

Expert Panel Public Presentation Session

Review of Environmental Assessment Processes

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Halifax Marriott Harbourfront Hotel, Halifax, NS

Expert Panel:

Johanne Gélinas, Chair;

Doug Horswill;

Rod Northey;

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SUBJECT/SUJET: Review of Environmental Assessment Processes
Halifax Public Presentations

OPENING REMARKS

Kelly McGee: Bonjour mesdames et messieurs. Bienvenue à la réunion publique pour le comité d'experts pour l'examen des processus d'évaluation

environnementale. My name is Kelly McGee. I am a member of the secretariat that was set up to support the expert panel. There are other secretariats in the room and secretariat staff at the welcome desk just outside of the room. Please feel free to speak to them if you have any questions.

I'd also like to take this opportunity to note the emergency exits, two on this side of the room, one behind you and two to my left. Before we begin today I would like to make sure that all of your cell phones and electronic devices have been silenced. I also want to note that the expert panel is an independent non-governmental panel and is not part of the Canadian Environmental Assessment Agency.

There will be an audio recording of today's presentations. Following this we will be creating a written transcript of those audio recordings that will be posted on the panel's website. Each presenter today has been allotted a total of 15 minutes so please focus your oral presentation on your key messages and speak for a maximum of 10 minutes so the panel has an opportunity at the end of your presentation to ask questions.

If you are presenting today please be sure to check in with the secretariat staff at the desk outside the room. We also encourage you to visit the panel's website at www.eareview.ca. There is a wide range of information on the website and a number of different ways for everyone to participate and share their views. Mme Johanne Gélinas, chair of the expert panel, will oversee today's event.

Johanne Gélinas: Bonjour tout le monde, good morning everyone. My name is Johanne Gélinas. I have the pleasure to chair that panel so let me first introduce you my colleagues, on my right Renée Pelletier and Doug Horswill and on my left Rod Northey. We will start right away. I will turn to my colleague to say a few thank you and acknowledgments.

Renée Pelletier: Before we begin this morning we'd like to acknowledge that we are on Miqmaq traditional territory and acknowledge any elders, chiefs or community members that may be in the room.

Johanne Gélinas: Thank you Renée. The panel was named by the Minister of Environment and Climate Change. Minister McKenna was directed by the Prime Minister to achieve three things. The first one is to regain public trust. The second is to help get resources to market and finally to introduce new fair processes related to environmental assessment.

The mandate is pretty straightforward. It is to consider the goals and purpose of a modern day environmental assessment. It's to communicate and engage directly with a broad section of indigenous people, interested groups and organizations and individuals. You don't have to be experts to share your views. You just have to have ideas to share with us on how we can improve these processes and also to develop on

our side, that's the outcome of this whole exercise, to present recommendations to the Minister.

These presentation sessions are an opportunity for everyone to share their views on environmental assessment processes. Our sessions are open to all Canadians even though if we have designed different events, some more for indigenous people, others more for public in general. You have the different options that you can participate to and it's not exclusive. You can do a presentation today and you can participate to our workshop also tonight or even tomorrow for the day dedicated to aboriginal communities.

(Technical difficulty) mentioned already that if you go on our website you will find a lot of information. I guess there is not that much to say at this stage so we'll spend two days here in Halifax. I would like to open the session this morning by inviting Ms. Wanda Baxter from the Sierra Club. Good morning and welcome. Just to remind you we have 15 minutes. I believe we will ask you to really highlight your key points and then we can have a dialogue together.

WENDA BAXTER, SIERRA CLUB

Wenda Baxter: Thank you. I do have a brief presentation prepared but the points are short so I'm just going to read from my presentation. A little bit of background on what I know about environmental assessment, I graduated in 2001 from the University of Calgary with a master's in environmental design and my thesis was on an assessment of cumulative effects assessment.

I did a review of 12 large scale industrial, well not just industrial but large scale assessments done to that time and at least one had not yet been completed. That's my background. My background with the Sierra Club Canada Foundation, I've worked on and off with Sierra Club since 2007. The current project I work on is the prevention of wildlife vehicle collisions, so environmental education primarily.

I have done some work on environmental assessment as a planner primarily with screenings and also I've done a series of lectures primarily on the White's Point quarry, the panel review there which I will refer to. That's me. On behalf of the Sierra Club Canada Foundation, Atlantic chapter, which I am on the executive committee and speaking as a Nova Scotian and environmental professional, thank you for the opportunity to contribute ideas and suggestions to improve environmental assessment processes in Canada.

Sierra Club Canada Foundation has been a voice for the environment in Canada since 1972 and we have participated directly in a range of environmental assessments.

Notably we were actively involved in the White's Point quarry panel review proposed for Digby (inaudible) over a decade ago. I will refer briefly and this is one of my main points is that current challenge to the Canadian Environmental Assessment Act and a decision of the panel review at White's Point through a NAFTA challenge.

I am sure that a number of people today, I actually know that a number of people today will speak to the White's Point quarry environmental assessment and the significant effort made to voice opposition to the proposal and gather evidence on the projected environmental effects of the proposed mine and shipping routes. Currently Sierra Club Canada Foundation is working with Eco Justice Canada and East Coast Environmental Law to challenge the successful litigation against Canada that Bilcon Inc., the proponent of the White's Point quarry mine, argued and won on the basis of NAFTA challenge in response to the White's Point quarry EA decision which was no.

The case is not well known to most Canadians at this point but the outcome will essentially affect us all and the NAFTA win already has, that a company can via NAFTA challenge defeat and nullify a decision made under the Canadian Environmental Assessment Act process. This was the pre 2012 act that panel review occurred under, that that kind of challenge can happen means that our own environmental laws can be trumped by international law currently. It is concerning to say the least.

Therefore a main priority of this review and of reforming environmental processes in Canada must be to trade proof the CEAA Act and to give it some teeth in other ways as well. The NAFTA challenge of the White Point quarry panel review decision makes the need to strengthen the CEAA Act an urgent and critical priority.

I have the next point I want to make is about bringing back the precautionary principle. The Canadian Environmental Assessment Act of 2012 states the government of Canada, the Minister, the agencies, federal authorities and responsible authorities in the administration of this act must exercise their powers in a manner that protects the environment and human health and applies the precautionary principle.

The precautionary principle, it seems an antiquated idea in ways but there it is still in the Act though it is not a guiding principle in practice if we are honest. There would be no fracking in Canada if we were applying precaution. A note on the precautionary principle which I thought was interesting when I was preparing this. I took a look back at what precautionary principle is all about because one of our members suggested I talk about the precautionary principle.

I was like I think this is relevant at this point was my comment. I thought about it and looked at the Act again. Just because it isn't common for us to talk about precaution doesn't mean it isn't what we should be doing. I thought it was interesting where precautionary principle came from.

It came into English as a translation of the German word (unintelligible). An alternative translation might have been foresight principle which has the advantage of emphasizing anticipatory action, a positive active idea rather than precaution. I really enjoyed reading that because I think we do talk about precaution and hear negative. I know that I saw something in the newspaper a couple of weeks ago about the challenges to the pipeline decision out west and LNG happening.

I saw a headline that read we're not protesters, we're protectors. I think reframing how we're thinking of some of these things is important because nobody likes to be the negative Nelly in the room but someone has to be sometimes. Environmental assessment, these are my key points, in order to be effective needs to have teeth. It needs to be able to require and enforce what I've just talked about, application of the precautionary principle.

Implementing panel recommendations, I say that just for my own research and what I found actually happened, mitigation bonds and financial assurances, monitoring protocols and reporting timelines and this is not something that we currently do but I think it's an interesting idea. Fines and reimbursement plans are not carried out and I'm referring particularly to the Piccadilly mine in New Brunswick.

Transparency and fairness, one of the reasons I never worked in cumulative effects assessment although I was offered a job right out of school to work on cumulative effects assessments in the oil sands region was I really didn't know how I could do work objectively if my boss was the proponent. I don't know how to fix it and I don't know what the mechanism is, but I don't know how you can do that work objectively, the science.

The potential for the decision of EA to be null, I say that with direct response to the White's Point quarry issue and inclusion of emissions reductions and sustainability target. I have one more comment that is a bit blue sky but in the midst of election in the United States I'm in constant conversation over PR and money.

Even in our own province it was on the radio this morning about having transparency on where money comes from is the limitations on the pro project PR. I actually know someone who does some PR work for big companies going toward projects. I think that's worth looking at, how much effort to put a positive light on a project, how much money is going into that. Is that a real fair playing field?

In summary, this review presents an opportunity to develop new effective legislation and processes that result in impartial EA process that reflects the government's policy objectives and addresses society's most pressing needs in the areas of climate change, transparency and accountability to the public, the rights and interests of indigenous peoples and communities and environmental protection.

It doesn't feel like 16 years ago have gone by since the CEAA review which I took part of, the first five year review and the main problem is the same. The environment is continually and incrementally being degraded by how we develop and live and want more. We can't seem to keep ourselves from doing it. If I have one thing I want to contribute today it is this. Now is the time to put the environment at the top of the list of environmental assessment processes.

Sixteen years ago there was a time it seemed to turn things around. People used to talk about the paradigm shift that needed to happen. It was 1987 when some of the best minds and scientists in the world got together, looked at the science and trends and saw where we were headed and submitted the Brunton (ph) report and laid out a strategy, given the name sustainable development to try to change course.

That was 1987. That hasn't happened and it has to happen now. Please have the foresight and fortitude to give the EA process teeth and more effectiveness. Thanks very much.

Johanne Gélinas: Thank you very much Ms. Baxter.

Rod Northey: A few things. The CEAA 12 compared to CEAA 92 did try to add some teeth on enforcement and the life and I'm sure you're aware of that. What are your thoughts about what it did as compared to CEAA 92? Is it an improvement at all in any of the enforcement aspects?

Wenda Baxter: I think taking out some of the key triggers, there were major triggers prior to 2012. I know that triggers involving the Fisheries Act and water courses, those things were taken out and I know those were main things that caused projects to go to a higher level screening. I think that's a real loss. The kind of teeth, I don't actually know the 2012 Act as well as I knew the previous.

Rod Northey: It added some enforcement. For the first time it became an offence to breach various parts of the Act and then added some enforcement policies. As compared to 92 at least on the issue of enforcement it took a step towards making it more onerous and creating some compliance obligations. I'm not going any further. I'm just giving you some background.

Wenda Baxter: I know that in particular, the reason I mentioned Piccadilly I think it's an interesting case and it's a different case. If you're talking about foresight over caution, to begin with that that environmental assessment happened of potash mines in Sussex New Brunswick. It's something I paid attention to. It's where I'm from and grew up.

That potash mine went ahead and four years later has closed. Part of what's happening there is the company is suing the engineering company that built a couple of the mine shafts which I find interesting because the company has lost. The mitigation plan is to

do some controlled floods and rely on flooding to clear the mine. Yet they're suing an engineering company.

I wonder, the community has clearly lost but there are no teeth for that kind of thing. It was slated to be a 73 year mine. Four years later it's just closed. That kind of thing, I mean how do you fix it? I don't know but ideally if a project like that goes forward it doesn't close in four years. The same as I see the Donkin (ph) coal mine in Cape Breton that will very likely go ahead.

I don't foresee 20 years down the road Canada wanting a lot of coal so I wonder why are we doing coal mines at this point and can we get that kind of thinking into environmental processes, so a bit of a long answer.

Rod Northey: Trying to deal with this question of a conflict of interest and the arm's length science, there are some other regimes out there that do try to do that. Have you looked at into whether any regime might satisfy in Canada or abroad?

Wenda Baxter: Honestly I can't recommend anything on that. I've really found this a difficult one because people say – I mean there are different options. Whether or not it's a professional certification, I've thought of certainly the science peer review. The amount that I looked at in terms of the amount produced from environmental assessments that – like I don't know who is looking at it and really going through. It's a lot of material.

If there was a way to get some of that science and the data shared publicly I think that would be useful for the reputation of scientists to have more names attached but how to set it up, I'm not the person. Hopefully someone else has really good ideas on that.

