite frankly, things change on a daily basis in this industry. If you had thought a month ago that Russia was going to annex Crimea, you would have been crazy but now they have and that has actually changed the energy marketplace in Nova Scotia all of a sudden because projects like the LNG terminal suddenly have different economics around them because people are looking at the energy security situation.

We have invested another million dollars in brand new geoscience work for the Laurentian Subbasin and we've contracted Becep Freinlab for this work. They did Play Fairway Analysis.

We'll provide this data for free. Anyone who wants to see it can see it. Kim Doane was in video looking at it – it really is that big. We can give it to you on CD – easier to carry. You can come and look at it in the office. It's amazing.

We're already seeing excitement on this sort of stuff. People are talking about partnerships they could put together. When we were in Houston we heard people saying 'this or that' partnership could work. Much like the tidal industry where we saw many companies coming together, we're seeing the same in oil and gas.

In the near future, we want to put together a multi-year program of government funded geoscience and marketing to put in place—some of this has already begun. You see the videos. You see what we're doing.

The offshore is a long play. If they find oil next year it will not be in production in 2016. I can't tell you how many people ask me that.

You've got to build the rigs... you've got to figure out environmental side... you've got to figure out the safety measures.

This is a long term game.

I will tell you now with some certainty that the odds of there being a production well by the time the term of this government is up is probably not very high but we need to understand that we're investing in the future.

We need to do it smartly. People are very excited about this. This is a high priority for our government. I intend to build on this with the support of the Department of Energy. We need to continue to build on this interest that we've seen.

At the moment, Deep Panuke and Sable are combining to produce about 500 cubic feet of natural gas per day. That's good for the local market.

There are also some significant discovery licenses out there – we just need to make the economics work... if someone figures out a way to do this, then they will tap into that gas. There are opportunities outside of the low price here (compared to Europe).

If you look at the price of gas, at the moment, the economics don't work for drilling in the offshore for the moment unless you find an astronomical amount. But it does work if you are doing LNG or fertilizer plants or if you're looking at other markets or at addressing the security situation in Russia.

In terms of Shell, they are reviewing 10,000 sq km of data they collected first 3D wide azimuth subsurface mapping every conducted in offshore Canada.

I saw it in a room at the company – it's like the Matrix – 3D – you could see the geology. I didn't understand it all. The geologist there were jumping up and down and all excited. The quality of the data is very good and it comes down to them picking the right targets.

Shell plans to deliver seven wells on their licenses and they have spoken publicly about their plan to be in there in 2015.

BP will conduct 3d seismic survey – in water 100 to 3000 m deep over 14,000 sq km.

Western Geco will be here and most of NS's will have a chance to see the ships when they come in the harbour we think at the end of this month (April).

The opportunities are not limited to offshore.

The first on shore well in NS was drilled in 1869 – there have been 139 wells drilled in NS.

When you talk to people, people don't realize this.

Similar to offshore process, we're building an onshore atlas to map out where oil and gas potential is. This is new geoscience information and we'll provide this info to the public as well.

Just last fall, East Coast Energy drilled two exploratory coal bed methane wells in Stellarton.

What was interesting about that was that it happened in the same week that all the protests were happening in New Brunswick regarding fracking. Of course, this wasn't involving fracking.

I was in Stellarton and the response from the community was overwhelmingly positive about this project. People were excited and interested. A lot had to do with how that company

engaged the community – and making sure everybody knew what was going on ... neighbours had the tests of their wells in their hands in advance. People felt involved.

The company was focused on safety and environmental measures. Now they are looking at what the results are to determine the potential. It could turn what may have been a sad story regarding methane in the Stellarton area to a positive story for all of NS.

People are always asking me about fracking. It doesn't matter if you're going to frack the well or not, they still ask. That's why we are conducting an independent review on fracking. I told Wheeler when I met him that I wasn't going to tell him what I think about it because I don't want to taint the process. I have my own opinions probably like every Nova Scotians but I want them to do their own work. The feedback so far has been very positive.

People know that there will be studies coming out that they can read. We'll get the review back this summer and people will get to comment and we'll make a decision then. We're doing this in the NS context based on science because what works in Oklahoma or Ontario doesn't necessarily work here.

Many geologists tell me that NS has a fractured geology. The decisions and report will be FOR Nova Scotians. What works for Nova Scotia.

I talked about LNG opportunities briefly. (There are folks here from Guysborough actually today.) LNG opportunities are part of our plan to maximize the existing and developing assets in our onshore and offshore.

There are a number of parts to the natural gas story. The first part is access. How do you get it here. Are the prices higher here than they are in Boston. That's a problem for all kinds of reasons. How do you get it here... to heat your home... make fertilizer, and so on.

Recently, we met with Spectra Energy shortly after they announced the Atlantic bridge process which would bring more gas into NS and level the price between Boston and Halifax. This

combined with the Alton natural gas storage process would put us economically on a more level playing field and would open doors to others things like petrochemical industries and so forth.