Johanne Gélinas: Have you thought through how we can translate in concrete action the precautionary principle within the --?

Wenda Baxter: I think that it's linked to the idea of no. If we honestly don't know enough sometimes I think it's okay to say no. I don't think – I haven't seen that it's common. The environmental assessment is not to provide an answer or to really deal with a no or to state precaution. At what point does a project go forward but this we're not going to do, this part of it.

BRUCE CAMERON, ENVIGOUR

Johanne G elinas: I would now invite Mr. Bruce Cameron to join us. Good morning Sir. Just to let you know that all the submissions that are presented to us will be made available on our website.

Bruce Cameron: Thank you very much for the opportunity to present to you this morning. Welcome to Halifax. I hope the next two days will be very fruitful. One of the things I think you'll appreciate right off the top that a lot of the issues and things that need to be dealt with from the development and environmental perspective happen in the ocean.

This morning I'm going to speak mainly to the issues surrounding environmental assessment, regulatory processes and public policy dealing with energy from our oceans. I'm speaking as an individual and part of my company, they do policy consulting. I have recently retired from the province of Nova Scotia where I spent 15 years dealing with energy policy development, particular emphasis on regulatory processes in the offshore both for oil and gas and for marine renewables.

I have considerable experience over the past 15 years working through consultation processes, working nationally as well as regionally and locally on developing strategies, plans, programs and initiatives that can integrate the consultation efforts that take place in the regulatory system as well as the consultation work and engagement with stakeholders on environmental assessment, dealing with a lot of processes nationally to try and pull all of this together.

I've had experience in developing the regulatory processes in Nova Scotia and for input to the federal government in a various number of things that are listed there and I will not read to you but I give them to you as background that I've had some experience in this area.

The consultation processes are really from a federal government perspective grounded in a general Cabinet directive that says that this is an important part of how we do things in a democracy. Really what we need to do is to integrate all of those consultations. We need to try and find ways we can build trust and confidence in regulatory environmental assessment processes through science and knowledge.

We need to enhance public government investor confidence. That's the framework for what I'm going to try and discuss. From my perspective and my experience it starts with policy. It starts with what does the government want to do. What is in the public interest? What kind of activities and things are we going to support, allow in our country?

I think it needs to be recognized that when governments do major public policy decisions they often and I say with precautionary principle, they often do significant consultation efforts. That's been the hallmark in Nova Scotia that when broad energy policies are being developed there's a significant amount of input from the public. We

start with a consultation framework that involves the policy itself as both consulted and the best framework. It is also owned directly by the government in a mandate from the people.

In a perfect world somebody runs for office on a policy to do something that's a mandate and therefore at a broad level all of the things we need to discuss are grounded in policy and it becomes the framework for understanding that would then develop and it's the first test. One of the tools we have often used in the ocean energy sector in Canada is the strategic environmental assessment.

The reason why I want to talk about this and again later on in the presentation is that by setting out this very broad consultation effort to establish basically the who, what, when, why of the policy. You have the policy and then you have an SEA. What do people think about it? What are the issues that need to be addressed before we get to a project. This framework has been used in Canada, in Nova Scotia both for renewables and for non-renewables.

You may want to address the issue of how effective it's been and how it can be improved but as a basic principle having broad strategic environmental, getting in social and environmental issues on the table before projects appear is a very useful public tool and it's been used successfully in Nova Scotia. In fact we have embedded it in law in Nova Scotia dealing with marine renewable energy.

It is challenging for the public before there is a project to focus in on this issue. I've spent a great deal of time trying to understand when the public is interested and willing to be engaged deeply about things. The truth of the matter, broad public attention doesn't normally come until there's something concrete on the table. I think it's incumbent upon governments and agencies and departments to take that step and do as much as they possibly can to understand in advance whether this is going to be acceptable or not, where it's going to be acceptable, what are the issues that need to be addressed.

It's very, very critical in setting out those science knowns and unknowns at a very early stage to develop better research in general. I think this is something that is really important. We spent a lot of time when I was on the oil and gas subcommittee of the Minister of Environment's regulatory advisory committee, federal and we looked at the issue at that time about how SEA's would integrate with the project EA's.

There was a strong feeling that it could be not just another process and then start all over again when you're doing the project. You had to learn things from the beginning from the broad that would then be useful and taken into account when you start instead of here on a project you start here. It really is important that you frame an SEA process that it is something that will then feed in to projects.

Johanne G elinas: (Off microphone) I know it's a bit long. I don't know how much you want to spend time on it because I'm sure my colleagues will have a lot of questions for you.

Bruce Cameron: I'm more than willing to speed up and to answer questions. There is a lot of integration in the ocean. There's a lot of other processes, a lot of other acts and I want to acknowledge there is a significant obligation with respect to aboriginal people.

The fact that I have not spent a lot of time in the presentation focusing on that is simply a matter of time and space but I want to acknowledge that it's another whole issue that I'm not dealing with a lot. The other part that is important is there are multiple players who have knowledge and need to contribute to all of this.

In an ocean energy environment we've developed a lot of players to support science and it's important we take that into account. I want to also say that conducting a useful public science needs to be a priority particularly when you're dealing with topics such as marine renewable energy where there has not been a lot of science experience on the type of technology we're using today.

We have had to invest provincial money on that science, work carefully with DFO and now there needs to be more because the public science that needs to be done to provide the public confidence and it is so new that there isn't millions and tens of millions of dollars of industry money to go into the science.

Trailblazing we're doing for very good reasons but there has to be a public commitment because it doesn't work the same way as oil and gas. Even oil and gas has public frameworks for research and they have to have science. What have we learned out of all of this? It's not easy. All you have to do is read the paper to know that when you get down to it and I'll say briefly I've had a lot of experience dealing with systems to deal with renewables, wind in particular onshore and it didn't matter.

Even if we said the projects had to be owned by community players, the more you went down and drilled there still were pockets of local opposition. I think it's important to frame it right off the top that it is likely impossible to please everybody all the time but you've got to keep listening to people and you've got to take it in, provide opportunities for engagement for the proponents which is what we did on onshore wind.

The big policy decisions matter. When Ministers are making the final decisions on EA's, regulatory decisions and so on, they've got to know it's consistent with their policies that the project go ahead at a high level. That's where they pay attention. It's important for bureaucrats. It's important for agencies and scientists to make sure the details are right.

You've got to have a system that you give the Minister a decision to make which is based on an understanding that it's going to be consistent with his or her government's decision. Fatigue is a big issue. It is a very big issue and my only solution to it is to start going in and using more and more of the tools like social media and the internet to facilitate engagement, learning and experience instead of just requiring people to come out to town halls.

It's important to – I'd like your panel to point out the way to connect regulatory and environmental assessment processes. You need to point out that these things need to happen in a consistent way. You've taken a lot of time in the 2000's to look at how to integrate regulatory and environmental assessment processes. There's been a great deal of success. It needs to continue. It needs to be stronger and it needs to be properly funded.

In other words you can design an environmental assessment process where regulatory decisions need to be made. There are points and if they're not properly funded then they take too long. If they take too long it frustrates people and it frustrates investors. It frustrates everybody. If the government is going to be committed to a good environmental assessment system it needs to fund it properly.

We need to have improved outcomes. The confidence and I won't go into detail on this, there has to be public confidence, there has to be government confidence and there has to be investor confidence in any regulatory system. It needs to have more predictable outcomes. If governments don't want something to happen they should say we're not interested in this happening. This isn't part of our public policy.

If it is a public policy then the role of the regulatory process and environmental assessments should be to say these are the conditions under which those activities may take place and from time to time not here, from time to time not this project. We can't be continually going through regulatory decisions and environmental assessments that are either not supported by government policy or by lip service only. It's not fair to everybody to say now you go do it.

I've talked about science. It's important to have traditional knowledge and improve focus and funding. It really is important to have science funded publicly. It's important for the regulatory processes to be properly staffed. It's important for everybody to do things in a timely and efficient manner. The SEA I talk a bit more about it and I'm going to just end here. I'll wait for questions.

Johanne G  linas: Thank you very much Mr. Cameron.

Doug Horswill: I'd like to start off with the notion of what you would tell us makes or is necessary to make a consultation process legitimate and accountable. What are the key features that should apply to it? There's always many sides to any coin.

Bruce Cameron: I think it is important to establish in the minds of people the proper path for how to influence the policy framework and also once the policy framework is done, then what does the regulatory and environmental process and what are the consultations about because we've had a great deal of disconnect over these processes in the last while particularly dealing with non-renewable resources where the feeling of many of us was people are using regulatory EA processes and consultation to get at a broader public policy which is about climate change which is about how we will develop our petroleum resources.

The key to answer your question is to ensure that the government if it's set a policy framework that says it wants these things to happen, then the consultation is about how and you need to frame the dialogue at that stage. It's important to delineate that. Sometimes you're going to – the processes just need people to have their say and that's fine but it is important to be able to lay out in a realistic way what the consultation can be expected to achieve.

I'm not sure. I think in many cases governments have chosen to throw everything into the EA process and have from time to time backed away from their other obligations and put too much on the EA process.

Doug Horswill: The notion that you've laid out, policy first as a broad question should it not then a strategic EA and then a project EA? Can you talk more about the integration of those last two steps? Could you point us to anything in the literature or practical examples in Nova Scotia that would help us understand that connection and the best way to operate it?

Bruce Cameron: I can subsequent to this provide you with more information in Nova Scotia and the marine renewable energy legislation we passed about a year ago which calls for and embeds SEA's that have been done in the Bay of Fundy to determine the circumstances in which there should be activity. In the marine renewable energy area it's a further tier. The first tier is policy. We would like to have marine renewable energy.

Second tier is strategic environmental assessment to determine the broad first research agenda. There's now an obligation to go in and do planning in an area where we think development is going to take place. That planning will have a great deal of public input and background and information that if we're going to develop this area because there are only certain spots where the resource is prime.

All of that is embedded in legislation. We've got several policy papers, consultation documents that went through to get to that. Then the licensing is intended to be a fairly routine matter. We've already consulted that this part of the Bay of Fundy is a good place to have the resource. These are the mitigation measures. These are the closures. These are the things that need to be done.

When it comes to somebody applying for a license, that should be a routine exercise. By the way, most of that work needs to be done on the public dime because again there's no proponent. There's nobody to fund it. It is done in that way. I'd be glad to share that information with you.

Johanne Gélinas: You have done the policy work. You have done the SEA's. Now you're having a project which will create much more GHG than expected and doesn't fit the policy framework. To go back to Ms. Baxter, in your mind does that mean we can say no to a project?

Bruce Cameron: I think if you're faced with a project that hasn't been framed properly in terms of policy or the direction set in the SEA, absolutely. Otherwise you don't have the confidence in all the other processes. You can't have the quid without the pro quo. You can't say the system is going to be more integrated and simplified and more to have somebody come out of the blue and give you a project that wasn't what was originally assessed.

Johanne Gélinas: A proponent will do his own environmental assessment study. Is it the role of the proponent or the government role to link the project to the policy framework or it's the job really of the government to do that and already give guidance up front where the proponent has to go with his project if it wants to fit within the framework?

Bruce Cameron: I think it's probably the latter although I can't say I was fully understanding the first part. I think it is important that when a project proponent comes forward they can frame their project in terms of the public policy. I think there needs to be framed in terms of how other regulatory decisions, how other projects, other things like an SEA, it really is there. The burden of proof belongs with them.

It either is a compelling argument or is not. It's criticized by others and then the panel or the EA process the officials make their determinations. In terms of the science done by a project proponent as opposed to public science, I think it's important that we evolve a standard that the science that is brought forward is being done now by professional engineers who are certified and have professional obligations.

I think that generally it would be better to bring a lot of that great literature experience done not just by peer review to a higher standard of scrutiny and find mechanisms to bring experience into the system. The other point particularly when talking about oceans is we are not isolated in Canada. There's a great deal of experience elsewhere in the world.

Too often our regulatory decisions are made as if we are in isolation, that evidence of what happens in the North Sea, evidence of what happens in Germany or Sweden is

not brought into account when it could be very relevant. We need to find ways of both broadening and also ensuring high quality of the information that comes forward and providing those kinds of tools and standards and pathways and guidance can provide a way to have much more relevant information brought forward for whoever is making the environmental assessment decision.

Johanne Gélinas: Have you ever thought of the possibility to have the EA done by the government instead of a proponent?

Bruce Cameron: I tried to have that done once. It wasn't allowed. It was to do an environmental assessment offshore Nova Scotia that would be funded and because it was to be done well in advance. I was told no, that was not – the federal government wasn't allowed under the Act.

I think that I took that experience into when we were designing all the legislation dealing with marine renewables under provincial, we embedded the public doing in effect many of the things that are part of an environmental assessment and build them into the regulatory system and built them into things that needed to be done publicly and funded a consortium of universities in this province called Offshore Energy Research Association and gave them millions and millions of dollars to do research on these kinds of things.

I think if there is not a strong well-funded proponent capable of contributing to the cost of approving the project, that it should be quite permissible to be doing public environmental assessments, strategic environmental assessments for a pilot project or a prototype on public funded basis.

Rod Northey: I want to follow up on this Nova Scotia process. It sounds like there are multiple phases. I'm going to use phases because there are steps. The first phase you have a policy. I want to see if I've got the outline right. You have a policy, then you do an SEA of the policy and these are the two things you're focusing on with us.

Then you said the policy and the SEA will lead to some specific areas and I would call that more of a regional study, a regional EA. This is the first question. Does that next layer when you get down to a specific area, does it get an assessment of some sort, a regional study? What's the framework?

Bruce Cameron: This is our innovation and an offer on how to build proper public confidence is that we have set up a process that requires a marine renewable energy area to be established. That's a planning exercise but it's getting down to some fairly detailed things. There's a requirement for our Natural Resources department and others.

We work with the federal government through DFO and they've agreed to collaborate on this, to provide as much information as possible as to what are the other activities in that area, what are the known - it's very much a socio planning exercise as well as an ecosystem because it takes into account what the other wildlife using the area currently.

Beginning to take the science into consideration in public comments about whether it is appropriate for the activities to be happening in their backyard and identifying all of that process to be able to say for this defined geographic area we're going to accept offshore wind that is at least 20 km offshore. In this area we will allow for instream tidal devices that are anchored on the bottom with 20 metres of clearance to not impede shipping.

This area will not allow for devices that float on the ocean but it's okay over here. There's potential for a details planning exercise to say how the activities will take place when the government chooses to license and call for competitive bids.

Rod Northey: I'll call that a regional plan. Is there a requirement in the legislation that it be consistent with the prior SEA and the policy? Are these things directly linked in legislation or are they linked really as a matter of process only, one follows the other?

Bruce Cameron: I think it's more the latter in the sense that there is an obligation in the legislation for an SEA to be done. WE assumed it wouldn't do all of that work in the legislative process that then says what follows is the planning. It is another significant piece of information would be taken into account but part of it is the difficulty in assuming what the SEA will do.

When we did the first SEA in the Bay of Fundy – we've done two – we did the first one. It was really a matter of people were having a lot of trouble fixing their heads on what we were talking about. It was new. This was 2006. There weren't that many instream tidal devices anywhere in the world. They didn't fully understand. We didn't fully understand where the best resources would be.

It was a fuzzy discussion the first time around. The second time around we got more detail. We realized because of this process we needed a detailed planning exercise. The SEA in this case helped frame to get down to the nitty gritty of planning and there still will be because at this stage we're talking about projects that will be more than 50 megawatts, will require an environmental assessment at a project level.

Rod Northey: We have a policy and an SEA. Then we get a regional plan. Is that a public process and an EA process or a public process only? What I mean, is that a land use plan and an EA as well?

Bruce Cameron: This is where I make my plea for integration. We're going to be doing all of this work to engage with people, stakeholders. We're not going

to keep everybody happy but we will have conducted a series of exercises that people will then make plans to invest. All we're asking is that the EA process take into account all of that consultation and engagement when you're designing your consultation plan.

Don't start from ground zero. I know that this won't apply in a lot of cases. Not everybody is dealing with this staged, methodical and adaptive by the way because it's single machines that can be, you can stop, you can pull them out. It's not like building a hydro dam. The whole premise of this is there is a series of processes and planning and if you can find other places where that's happening then you should be looking at making sure the EA process is open to all the information that's been collected and recognize that the work that's been done already. I think it should be framed in law. Right now it's a fairly isolated system.

Johanne Gélinas: One last question. I would like to know more about the harmonization process between the fed and the province. Will you qualify that as a successful integration process?

Bruce Cameron: The process I was most familiar with in terms of operating and integrating a complex regulatory environment as well as the EA process was for the (inaudible) project, an oil project offshore Nova Scotia, offshore natural gas project. They had gone through to the end of an EA process and then stopped.

There was a lot of information that had been collected. There was at that point it was the first time we were going to try and run regulatory decision approvals in parallel with an environmental assessment process. There was a requirement because there was a regulator, the Canada Nova Scotia Offshore Petroleum Board, was able to manage both the EA process and the regulatory process and facilitate the information requests back and forth.

This is getting down into the nitty gritty but it's absolutely critical if you want to have an efficient process that information applied to one place can be transferred to the other. It is also that sometimes the processes can be instead of information requests it's often comments. I'm just saying, there's all sorts of things going on in my head, suddenly Donald Trump appearing and asking questions.

The questions are there and they're often by folks inside the federal government. It's not necessarily somebody outside looking for this information. Has this been considered or wonder about. Somebody needs to play the role of framing that into a question that somebody can answer. That's part of the bureaucracy behind the scenes that needs to be properly funded and staffed to make the process work.

Right now I'm given to understand that too often everything grinds to a halt while things are thrown back to a proponent. It doesn't have to be a collaborative process but it has to be a process where somebody understands what the question is and is given enough guidance up front, that was another part we were struggling with in the 2000's.

How can the regulators give enough guidance to a proponent that they'll understand the questions they're supposed to answer. All of these things are important ways to facilitate in a practical level an efficient and effective process. You can't go in and get your approval if you don't know what it is you're supposed to do.

I worked at the policy level with my colleagues in the federal government and Newfoundland and a number of things got put together and some of the processes became more efficient. I'm given to understand that some of it has drifted apart as people have less money to put into these things. Some of the ways we improved the effectiveness of the bureaucracy and being able to manage the processes probably dissipated since the funding cuts. That's another important consideration.

Johanne Gélinas: Thank you very much for your presence this morning. We'll now go with Mr. Collins. It's your turn.

NORVAL COLLINS

Johanne Gélinas: Good morning Sir.

Norval Collins: I'm moving up the list very quickly. It's just like at the DMV when someone took a number and didn't stay to appear. Good morning Madam Chair and distinguished panel members. I appreciate this opportunity to appear before you today as you conduct your review of the Canadian Environmental Assessment Act 2012. I should disclose that I am today not representing but I am serving on MAIAC (ph), representing the electricity sector but today I am representing the company I work for which is Emera.

Emera is a utility company based in Halifax with holdings in Atlantic Canada, in New England, Florida, New Mexico and the Caribbean. Today specifically I'm representing two of the affiliates of Emera in Newfoundland and Labrador but most specifically Nova Scotia Power. I am the director of environmental and aboriginal affairs at Nova Scotia Power.

These companies that carried out various projects involving federal EA and obviously provincial and the most recent one that there has been some involvement is for the Maritime Light which is bringing electricity from the being constructed Muskrat Falls in Labrador project, so the cable that comes across to Nova Scotia to bring power to Nova Scotia.

That project is one of the projects that are an Emera Newfoundland and Labrador company is partnering with Nalcor from Newfoundland to bring cleaner electricity to

Nova Scotia so over time we can produce less electricity with fossil fuel so that's one of the projects that's been evolved.

Our company Emera, all the affiliates are very committed to sustainable project development. We look forward to the results of this review designed to provide advice to ensure trust is re-established and efficacy is maintained in the process and balancing those two terms is always a challenge.

The current Act has many positive components that contribute to a somewhat fair and balanced EA. No doubt there could be improvements but much of the Act and its ensuing process are well conceived and can and have delivered successful EA decisions. I briefly want to talk about three areas where we think there's been some positive components to the existing Act.

The first deals with triggers. The format and substance for triggers of the Act are focused at the right level and match the approach used by the provinces. This is a change that was made in 2012 with the new act moving from a lot less triggers basis to more of a list of higher order larger projects.

Environmental assessment is designed to deal with big projects and those with notable sensitivities. Therefore this higher level of triggers meet that requirement. In many cases project responsibilities overlap between the provinces and the federal government. This symmetry of triggers between the two levels is helpful in the coordination of those reviews. I think it makes it a little easier for the province and federal government to work together.

The second point I want to talk about is timelines. This is an area of improvement but still more to go. The inclusion of timelines in the current act is a positive contributor to predictability of process and as proponents that's something we seek because it allows for proper planning and financing for potential projects which is becoming more and more challenging.

The world is moving very quickly and the longer processes take and the less predictability there is, the more challenge there is in obtaining financing or coming together with the proper partnerships in order to bring a project from start to finish, particularly larger projects which can be multi years to construct let alone get planned and financed.

Some adjustments may be required to better accommodate important process aspects including how to properly address the inclusion of indigenous people in the process. Nonetheless, framing process activities within reasonable and known time frames is an important feature of the process. It should be noted that in most cases proponents have already engaged indigenous people and have consulted with stakeholders extensively and earlier than the registration or the formal announcement of a project.

We just can't wait until that moment. The discussions with First Nations people and important stakeholders in an area have to begin much earlier than that and in many cases start even before a project is conceived. It's just about developing those relationships in advance particularly for provincial wide utility companies.

The third area I want to talk briefly about that's positive, we think, is there were three responsible authorities, the Canadian Environmental Assessment Agency, the NEB and the Nuclear Safety Commission. We know that creates some uncertainty because they've had different processes but at the end of the day as adjustments are made to bring those other two processes more in line with policy set forward by the agency and the process they administer, I think it allows for that expertise to occur in the three areas where there is traditionally a lot of expertise.

There are obviously varying opinions across the country but the National Energy Board has a lot of experience in dealing with certain projects and the Nuclear Commission has a lot of expertise in dealing with a very specific area. To allow them to continue to do that provides the ability for those three to retain and develop expertise. It allows other government departments to be subject matter experts to participate in the process but they don't have to duplicate and have extensive – every department has an EA area.

They can have people that can talk about what that department is all about. Is there room for improvement in this area? Probably and I'm sure many of the people you'll hear from across the country will provide great ideas about how that can be improved but I think the analogy of not throwing out the baby with the bath water is where we see that. There's some real value there and it would be better to work with those processes rather than abandon them.

In spite of these many attributes there are a few areas that I'd like to talk briefly about where there could be some improvement. The first one is EA was intended originally as a planning process. It was designed to provide early review of the merits of significant projects. In theory there are state of review mechanisms available for use in federal EA where that applies, provincial EA often in the same or separate projects, strategic EA or regional EA as described by Mr. Cameron or eventually at the more detailed level permit processes.

Different projects are better fitted to start or enter the process for review at different stages. Today there are smaller projects that are handled mostly through permit processes. You have to get an authorization from the Fisheries Act or you need to get provincial authorization. Larger projects with more sensitivity usually trigger some form of EA. In both provincial and federal cases that can be more straightforward or it can lead to a full panel review.

I think matching up the project and its activities with the proper process is important. What's happened however and in particular in the case of federal review projects it's become the one place for all issues, all concerns, all comments because it has been

the one place that things can happen. It's the one stop be all to all vehicle and this has made it difficult for individual projects to move through the process effectively.