Then we take our existing infrastructure and the Maritimes and Northeast Pipeline from Goldboro which would allow us to market our gas when it's economic and go back and market it the other way, into New England, or bring Western Canadian or US gas into the market. It puts us in the middle of a loop that flows both ways. That expansion by Spectra will allow options in both directions.

Our natural gas projects in the offshore especially, and LNG projects are being driven by the needs of Asia for the most part. There is a glut of gas in the Marcella Shale and we all understand that. But the question is how you serve countries like England, Germany and Korea and so forth. Peridae Energy plans to develop and operate an LNG plant in Goldboro which includes a tanker terminal and marine facilities. They recently received an environmental assessment. It's 5 million metric tonnes to start – approval is for 10. It's scalable. Apparently, they can stack these things which make it infinitely scalable. Those are the types of projects that can make a lot of sense.

They are looking at the economics at the moment.

Also, H-Energy from India plans to build an LNG plan export terminal in Melford Point.

They are not quite as far along.

And across the strait in Canso, there is an existing oil transshipment facility.

NewStar's oil terminal can move 1.7 million barrels of oil a day. There markets changed too. They are looking at what the opportunities are. They are looking at bringing in western

Canadian crude by rail...or an expansion of pipelines or whatever the case may be, to take advantage of bringing it to tide water.

The other side is renewable energy.

These are exciting times to be involved in the renewable energy business.

We are transforming how we generate electricity in this province.

Some of this is because we have to.

Someone said to me at Dal the other day how great it is that governments sit around and create renewable targets.

The reality is there are world treaties...there are world realities that mean that coal prices are going through the roof. There are stability and renewable targets... there are federal greenhouse gas targets.... those all have to be addressed. It doesn't matter who it is – someone is going to have to address the issue of meeting price stability and diversity.

We had something like 95 per cent of energy just a few years ago generated from coal. It doesn't matter what you do. If all of your revenue or expenses come from one product you get hit really bad. You need to diversify. It's about creating a portfolio.

We have a target of 25 per cent of electricity from renewables by 2015 (we will meet or beat that target) and 40 per cent by 2020.

The federal government has a coal burning legal requirement that drives this and has significant implications. Under the equivalency agreement signed by previous government, we are able to manage that in a much more cost effective way for Nova Scotians. By doing that, we will save over \$1 billion a year for ratepayers. I said it made sense when I was in opposition. We're doing this in a Nova Scotia way. Coal plants will be phased out in a more orderly fashion other than just walking in and throwing out the keys.

We've gone from 90 per cent electricity generation in 2007 from coal to 57 per cent in 2012 – and now most of those renewables come from our own backyards (tides to a small extent, wind, hydro a lot of it).

In the next few years, we'll be connected to the Lower Churchill hydroelectricity project.

I was asked this morning on the radio about if I'm happy with the Maritime Link project. It's no secret I had concerns with the original arrangement but my concerns have been dealt with and we've managed to change the agreement. I can tell you, though, when I go to Newfoundland sometimes now, I am not a well-liked person on the Nfld open line shows so that makes me think we got a good deal for Nova Scotians.

In 35 years we have a guarantee on how the price is managed on the surplus energy now. It means it's predictable. We also don't have to buy it if there's a cheaper option. Premier and I met with Siemens on tidal and they predict that by 2030, they can bring the price of tidal down to the price of other sources in existence today and they showed us how they would do that. That's 15 years from now – that's not bad. They also figure there will be 5000 direct jobs associated with tidal for this province by that point. That's huge.

There is also the COMFIT program. We're committed to continuing that. You'll know that we recently made some changes to the program. One of the challenges is that there are a lot of approved projects but not many have been built yet. We had to step back and figure out which of these are actually going to happen. It's hard to raise financing. They need the approval then they go for the financing and then approval from municipalities. We're working with them to try and see what happens. We'll adjust the program as we go.

We also introduced legislation to allow competition in the renewable energy market to sell directly to customers. There may have been certain elements in the COMFIT program that may be able to use that option.

The energy field is broad.

I get asked if all my time is being taken up with electricity. People call me and write me all the time for all the things you see in the newspaper. But that isn't our sole focus. I hope that you can see we're focused on a lot of different things.

We are trying to push ahead on renewables.

We're trying to deal with rates. NSPI is a private company. We don't walk into the legislature and set the rates for the power company. But we try to create the conditions and the opportunities that don't put pressure on rates unnecessarily or will help mitigate rates or learn how to be more competitive against other jurisdictions.

On the oil and gas side, we have a group that is working very hard. Sandy and Kim are running around the world telling people about this province and the opportunities and that people know there are opportunities.

And we have the sustainable transportation side as well.

My role in all of this is TO help maximizing benefits for NS companies. How do we make sure that they know we're here and what the opportunities are...for example, if you have a \$1billion offshore program... and we are going to work and make sure we get as much as we possibly can and that we plan for success.

We are trying to plan for success...in oil and gas... in tidal.. in renewable energy.. and maximize opportunities to seize investment here in the province.

I appreciate your time this morning and I'm happy to take questions.