There are two brief recommendations in this area. The first is to affirm in your recommendations that EA is a planning process. It's not meant to take care of all the details. There are tools for that. Policy issues are best dealt with elsewhere and more detailed aspects are best addressed at the more detailed permit level.

The second is echoing some of the remarks made by Mr. Cameron which is the role and the re-emergence of strategic or regional EA is a highly underutilized tool. We believe this affords a way to take some of the issues that are belabouring project EA and if we can handle that at a higher level, at a level in advance so that some of the decision making is made.

Then projects that are consistent as you just described in your discussion with policy and a strategic EA or regional EA or a subject EA can proceed in a more direct way and issues that are specific more to that project can be dealt with in the project EA. The most recent example I can see of this approach if not as a strategic is the pan Canadian plan for greenhouse gas reductions and climate change.

It's in the active phase as we know right now at this very moment. I think Ministers are meeting today in Montreal. The federal government made an international commitment on behalf of Canada not quite a year ago and is now working with the provinces and territories to compile a plan that works for each region so it understands it's not one size fits all.

But then adds up to a plan that makes sense on a national basis. This isn't happening easily. As it probably could have been anticipated, each region of the country has different challenges and they're bringing those forward. Each region has taken a slightly different approach to dealing with climate change but nonetheless there is a plan. It's moving forward. It's very deliberate and there's every intention that by the end of the year there's going to be more clarity as to where that's going.

This is going to set the stage for all activities and projects as we see going into the future. If our company wants to do a project of some sort we're going to have to be consistent with that policy review, that probably legislative empowerment through acts both federally and provincially. That's an exact example of taking on an issue, a messy one.

Nobody wanted to take it on, making some decisions, probably an adaptive management component to it. It won't get right, right out of the gate. That type of thing needs to take place. It becomes more challenging for projects that are over a long distance, so major pipeline projects of which we don't have a lot of experience but it's obvious to see that it encounters so many different communities and stakeholders or nations that becomes even more challenging.

Trying to work out some of the issues of that in advance of even contemplating such a project makes sense to companies like ours at the very least. The second area I want to comment on is the role of indigenous peoples. This is one of the themes you have in your discussion paper and your mandate. We highly value and our company Emera we value our relationship with indigenous people. As a company we're working hard to demonstrate our commitment to that relationship.

We're building that relationship far in advance of not necessarily initially in relation to any project but because we exist in the region we believe it's our responsibility to build that relationship and over time to be able together come forward with projects that we'll have already discussed and brought forward for review in a way that's taken into consideration.

However recent court decisions and the broad consideration regarding United Nations Declaration on the Rights of Indigenous People has begun an important dialogue between Canada and the indigenous peoples. The results of that work are not yet known. We don't know where that's going to come out. It is our recommendation that the EA process not be used for this initial dialogue.

Rather it can be informed by the outcomes and then can properly adjust processes and expectations at that time. The last area I wanted to touch on deals with the use of science and traditional knowledge. Emera is supportive of the wise use of all credible science, data, knowledge whether it be traditional or otherwise and other information to assist with a more complete EA review. Mr. Cameron made reference to it in his remarks that if we have good information or information that may be useful if we can find ways to vet that to bring the grey literature and other information forward that will be helpful.

There's never enough information to make decisions. There just is not. It's because it would take millions and millions of dollars to know all of that in advance so decisions are made on what information is available. Getting that information is very useful. One of the challenges we have however is that as that information is used and we move towards decisions and the setting up of monitoring and follow up requirements, there tends to be the development of a fairly lengthy list of things to study.

What happens is the studying sort of happens and the money is spread around to as many activities as there were in the terms and conditions and we know a little bit about a lot of things. That information is usually not contexted. It's the same as perhaps another project. Now we have information that's apples and oranges, both fruit but two different types. In the next project it turns out it's carrots. It's still something you can eat.

The information that's collected is not contributing to assist us to understand as government and as citizens what are the cumulative effects, what are the true impacts

that are happening on an ecosystem basis. Our recommendation in this area is to encourage EA decisions to pick the most important and doable areas to study and to put a more structured and framed monitoring requirement that will not only assist that project but it may assist other projects in the future or to assess the cumulative – no one project can really address cumulative effects properly.

Strategic assessment can look at it on the front end. Panel review decision monitoring from a variety of projects can assist future decision making in an adaptive way. We do intend to make it a comprehensive brief in the near future but I want to thank you for the opportunity to appear today.

Johanne Gélinas: Thank you very much. You have until mid-December to table your submission.

Renee Pelletier: Thank you for your presentation. I wanted to pick up on your comments about (unintelligible). Although I appreciate your thoughts about how the panel should not be re-engaging in its initial dialogue you may be aware that our terms of reference have told us to. That's not optional for us.

I'm wondering given your role as director of environment and aboriginal affairs and you said there were positive things about how you view the importance of your relationship with indigenous communities and you started consultation early, given what you said about that, if you can say a bit more about what your concerns would be with us being mandated to look at (unintelligible) and to implement that in our recommendations.

Norval Collins: Thank you for clarifying and correctly so. Obviously you will look at this. In fact you're going to have a session tomorrow and I'm sure every place you go you have a second day session and a very important issue and to hear views on how that can work. I think it's the core decision as to what exactly the role will be of indigenous people.

Will it be in one extreme nation to nation, co-governance, veto power, full authority to have a say or will it be III use the other extreme of still progressive which would be extensive discussion, full understanding of issues, proper addressing and accommodating with reason all of the issues so that a decision is made is not trampling upon any indigenous community. That's still fairly progressive but I think it's in that range.

I think anything less than that would not be 2016 like is the best way to describe it. I think it's understanding where does that power of decision lie is the piece that becomes more challenging and probably eventually has to be decided on by government. You'll obviously in your deliberations receive tremendous amounts of information and ideas that may assist and help the government so in that sense I fully concur with what you're going to do.

It's that notion of can you make a recommendation that says it should be this when that decision ultimately is a challenging constitutional argument level discussion as to exactly what power, who will have that power. Will it be the same in the north as in the treaties that exist in the west, as the friendship treaties that exist here in the east?

There are different perspectives from the different indigenous peoples and all of them valid and all of them worthy and all of them knowledge based and all of them helpful, in all cases things that we try to be very respectful of. Nonetheless, at the end of the day the federal government is going to have to make a determination.

Doug Horswill: On your point around the EA as a planning process, what's the manifestation of your position? Let me round out the thinking behind my question. Is it that in your view the EA process should not impose conditions, that those should be permits? Is it that they should just be fewer higher level or exactly what are you getting at?

Norval Collins: There is between the size of the project and the impact of a project but for a larger project we would view EA as the means to look at all of the issues and have terms and conditions but at a level that is really saying is this an appropriate project to proceed and what are some of the major things that need to be in place if it were to proceed. Those would be the terms and conditions.

What we found in some projects is because it becomes the only game in town there's an expectation from stakeholders that gets placed upon those making the decision whether it be the panel or the government directly is that it needs to have a very lengthy big issue, little issue and require very detailed information.

The problem we've run into in the past is the expectation of the level of detail at the earlier stages of a project are greater than exists. There's enough knowledge for a proponent of a major project to say we've thought out most of the stuff but we haven't designed this pipe in this part of this system. We have an idea what it is. We've built ones like it. It's probably going to be like that but sometimes the requests for information, the expectations placed by the public and government on proponents to deliver information that is not really available at that stage of the process.

I'm saying we've always viewed EA as a process that says is this project, a fairly large project, is this big enough and this is acceptable enough to proceed or really are there some fundamental flaws here. Mr. Cameron provided a nice framework for in some cases an ability to get at some of those issues earlier on through SEA but there are some areas of society that perhaps an SEA there are already many of those projects.

It's just a policy discussion at the government level as opposed to a full blown SEA but nonetheless there's discussion. When an EA happens for major projects it creates that opportunity. There are many projects that are brought forward not for EA that still get a fairly significant review by governments. They get permits that are issued. The

public is involved and stakeholders are involved and indigenous people are very involved. I think the role – I guess I'm advocating for the EA to take it as far as an EA should take it but not down to the level of a detail that's in a fisheries permit.

Doug Horswill: That leaves us with the tricky bit of where to draw the line.

Norval Collins: Exactly and I defer to your wisdom.

Rod Northey: Following up on that, trying to understand the point about efficiencies and timelines. I think even prior to CEAA 12 the government had implemented in 2010 some timelines. What I'm trying to understand a bit more is how important to your sector is timeline. The reason I ask it that way is, are there things that might be very different than what we're doing now that might speed things up?

If it was speedier I want to throw a couple of things at you to think about. It's possible that having three EA's is not as efficient as one. If it was more efficient to have one would that be the kind of thing that's an improvement? The second one is the model we heard earlier from Sierra Club and it's not the first time we've heard it, is EA done by a proponent the fastest way to do a proper EA? The US I believe doesn't do it that way.

The question that looms with that is if it's an impartial EA would the process be faster overall for everybody including proponents? The question I'm really asking is if you weigh what a timeline means in certainty, is our job as you see it to look very broadly at almost anything that would improve certainty or are there some parameters you would not put on that, timelines? We're trying to weigh. We have a broad mandate as you know and we're trying to figure out how much to open certain boxes up. I appreciate your thoughts.

Norval Collins: There's two or three questions in there. I'll tackle the first one, the three responsible authorities. I don't personally have a lot of experience with the Nuclear Safety Commission but that is a very highly regulated industry that has a very rigorous process for everything they do. If they want to change a bulb on something they have a process.

Trying to have them yield that whole process, the projects they're going to build in the near future are more likely not going to be new nuclear. They're going to be how to clean it up or how to store waste nuclear but they may well be best positioned to participate at least in a significant way. Whether the Agency runs it there but they have process.

They've understood the intricacies of it. I think the same is true of the National Energy Board. People have varying views, I'm sure even in this room of whether or not they have an acceptable process. It would need to be improved to make it more SEA like

but I think the rigour they've had in dealing with international projects, pipelines, transmission lines in multi-province jurisdictions is an expertise that unless you're going to transfer all those people over and put them in one enormous agency.

It still serves the same purpose. That may be one mechanism you could use. I think the expertise they bring in some of these very strategic areas is something not to be lost under whatever mechanism you have. The second thought as to whether proponents should prepare or drive the EA, I think proponents just do the part that proponents are supposed to do.

If proponents didn't exist there wouldn't be a project. At the end of the day the proponent has the mandate to do it, in some cases as we do as an electric utility or they have a wish to do it in an area and the means by which to do it, if there's proper SEA done or policy review it's not clear to me why a proponent couldn't bring it forward. The role of government then and panels they would appoint is to simply ensure that it is done fairly and that there's no bias.

The other thing is the science we have to follow usually has to be peer reviewed science at some level done by either peer reviewed science or engineers who have the oath, so the information is pretty transparent in most cases. I know everything we do in addition to EA we have to go through the regulatory review board in Nova Scotia. Our capital projects, our capital budget, our rates, everything, the utility review board reviews all of those things in addition to whether our EA review is done and that's done very publicly.

There's no reason that proponents couldn't carry out the work they do as long as the process is fair. The third part of that was timelines and how we wrestle with that. The biggest challenge we have in timelines right now is to figure out how to integrate with some timeline willingness, if that's the right word, the off ramps that are there periodically to make sure for example that there's been proper consultation with First Nations.

Figuring out how that's going to happen, putting process in place for indigenous peoples to participate in the process, timelines can then be properly adjusted but there still could be timelines. Then you'd have a sense that there could be some things that are going to take longer but there's hope that the thing could take place within a reasonable period of time.

Johanne Gélinas: One last quick question. Have you done in your work an assessment of how much time it will take to do a proper consultation? Do you have a consultation framework?

Norval Collins: In our company? We don't consult because we're a private company. We're not a Crown. We engage with indigenous people. We consult with people, stakeholders. We make that distinction and properly so. We

start years in advance. Because we already exist in the region and because we already exist in many parts of the province we have a community engagement plan at all times to understand what's going on in communities because we're delivering electricity in all of those communities every single day.

We collect money for the electricity we provide. We have facilities and transmission. We're in a more unique situation than a company that might have a one off project coming into the north to put in a mine. It's quite different. We're trying to grow our consultation in general so that we have a relationship first of all with indigenous people. We have signed agreements with them to provide capacity building. We're working with them on certain projects well in advance of starting the formal pathway of approval to understand how we might work together. For us it starts years in advance for anything of any consequence or size.

Johanne Gélinas: Thank you very much. Thank you for your presentation. Before we take a break I would like to invite Ms. Carla and I don't want to pronounce your last name. You will tell me how to pronounce it. She's not in the room? Then we'll take a short break, fifteen minutes. Let's reconvene at 10:50. Thank you.

JOHN DAVIS, ECONOVA INC.

Johanne Gélinas: You were here before Mr. Davis. We have your presentation so if you can just give us the highlights so that we can have a discussion together after. The floor is yours. Welcome.

John Davis: Thank you very much again. Good morning panel and participants and observers. My topic this morning will be what is not working well and what needs to change with current federal environmental assessment processes. My suggested theme for discussion will be regulatory capture and its clear impact on Canadian regulatory process.

Everything I speak of today represents real world ongoing issues that demand resolution, not just speculating on the issues. This is real stuff that's happening today. Ten minutes is a woefully inadequate timeframe. I'm going to move very, very quickly. You'll just have to bear with me.

COAC was formed in the fall of 2015 to provide a unified voice for the inshore fishing industry in an effort to have our concerns heard by federal and provincial regulators both at the CNSOPB, the Canada Nova Scotia Offshore Petroleum Board and CEAA, the Environmental Assessment Agency. COAC represents over 9,000 vessel owners, captains, crew members, fish plant owners and operators and workers who are wholly

dependent on the renewable resources provided by the ocean shelf multi species fishery.

Our intent today is to ensure this panel knows in no uncertain terms that current federal environmental assessment procedures are dysfunctional and that you understand the current regulatory process does not meet the stated mandate of regulators, nor does it meet the terms of the position papers and assurances provided to the Canadian people by this government during our last federal election.

Our critically important Scotian shelf spawning nursery and fishing grounds are being placed at unnecessary risk. We demand that our voices be heard. The following information will explain clearly why we hold this position. The CNSOPB offered nine exploratory oil and gas lease sites for auction on the Scotian shelf in 2015.

COAC protested four of these sites. Sites 1 and 3 share a boundary with the Georges Bank moratorium area. We were concerned about that. Sites 3 and 4 take in the southern edge of Browns Bank, the southeastern edge of the Baccaro Bank, a large area of the southern edge of LeHave Bank. All these sites sit within the massive tidal flow of the Bay of Fundy.

Sites 1 and 2 were leased to Statoil in Norway in 2015. Sites 3 and 4 did not receive bids in that auction. Sites 3 and 4 are not currently listed in the 2016 listing but they remain available for oil industry nomination at any time the oil industry wants to nominate those sites or any sites. COAC continues to call for the permanent removal of Sites 3 and 4 from all future CNSOPB auction activities.

The renewable resources on the Scotian shelf have sustained our European communities, our coastal communities for over three centuries and our MiqMaq communities for thousands of years. COAC has letters and resolutions of support for our positions from the impacted towns and municipalities on Nova Scotia's south shore and southwestern shore.

Starting at the western we have letters of support and from the municipality of Digby, from the town of Digby, from the municipality of Clare, the municipality of Yarmouth, the municipality of Argyle, the municipality of Darrington, the town of Clarks Harbour, the municipality of Shelburne, the town of Lunenburg and the municipality of Lunenburg. There simply could not be a more clear and unified expression of concern than that which I am placing before you today.

To date these concerns have not been addressed. Lease sites 3 and 4 and their locations – on the left you'll see a chart and the southwestern end of the Scotian shelf which positions areas 3 and 4 in relation to our fishing banks. Please note the dotted rectangle. It represents lobster area 40. It is a prime area of importance. On the right please note the tidal currents which would draw any oil spill from sites 3 and 4 directly over these critically important areas of our fishery.

160 billion tons of water flow into and out of the Bay of Fundy twice a day. This is greater than the total outflow of every river system on the planet. An oil spill here would simply be catastrophic. On the upper left you see lobster fishing area 40. You can see whited out LFA 40. This area is a critically important lobster spawning area. It's close to all lobster fishing. It is not only the only closed lobster spawning area on the Scotian shelf. It's the only closed lobster spawning area on the eastern seaboard of North America.

The site is critical. It is the basis of our most important fishery. On the right you see how wind and tides and currents distribute the lobster larva to our fishing grounds. In 2016 the value of lobster landings will be over \$600 million and the export value of that lobster will exceed \$1 billion. These landings represent the economic life blood of our coastal communities. In the lower left please note DFO's lobster density studies and the relationship they hold to areas 3 and 4.

These images make clear that oil spills in 3 and 4 would be beyond devastating. This slide shows the proximity of our fin fish fishing grounds to areas 3 and 4, on the right our hook and line sector and on the left our dragger sector. The issues here should be apparent. Again these are directly within these very important fishing grounds.

On the right of this slide you see the closed scallop nursery areas that sit within LFA 40, within that rectangle I described to you. This closed nursery area is critically important to the offshore scallop fleet. On the left of this slide it shows the seasonally closed areas for haddock spawning. Sites 3 and 4 sit directly on top of our closed areas for haddock spawn. It is an impossible situation. It's simply a disaster waiting to happen.

The stated mandate of the Canada Nova Scotia Offshore Petroleum Board is to protect the offshore environment during oil and gas exploration and extraction. The Board as it is currently constituted is not doing its job. A recent report titled Characteristics of Response Strategies published by the American Petroleum Institute, the National Oceanic and Atmospheric Administration, the US Coast Guard, the US Environmental Protection Agency states the following when evaluating the existing capacity to clean up an offshore oil spill.

This is everyone's capacity, in Canada, around the world. Boom effectiveness drops significantly because of entrainment or splash-overs as short period waves develop beyond three feet, 0.6 to 0.9 metres in height. Oil will be lost under a boom when the currents exceed about 0.75 or $\frac{3}{4}$ of a knot. These conditions do not exist in areas 3 and 4 as described by CNSOPB. The oil industry has no capacity to clean up an offshore oil spill on this ocean shelf.

This is only one example of written information coming from the American Petroleum Institute and others stating these same facts. We now have to stop. This was stunning information for us. We are Canadians. We assumed that our bureaucrats

and our governments are working in an effort for our best interests and they're looking after us and they're looking after the originating stakeholders on the Scotian shelf. It doesn't seem to be the case.

How does CNSOPB justify allowing oil exploration on our fishing grounds when there's no capacity to clean up an oil spill? The process starts with a powerful industry lobby and the passage of Bill C22. The bill was passed but not promulgated by the Harper government. Bill C22 creates a list of approved chemically dispersant agents which would be allowed for use in Canadian waters, specifically the dispersant corrects at 9500.

This is the agent that was used to such devastating effect in the Gulf of Mexico. Next the CNSOPB has to accept an impact statement from Shell Canada which completely ignores all of the research on the negative impacts of dispersants on commercial fish species accomplished since the 2010 deep water horizon blowout. Then the CNSOPB has to allow Shell Canada to pretend that spraying dispersants into the water column of the Scotian shelf is somehow equivalent to cleaning up an offshore oil spill.

Dispersants do not clean up anything. They simply break down the oil, put the oil in a more toxic state and sink it from sight into the water column. This is just the first step in the process however. In order for Shell Canada to have the right to pump dispersants into the water columns of the Scotian shelf they need our new Environment Minister to promulgate Bill C22.

In order for her to take that action she not only has to ignore all of the research from the Gulf of Mexico. She also has to ignore the highly regarded scientists of the Royal Society of Canada expert panel in their report titled The Behaviour of Environmental Impacts of Crude Oil Released into Aqueous Environments. Section 4, page 161 of the report contains the following quote.

Recommendation: research is needed to (1) assess the toxicity of dispersed oil to deep water corals, ground fish and invertebrate species that have high economic importance – lobster, crab and scallops. Research is needed to model the distribution of deep water plumes of dispersed oil in relation to areas of known fisheries productivities such as the fishing banks of Canada's east coast.

The fishing banks of Canada's east coast are on the Scotian shelf. Those are our fishing grounds and Canada's best scientists state clearly that much more research is needed before dispersant can be used safely in our waters. These facts notwithstanding Ms. McKenna promulgated Bill C22 this summer. COAC has had dialogue with scientists who are on that Royal Society panel. We've asked them what the research would be required before there was enough information to safely use dispersants.

I have that information. I will table it. It's a substantial amount of work that is not done that needs to be done. Now that Shell Canada and CNSOPB have Bill C22 promulgated all that was required was to move forward with the creation of a net environmental benefit analysis which is created by Shell Canada employees and contractors and which defines the terms under which dispersants may be used. This NEBA had to be assessed by DFO scientists. Let's look at what they had to say in their review of support for the Shelburne Basin exploration drilling project. Here are some quotes.

"There are some general deficiencies with the NEBA. Over the last five years a significant amount of scientific research has been undertaken on long term impacts of spills and the use of chemical dispersants on the marine environment in the Gulf of Mexico. The NEBA document would benefit by incorporating findings of these scientific studies directly."

This is the same issue we brought forward for the Shell EIS. Please take a look at the data that is available to you and better understand what the impacts of dispersants will be. No, it did not happen then and it did not happen in the NEBA.

"It would be useful if the NEBA document included a section on the socio-economic impacts of an oil spill, see Morris et al. 2013, the Macondo (ph) Prospect oil spill; the deep water horizon spill had significant impacts on the US economy in the northern Gulf of Mexico mainly fisheries and tourism. The impact this had on residents and local economies of the region is only now becoming fully understood."

How do you do a net environmental benefit analysis without making some effort to understand the socio-economic impacts of your actions? It is really mindboggling. Last and this is critically important, this is in their conclusion. "It is again noted that DFO science reviewers only had 7 days to review and provide comments. As such the time limitations constrained the depth, nature and level of DFO's science review of the NEBA document."

I have the document here. I'll be glad to table it. If you're not prone to fits of depression you should read it. Unsurprisingly the Shell Canada NEBA has been accepted and is now in place. The Clean Ocean Action Committee does not believe that rigorous science is reflected in the work of CNSOPB. We believe that CNSOPB has been captured by the oil and gas industry and that only a major overhaul of the total regulatory process will begin to set things right.

The Scotian shelf is not some black hole in the ocean off Calcutta. These are the richest multi species fishing grounds in North America. We the impacted coastal communities are wholly dependent on the renewable resources of the Scotian shelf and who carry 100% of the risk if a spill occurs, demand real and functional regulatory oversight for the oil and gas industry that is carried out with a high level of scientific

integrity and which reflects the value of the renewable resources on the Scotian shelf that are being put at risk.

We will accept nothing else. I thank you again for your time and effort and energy on these issues. I'm more than sure that I'm disruptive but I can tell you that it's wonderful to hear the comments made by the people who have come forward. I'm glad I was here to hear them but there are real structural issues that have to be addressed. I hope that if this doesn't fully fit your mandate that you can widen your mandate to begin to look into some of these things.

Johanne Gélinas: Thank you very much Mr. Davis. Who would like to start? Before we start, any documents you want to table, feel free to leave it to our colleague and it will be put on our website. Thank you very much.

John Davis: I'll table a couple of documents. This is the DFO review where I was taking those quotes. It's stunning reading. I hope you have an opportunity. Here are some of the letters from the municipal units and town units along the south shore. Our government that is now in place ran with position papers that said we're going to make environmental review process accessible. We're going to make it understandable and we're going to make it – put it in a position where people have some trust in it. That has not happened. I hope that you're working to find ways to make that happen.

They also said governments pass regulations, communities give permission. I want you to know that I represent a magnanimous and wonderful group of people who understand in Nova Scotia the horrible issues we have in terms of our fiscal situation.

Johanne Gélinas: (Off microphone)

John Davis: Okay, but there are the letters. I also want to give you – I stated to you that there are conditions that do not exist on the Scotian shelf. Here is a document. This is taken from a CNSOPB strategic environmental assessment of the western Scotian shelf. In it is information about wave heights. There are no wave heights that fall within the categories defined by the papers I quoted in this document. I'll put those three documents forward and I'll be glad to provide them electronically.

Johanne Gélinas: Thank you very much.

Rod Northey: Thank you for describing what the three are. The other three I see in front of you I need a similar explanation. You are taped and so it might be helpful if you could say what those are for our purposes.

John Davis: There is a copy of an e-mail between me and Dr. Peter Hodson who is a member of the Royal Commission. I don't think I'll send you the whole e-mail but I will electronically give you his explanations about what the research that would be required looks like to be able to safely use dispersants on the Scotian shelf.

This guy is a remarkable Canadian scientist, highly regarded in his field. I will get that information to you electronically. The Scotian shelf is the last place to use as a lab rat for Shell and other oil companies to test their presumptions about dispersant use. It's this document and the work that Peter Hodson and the Royal Commission did and is prepared to do that should be the information used to make decisions about dispersant use around our fishing grounds.

Rod Northey: I want to try and focus us. I don't mean to diminish what you're saying but our job is to look forward. You're trying to give us very passionately a way forward.

John Davis: There's a critical issue here.

Rod Northey: Okay. What I'm looking for and you may not have it at your disposal right now but if you want to reflect on what is it very specifically that you would like us to change to get the rigour or science or whatever issues you feel are not addressed, what is it you think we should do? We're not to be reviewing the existing state other than to try to understand it.

What we are supposed to do is to figure out a way forward that's better. We are consulting across the country to do that. The things you're talking about we are looking at regional assessments. You heard other speakers this morning speak to the value of that.

Your insight into what's going on or not going on at that level would be very welcome. That's my real question to you. Is there a way for us in our dialogue today to move past where you are right now, which is problematic in your terms in the extreme. Where would you like us to go, if you could summarize that?

John Davis: I think I can do it reasonably quickly. Number one, meet the mandates that were put forward in the federal election. They're really straightforward and if you read them and if they could be put in place, the federal Liberal platform said we will make environmental assessments credible again. Good, let's work toward that.

In my final sentence we need a high level of scientific integrity. We need decision making that when you are in these discussions the only reason you're in them is because there are resources that want to move forward and there are resources that feel threatened. The science and the decision making has to reflect the value of those

resources that are going to be put at risk. That's not reflected in the work of CNSOPB or CEAA right now.

Rod Northey: Let me give you a specific question. We've heard something about the value of a regional or a strategic assessment. You are citing one of them there. We are hearing those as perhaps a way forward away from cumulative effects being left to proponents in project specific environmental assessments. One question to you is it doesn't sound like the regional assessments that have been done satisfy you. Do you think there is promise in regional assessment or if not what is the kind of process you would like us to think about?

John Davis: If you go back to my presentation, here's how this works. We spotted the 2015 CNSOPB lease sites and a red flag went up within the fishing industry. In the process of trying to figure out how this could have happened we did our research and we found these quotes I read you about what the capabilities of the oil industry are in terms of cleaning up an offshore oil spill.

It was at that point we said what is Shell doing out there. There's a whole process snuck by our industry. Do we share some blame in that? Absolutely but the processes that put Shell out there were not public enough. They were not – I'd love for you to come down to the wharf in Clark's Harbour and meet the people whose lives are impacted by these decisions and understand how hard they work and who they are and what wonderful Canadians they are.

But they are not reading the CNSOPB website. It's not happening. We need to find a way to bridge that gap because these people deserve a level of recognition that they are not getting in the process. I would suggest there are other communities who are impacted, perhaps indigenous communities who are now much more on the ball than in the past but other communities who are also left out of a process which doesn't impact them. They're really busy making the dollars to keep food on the table and their houses and families clothed. There needs to be a better process for community involvement in all of these circumstances.

Doug Horswill: Two questions that relate to each other. The first is tell us how the Canadian Nova Scotia Offshore Board is constituted and governed and the process that got Shell out there that you just referred to, what was that process? Was there a full EA done before licenses and leases were issued?

John Davis: There was – I don't know whether it was a full process. I know right now and I will table a letter to Ms. McKenna. Right now British Petroleum is working through its EIS process. We thought it would be CNSOPB dealing with that but it's CEAA. There are no public hearings scheduled, none. This is stunning to us. Are we behind the eight ball? Were we there at the beginning to scream and shout? No but did I write Catherine McKenna back in June saying please this is BP.

I quote their mandate. This letter is now tabled. But BP in their last exploratory well created mayhem. BP in the Gulf of Mexico – here's an interesting point that's really uncomfortable. Dispersant laced oil disrupts the embryonic growth of tuna fish. There's 10,000 scientific documents that will back this. It destroys the heart. The heart mal forms.

All of our tuna that we catch here off the eastern shore spawns in the Gulf of Mexico. I asked Pat Gray (ph) who is the head of LFA 33 and knows all the people who are tuna fishing, this is over the last two weeks, where are the young tuna. Are they there? No, they're not there. The last 3, 4, 5 those years classes, particularly yellow fin tuna aren't coming to our waters. Where are they?

There's a possibility that BP already owes us compensation from the devastation they've already wreaked on the tuna stocks in the Gulf of Mexico. Those are our fish. They just haven't got here yet. Those kinds of issues require public input. They require the opportunity in a regulatory setting with the regulators and the proponents and the impacted people together in a room to talk about these issues.

BP paid billions of dollars in fines for lying to the US Congress. We want to look them in the face. If you read the band aid statements, DEO purports to provide high quality environmental assessments that contribute to inform decision making in the support of sustainable development.

They want strategic environmental assessments that serve to strengthen accountability and provide greater public confidence that federal government decisions are being made in full awareness of the potential environmental impacts. No, they're not. It's not working. Do the communities share some blame in this process? Yes. We're too busy and we have the Canadian point of view that our governments and our bureaucrats are looking after our best interests. We really want it to be true but it doesn't seem to be the case.

Johanne Gélina: I thank you very much for having brought that information to us. We will look more into detail. Just a quick reminder for you but as we are doing this exercise on EA processes there are also other reviews taking place, one being the Fisheries Act which fits pretty well with your concerns. Would you mind if we were to forward everything you have given us today also to the parliamentary committee who will look at the Fisheries Act?

John Davis: I'll correspond with some of your staff people and get contact info.

Johanne Gélina: Joyce will give you all the information you need and she's the one to whom you should provide all this information. Thank you very much.

John Davis: Thank you for subjugating yourselves to this process. I'm sure it isn't easy. Thank you again.

MELISSA OLDREIVE, FUNDY FORCE

Johanne Gélinas: The next presentation will be by Melissa Oldreive. I hope I pronounce it properly. Welcome. You are here this morning I think. You have 15 minutes. If you want to take your full 15 minutes to present too bad, we won't be able to ask questions. If you want to focus on the key messages that you would like to convey to us we'll have a chance to exchange a bit more. If I may ask that you say a few words about your organization. Thank you.

Melissa Oldreive: Today's presentation will give you a bit of an overview of who we are and what we do. To start my name is Melissa Oldreive. I am the director of regulatory and environmental programs at the Fundy Ocean Research Centre for Energy otherwise known as FORCE. I'm here to explain a bit about what we do and how we support evidence based decision making for the province of Nova Scotia and the government of Canada relating to instream tidal energy development, environmental assessment processes and regulations.

FORCE is a non-profit research centre established by government in 2009 to serve as a demonstrate site for a new technology referred to as instream tidal turbines. These devices are placed in the natural flow of the water much like a wind turbine but under the water. We're exploring this new technology because of our collective motivation to move away from fossil based electricity sources and to deal with the impacts associated with climate change.

This is especially true and of relevance in Nova Scotia as we look to find other sources of electricity for our homes and businesses given our heavy reliance on coal and fossil fuels. We also have ambitious greenhouse gas reduction and renewable energy production targets here in Nova Scotia. Unlike other sources of renewable energy, tidal energy is predictable.

We know when the tide is going to come in today, tomorrow and 100 years from now. From an electricity system planning it represents a very exciting opportunity for renewable energy integration. Nova Scotia is also home to the first marine renewable energy legislation in Canada and North America. If we are to explore the potential of Bay of Fundy and tidal energy throughout Canada rules will be important not only for marine life, for the public, for industry and also for the safety of those who are working on the ocean.

There are many limitations on the amount of electricity that's feasible and responsible to extract from our oceans from this renewable energy resource. It also must take into consideration other users of the marine environment but what's feasible is worth exploring and it's not only here in Nova Scotia but elsewhere across the country. Canada has approximately 40,000 megawatts of marine renewable energy, roughly one third of the nation's total capacity for electricity needs.

We have many high flow sites as indicated on this map in front of you particularly in Nunavut, northern Quebec, even Labrador as well as coastal communities along British Columbia. A number of these communities as well are dependent on imported diesel or other intermittent renewables, hydro or small regional grids. This represents a potential opportunity for those communities.

As I mentioned FORCE is a host. We have a piece of sub-sea land which is indicated in the darker piece of blue within the Minas Passage of the Bay of Fundy. That's our test site. Within it we host four different companies to try and test and demonstrate their instream tidal technologies. In the near term we are expecting only two turbines to be deployed at our test site. That's a picture of one of them. Relative to the passage these turbines and our site are relatively small, less than a tenth of 1% of the cross sectional surface.

Due to this scale any effects are expected to be statistically insignificant but still worthwhile investigating. We are not alone in exploring instream tidal energy here in Canada. The United Kingdom has looked for several years, France is involved, the United States and other jurisdictions. To date international studies have shown not a harmful instance between marine life and in instream tidal turbine.

The world's longest instream turbine is a 1.2 megawatt unit in Northern Ireland. It has had no significant impact on marine life. Further findings show that fish and mammals generally avoid turbines and zoo plankton and other larvae can pass through remaining unharmed. We recognize that international experience is not sufficient and we're going to have to do increasing research at the Bay of Fundy, given its unique characteristics.

Since 2009 we at FORCE have been conducting environmental effects monitoring to better understand the natural environment of the passage and the potential effects turbines will have on fish, sea birds, marine mammals, marine noise, lobster, benthic habitat, physical oceanography and many other factors. All of the research we have supported are public on our website at fundyforce.ca.

Our most recent monitoring plan was developed in consultation with SOR Consulting and strengthened by reviews by national and international experts, scientists, federal and provincial regulators including Fisheries and Oceans Canada, our environmental monitoring advisory committee as well and that includes representatives from scientific and academic communities, the MiqMaq of Nova Scotia and fishing representatives.

That program is designed to monitor the environmental effects of operating turbines. We anticipate those two turbines going in, in the near future. We'll be focusing on lobster, fish, mammals, noise and sea birds as mentioned and the premise of this program is to be adaptive, to learn from results as well as inputs from regulators as well as our monitoring committee.

This builds on over 90 studies to date and roughly \$15 million of investment in research and monitoring by both ourselves and our partners, academic and research institutions. We'll continue to post online these results as they become available. In summary, if tidal energy is to grow to a larger scale we believe development must happen responsibly. This includes getting solid resource and environmental data which FORCE is able to provide before making decisions as well as continuing to communicate those to the public.

From our perspective it's clear that to support credible regulatory policy environmental assessment decisions by both our provincial and federal governments we need solid effects monitoring data. As you've seen Nova Scotia and Canada has an immense resource available to us to reduce our fossil fuels and help increase our ability to generate electricity in an increasingly electrified system but we have to be transparent.

We have to make sure the information is out there and that it is able to answer the questions to inform regulatory decision making. Thank you and if you have questions I'd be glad to answer.

Johanne Gélinas: Does your group FORCE do other kinds of contributions in terms of scientific analysis like the previous presenter, Mr. Davis was talking about a major concern in this province. Would you be involved in that, in doing some kind of assessment?

Melissa Oldreive: FORCE we facilitate research. We have in our current environmental plan we have that developed for regulators with consultants as experts. Then we hire out, we facilitate that research, hire out groups to do that work but the commitment when doing those research studies is that we put it online. We make it available to regulators to have those discussions. We do not do that research ourselves. We post it online and make it available. In terms of our role, that's what it is, to enable that decision making process.

Rod Northey: On the CEAA project list right now it's 50 megawatts or greater. If we go back to one of your slides you've got a great circle diagram of potential. What's your position on whether 50 is an appropriate threshold? Do you have a position on that?

Melissa Oldreive: FORCE doesn't have a position on the threshold. I would say we would encourage in making a decision about thresholds that our research

and our data be considered. We have that available to you. We wouldn't make a recommendation either way but we'd gladly have that discussion about what we know to date and would encourage that to continually happen as policies and regulations are evaluated.

Rod Northey: One of the other things that becomes apparent looking at that slide, as you heard our previous speakers we've been talking about regional or strategic EA where you have multiple projects. There are clusters in the north and even on the west coast. Have you given any consideration or participated in discussions about whether a regional level assessment or a strategic EA has or should be done for any of this kind of power?

Melissa Oldreive: In Nova Scotia there's been two strategic environmental assessments run through the province within the Bay of Fundy, one in 2008 and updated in 2013 to reflect the evolving nature of the industry. That's proven very helpful for us but in terms of a federal level screening from the regional assessments that would provide absolute value.

Rod Northey: I appreciate because our first speaker was talking about that. I'm trying to get this level between a policy EA which Nova Scotia might have done and a regional assessment where there are multiple projects contemplated. The question where they might intersect is you might have thresholds about density. What's the density threshold you can apply? Is there any work to point us to on that kind of understanding of how multiple projects or what potential needs?

Your successive slide in your Minas Basin cross-section presumes one turbine but I'm more interested in understanding what's the density that's proposed or contemplated as opposed to the research density.

Melissa Oldreive: Our site is about 1.5 km by 1 km and we have four companies present with 2 to 3 turbines in each eventually when they are deployed. Part of the FORCE demonstration will be to see if that's a feasible spacing, if that's a reasonable density and our hope is we can learn from that, understanding if there's additional spacing from an engineering or environmental perspective that would be needed. We'd hope that we could learn from that to inform those questions of density of projects in a single bay, inlet, area would be contemplated.

Rod Northey: With three turbines, what are each of those turbines providing by way of generation capacity?

Melissa Oldreive: This one there are 2 megawatts per turbine but other technologies that we have present at our site or will have deployed range from a combination of 1, 1.5 megawatts up to 2.5 dependent on the design. We do have pictures available. The technologies are very diverse at this point because it's an evolving demonstration.

Renee Pelletier: Just picking up on a point you made about facilitating research. I appreciate you don't conduct the research yourself. Could you still say a bit about what role indigenous traditional knowledge plays in the research if at all?

Melissa Oldreive: We do have our environmental monitoring committee and we do have a representative of the MiqMaq conservation group in hopes to bring traditional knowledge perspectives to the table especially as we propose research design or as results are included. We continue to engage with the MiqMaq rights initiative here and we're reaching out to individual communities as well to see what their concerns are, what their needs and bring them into research projects when we're able.

We have completed traditional ecological knowledge studies within the Bay, both the upper Bay of Fundy where we are as well as in the outer Bay as well. It's a continual process.

Doug Horswill: You mentioned this evolving technology. In 2008 and 2013, the two SEA's how should we consider types of technologies and projects like yours which are evolving and probably more rapidly over time but you do an EA that's fixed at the moment. You have the data and information available. How should the EA considerations evolve to keep up with the technology to make sure that in fact effects expected are indeed the effects that are emerging as the technology changes?

Melissa Oldreive: One thing FORCE would advocate for is for government to be present in those discussions as we collect data and understand and not just environmental data but the engineering and technical pieces behind it. We would advocate for having a presence and active involvement in the work we do and being present at that table consistently and bringing that information back or in review processes such as this or program evaluations.

Doug Horswill: Do you have mechanisms to keep the public and interested parties beyond governments up to date with that evolution? Can you comment on coordination between provincial authorities and federal in relation to your business? Are improvements needed there or is that working?

Melissa Oldreive: We strive to be as transparent as we can. All of our results go online. We do keep groups up to date through social media channels. We also have a fisheries liaison group where we continue to advise of marine activity and what we're doing on the water and the results. We're trying and we strive to make sure things are as open as possible. Our results are online and if anybody wanted to learn more we'd gladly facilitate that.

Within Nova Scotia the Nova Scotia Department of Energy has a one window committee for tidal energy projects and policies where it coordinates federal provincial regulators with an interest or authority for any marine renewable energy, not just tidal

energy but wave if it came up, offshore wind. That group proves very helpful to coordinate this. Any commitment to coordination and a more formalized approach would provide some more certainty for all stakeholders involved.

Rod Northey: You're not yet at a project level threshold. You're below the project level for the federal. Have you been doing any provincial level EA's even at the pilot level? Are there any environmental assessments on this topic out there?

Melissa Oldreive: This project FORCE underwent a joint process in 2008 and 2009. The responsibility and management for that environmental assessment is with the Nova Scotia Department of Environment. We received our approval in 2009. We have conditions under that that we have to meet continually which is again online.

Johanne Gélinas: Thank you very much for your presentation. Good luck with your projects. We'll take a break for lunch and reconvene at 1:00. Thank you very much.

ELISA OBERMANN, MARINE RENEWABLES CANADA

Renée Pelletier: The next presentation this afternoon is Elisa Obermann from Marine Renewables Canada. Please go ahead.

Elisa Obermann: Thanks very much for the opportunity to present to your panel today. My name is Elisa Obermann. I'm the executive director of Marine Renewables Canada and we're the national industry association covering wave, tidal and river current energy. Our focus essentially is to support the advancement of the sector.

As marine renewable energy is a new sector in Canada how it's treated by the EA process is very important to its growth and sustainability. I'd like to take time today to describe the opportunity marine renewable energy presents, the state of the sector and current challenges in context of environmental assessment and what processes have been established that are in alignment with your mandate, particularly around engagement and consultation.

I'm going to start by talking a bit about what marine renewable energy technology is and what the basis for this discussion is. There are two primary technologies that can harness tidal energy resources: tidal current or instream tidal extracts the kinetic energy

from the ebb and flow of tides. Devices can be developed incrementally and therefore it is easier to monitor and mitigate potential environmental impacts.

The other type of tidal energy technology is tidal range which extracts energy from tides using the actual rise and fall of the tide. Tidal range technologies use some type of holding basin such as a dam or a barrage or a lagoon structure so for example the Annapolis tidal station in Nova Scotia is an example of tidal range technology.

Right now in the sector development interest is mainly on instream tidal energy development and those technologies. That's because they can be deployed incrementally allowing time to monitor for environmental impacts if any. I also will mention we cover wave and river technologies but they are not as far along in Canada in terms of development at this stage.

The next thing I wanted to talk about was the benefits of marine renewable energy. Obviously it's a new industry so we haven't seen a lot of those benefits yet because there are very few if any real commercial projects in development now. The last speaker touched on these a bit as well, we see it as a huge clean renewable energy opportunity and it can contribute to reduction of greenhouse gases and greater production and use of marine renewable energy in Canada can help government meet its climate change action goals as well as goals for a low carbon economy.

The second would be economic opportunities. The development of marine renewable energy presents some significant potential for industrial growth or industrial and economic growth and as an emerging industry globally and not just in Canada there is a lack of a developed supply chain. This is a major opportunity for Canada to establish a supply chain that can export innovations, technologies and expertise to an estimated 900 billion global market.

A report commissioned by the Offshore Energy Research Association estimates that over the next 25 years tidal energy development in Nova Scotia alone could result in \$1.7 billion GDP, 22,000 jobs and \$815 million in labour income. Obviously the resource potential is much bigger than just what we have in Nova Scotia.

The third benefit of marine renewables is energy security and diversity. There's wave, tidal and river current energy resources across the country. The range of project application options range from larger scale or utility scale development to community scale. There's a lot of opportunity around northern and remote communities to offset diesel use by using marine renewable energy.

Marine renewable energy technologies are still relatively immature and overall the technologies are at early stages compared to other renewable energy and conventional energy resources. There have been several deployments of single devices internationally and a few in Canada but industry has yet to develop a grid connected project with multiple devices.

The UK is recognized as the world leader in tidal and wave energy development with hundreds of megawatts permitted and around 20 device deployments. Needless to say this is a very new emerging industry. In Canada and globally I'd say tidal energy is recognized as being the closest to commercial viability with device designs converging and more enabling innovations occurring that help to bring down project costs.

In Nova Scotia that's where tidal energy is emerging and recognized as leading the way in Canada for tidal energy development. The Fundy Ocean Research for Energy hosts five instream tidal projects and about 22 megawatts is approved under a feed-in tariff. I want to point out there are no turbines deployed to date so it's still in the very early stages.

In Nova Scotia there is also the Fundy Tidal Inc. which leads three community scale projects around 3 megawatts total and again that one is in the planning stage. In British Columbia in terms of tidal energy development there's a few small scale projects but none in the actual operation phase. We do have some activity with wave and river current energy but we're looking at very early times with the testing of prototype devices and essentially we're looking at some groups developing the foundational research needed to move forward with these projects.

Currently most of the industry focus in Canada is around tidal energy in the Bay of Fundy. I'm going to focus on the challenges for tidal energy development from an environmental and EA perspective. Marine renewable energy technologies are new with few deployments or operational experience so this can create some challenges.

Working in high flow marine environments can be challenging. While there are sensing tools for data gathering and monitoring in marine environment there are limited tools that can work in high flow environments and therefore innovation is required to support enabling technology development.

Second, as most marine renewable energy devices have not been operating for long periods of time there are uncertainties regarding how device operation and the presence of multiple devices will impact the environment. This could create potential challenges under the EA process due to limited experience. However this can be addressed by getting more experience through device deployments which is very important.

Given that devices can be deployed incrementally, industry and government can gain knowledge about interactions through a slow staged approach that can mitigate the potential risks. Lastly the ocean is also a large environment and concerns about large impacts on the environment are likely difficult to detect at this early stage until we get more project experience through growing projects and deploying more than one turbine at a time.

The tidal energy projects in the Bay of Fundy have gone through a joint EA process already which was mentioned in the last presentation. In addition to that there have been a number of policies and initiatives that have supported responsible development of the resource. I want to bring some of these to your attention today to highlight the framework that Nova Scotia has in place as a model for tidal energy development that can complement the federal EA process, your mandate for engagement and consultation and ensure responsible development of a new renewable energy resource.

First the approach to development has been focused on adaptive management. That principle has been applied through incremental project development and monitoring. This allows industry and regulators to gather knowledge about interactions with the environment while projects are developed cautiously and slowly. There has also been a lot of work done within Canada and Nova Scotia as well as globally on what the environmental impacts of tidal energy could be.

A significant amount of research and data was collected for the first joint federal provincial EA at FORCE. This process was extremely effective and efficient in avoiding duplication and helping build a collective body of knowledge about tidal energy among federal and provincial regulators. There's also been ongoing research, in Nova Scotia alone about 93 studies on tidal energy development both in the environmental and technical perspective and those types of challenges.

We have been working closely with international industry to understand what some of the results have been on deployments in other jurisdictions and what the interactions have been with the environment. Both FORCE and developers working on tidal energy in Nova Scotia have developed environmental monitoring plans that have been reviewed by provincial and federal governments.

There's also a number of tools and a regulatory framework that focus on engagement and environmental issues. I'm going to touch on these briefly. I think Melissa Oldreive mentioned a few of them in her presentation. One is that Nova Scotia requires a strategic environmental assessment before tidal energy projects move forward and there have been four done to date which has been extremely helpful for understanding what stakeholder concerns are and any potential environmental issues that need to be addressed.

It's very important in the early planning stage. There has also been early engagement with First Nations and two MiqMaq ecological knowledge studies have been done upon recommendation of the SEA. Again that shows how important the SEA's are in the early stage. Nova Scotia has established a marine renewable energy act and this provides a basis for the permitting and a pathway for projects to move forward in a predictable way but also a very responsible way.

Nova Scotia has established a one window committee that includes federal and provincial regulators. They see what projects are proposed early on and detect any

issues there might be from a regulatory perspective. DFO and Acadia University established a pathway of effects framework which identifies risks, potential risks in tidal energy development which has been a good tool for both regulators and industry in understanding how to mitigate those risks.

The Nova Scotia government and Marine Renewables Canada have also established a statement of best practices which allows for the safe responsible development and guidelines on how to monitor that and plan accordingly through the life cycle of a project. Finally there's also been quite a bit of work to engage communities and have them understand what the potential benefits are of tidal energy development but also how they can get involved and how it can affect them.

Acadia Energy Tidal Institute has established a community toolkit which has been a helpful tool for communities. In terms of the EA process and how the industry will be moving forward, instream tidal energy development is an activity under CEAA's regulation designating physical activities and is listed at 50 megawatts on the project list.

This provides predictability for industry and the current regulations also allow for incremental deployment which is important for operational monitoring and data gathering and also allows for adaptive management approach. The regulations also allow for a scale of development that is critical for industry to gather data and information on potential impacts.

In conclusion, tidal energy and marine renewable energy is an emerging technology requiring an adaptive management approach, safe responsible development of tidal energy has been supported through the federal EA process combined with the provincial or Nova Scotia policies and legislation. In terms of recommended actions, I will note we are going to build on these but with a longer submission that we will submit at a later date.

I wanted to list these today for you to review. The first is to maintain the EA process under CEAA to support experience and data gathering for first tidal energy projects. Ensure efficient and effective EA's through joint EA process between federal and provincial governments. Encourage and enhance DFO engagement in science and monitoring.

Support responsible adaptive and staged growth through clean technology funding for things like innovations in sensor technologies and monitoring technologies which will be very important to ensure that we are gathering the right data about environmental interactions with tidal energy and marine renewable energy devices. Thank you. I have time for questions if you have any.

Johanne Gélina:

Thank you very much. Who wants to go first?

Rod Northey: A few questions. One is that our mandate talks about trying to get proponents to use the best technology. One of the things I'm interested in, to require project (technical difficulty) to choose the best technologies available to reduce environmental aspects. One of the things you're raising which I think we need some input from you on is you've got an industry association that's probably a mixture of the people that could build and the technologies that want to be used.

How does the EA process work with those two different layers? If we were to focus on the proponent, how do we get the best technology? You're in kind of joint ventures I suspect. You can go away and think about this because what I'd like to understand better is in a field where there are many emerging technologies and potentially many different proponents, how is it that we're going to achieve or respond to the Minister with using the best technology because I will say out of what we've heard so far today and it's been quite interesting on the strategic policy level and the regional assessment level, we haven't heard anything about the technology point, pro and con other than informally. Do you have any thoughts on that?

Elisa Obermann: I'm going to try to provide a little bit of insight but I will say it's something I will definitely take back to think about a bit more. It probably deserves more thought than I can put into it at this moment. I will start by saying the development that's happening at FORCE where they are using several different technologies I think is very critical to how the industry is going to proceed.

It will give us the opportunity to understand what technologies work best in that environment. I didn't touch much on what's happening in terms of river current energy where there's also a similar centre in Manitoba that's doing the same thing where they're looking at several different types of technologies and the interactions with the marine environment.

It's important for these kinds of projects to move forward at this stage because it will provide the learning necessary to determine at a later point when industry – when these projects are going more towards an industrial or commercial project, what will work best and what's safest for the environment.

Rod Northey: The other question is when you were talking about incremental EA's, one of the things we've been hearing in other places is trying to get a feedback loop between an EA that's completed and a future EA that is about to start. It strikes me that's exactly what you're talking about.

You're trying to get your monitoring studies to feed into the future EA. I'm wondering if you have any suggestions for us or if you could add that to your future submission because it's not something that appears to be done very rigorously now. With the way CEAA works right now is a follow up program is regarding the project itself and not necessarily what its advantages or use is to a future project somewhere similar.

We are interested to hear more. Is that an accurate portrayal first of all of what you're trying to do?

Elisa Obermann: I think it's a very good point. One thing I will say is that these projects because they are in the early stages and technologies are new, project costs are higher than they would be for other kinds of energy projects at this point. As fluid as an environmental assessment process can be the better so that you can build that body of knowledge that will feed into future EA processes.

That's one thing that our industry has been looking at is how exactly do we do that and it's obviously challenging at this stage because we don't have that body of knowledge which is why incremental deployment and scaling up of projects is very important to feed into future EA processes. I will note this is something I will provide more detail on in our submission.

Johanne Gélinas: I'd like to pursue that last question a bit further. I'm not sure if I understand correctly. All these bits and pieces of research and monitoring that you're doing are not done as we speak to do some kind of a high level environmental impact assessment of the marine renewable energy. Am I right saying that? This is exactly what you are doing as we speak.

Elisa Obermann: You're asking in terms of this study that's being done?

Johanne Gélinas: I'm talking about all kinds of studies beginning of EA's. I'm just asking if you are in the process of doing a more high level EA for your sector generally speaking or we're not there yet.

Elisa Obermann: I wouldn't say we're there yet because first I'll say FORCE which is where the activity is most prevalent the first EA that was done was for 5 megawatts. Nothing has been deployed to date. There needs to be more work in realizing that potential. Once we see devices deployed we'll have a better idea of what kind of ground work needs to be laid next to do that broader strategic environmental assessment piece.

Johanne Gélinas: Have you started to discuss that within your people to do one kind of high level impact assessment that will reduce the detail impact assessment for individual projects? Is that something you contemplate?

Elisa Obermann: I can't say that my group specifically is looking at that because typically we don't lead as an industry association we haven't been leading that kind of process. Something that would feed into that that is currently underway is a resource assessment looking at other areas of the Bay of Fundy for future development.

So there can be planning in terms of what's viable, not just from an energy resource perspective but also from other things you look at in terms of social, economic and environmental impacts. Strictly speaking for what you're talking about I would say no but there is work that would feed into that's underway right now.

Rod Northey: You spoke of CEAA being supportive on the incrementalism. I want to understand what you meant by that.

Elisa Obermann: Under the current regulations for CEAA instream tidal energy is listed at 50 megawatts. We view that as basically being supportive of that incremental approach where one device can be deployed and then multiple devices within that.

Rod Northey: That are all above that threshold though.

Elisa Obermann: Yes, and within it too. Before the 50 megawatts, the 49 megawatts, that would help and there'd be a lot of learning and data gathering and research done up to that stage so that industry would have a better understanding of what the environmental impacts could be post 50 megawatts essentially.

Rod Northey: Related to that, if you were here earlier today, I was asking the relationship between a policy EA very broadly and a project EA, this middle level that might be called a regional EA and given the Bay of Fundy resource, has your industry and in fact the clusters when we saw the earlier presentation of the resource and where it is across Canada, have you any thoughts?

Again if you haven't yet got there, if your industry has any thoughts because one of the things we've been hearing is if one were to do as the chair just said a broad regional assessment then one would expect that the specific projects within that region that fit within that framework would go through more easily. That one would hope would be the advantage of doing that. I would be very interested whether your membership has an interest in seeing something like that occur.

Elisa Obermann: I just have a short comment for that because I think that would be something you would discuss with our membership more. My first thought is that anything that can provide predictability for industry and allow for early planning, so if we have an understanding what other users might or other types of projects in an area could occur, it would be very helpful for any marine renewable energy proponent in terms of proposing their project and being able to move forward with future planning. That's again another take away that we will do some more thinking on.

Renee Pelletier: You noted there have been two MiqMaq ecological knowledge studies done. I wonder if you could say a bit about how specifically those studies factor into your work, how you consider them.

Elisa Obermann: I want to say the MiqMaq ecological studies took place in 2009 and 2012 or 2013 so it's been a few years. I would say from an industry perspective in terms of projects moving ahead in the Bay of Fundy they have been very important for understanding what potential impacts it could have on the MiqMaq and how their traditional industries also could be affected, for example fisheries, horticulture, heritage. I shouldn't specifically speak to tidal developers because it probably factored much more into their specific project plans and also how they consult or engage the MiqMaq.

Renee Pelletier: That sounds more like you're talking about a traditional use study. I obviously haven't looked at the MiqMaq ecological study but just by its title I assumed it was more about traditional knowledge as opposed to use and potential impacts on rights. Am I misunderstanding the two studies, the nature of them?

Elisa Obermann: I don't think you are. I recently have looked at an executive summary from one of them and it did mention industrial uses as well. It may be something that is – I can't explain the methodology that went into the studies exactly.

Rod Northey: Your technology is evolving very quickly. EA is a point in time snapshot. Do you feel that the process is sufficient and flexible enough to meet the evolution of your technology? Are things you would suggest we change to revise, update it or otherwise to accomplish that?

Elisa Obermann: I would say I think the EA approvals play a big part in that, especially for environmental monitoring requirements and those kinds of issues. There doesn't need to be – I mentioned the adaptive management principle and that's something that's really important to this industry in terms of how its managed and how the EA process is built around that.

That's something I would have to give a bit more thought into. I think to date the speed of EA process or when it's done at a point in time hasn't been an issue and that's also because our industry is still looking at some of the first deployments. As it moves forward and technologies are proven and industry is looking at moving forward I think then we have to look back at this and determine what makes sense.

Rod Northey: The DFO Acadia document on pathways of effects, is that on your website? If it's not could you make it available to our secretariat?

Elisa Obermann: It is not on our website but I will definitely send it to you.

Johanne Gélinas: Ms. Obermann, thank you very much for your presentation and we will be looking forward to have those documents. Thank you. As the technician will fix our screen I will invite Ms. Gorman to join us please.

Please Ms. Gorman have a seat and we can start. We don't need the screen ourselves. Nice to have but we can do without. The floor is yours. You have 15 minutes.

MARY GORMAN, SAVE OUR SEAS AND SHORES COALITION

Mary Gorman: I do want off the top to acknowledge the people who organized it because in this day of push buttons and never reaching a live human being it was very refreshing to be treated with respect and efficiency and consideration.

I'm here today on behalf of the Gulf Nova Scotia – can everybody hear me? Let me know if you can't.

Johanne Gélinas: Did you come with your fan club?

Mary Gorman: I don't have a fan club. I'm here today on behalf of the Gulf Nova Scotia Herring Federation who I want you to know are the first inshore multispecies herring fishing organization in the world to achieve sustainable certification.

They were the very first in the world and I only mention that because they have worked so hard and the inshore multispecies fishermen in the southern Gulf of St. Lawrence get every little respect from our governments but they are arguably the most progressive fishermen on this earth in terms of conserving their own stocks.

I say that because of the juxtaposition against what I'm about to get into. I'm also here on behalf of Save our Seas and Shores Coalition. We are a coalition of fishermen, First Nations, coastal land owners, NGO's and environmentalists formed in the late 90's to protect the Gulf of St. Lawrence from offshore oil and gas development.

The herring federation as I told you represents over 400 multispecies inshore licensed fish harvesters in Gulf of Nova Scotia. That's just the captains. You throw the crew into it you're looking at over 1,200 jobs with this one little organization. We have been volunteering to protect this vulnerable marine region for 20 years due to its high sensitivity and because it provides approximately 50,000 sustainable jobs and multibillion dollar fishery and tourism industries for five of the ten provinces in Canada.

Six and a half times smaller than the Gulf of Mexico, the Gulf of St. Lawrence is a fragile landlocked – semi-landlocked I should say – semi-enclosed body of water that completely exchanges its waters with the Atlantic only once a year. That's a crucial point because any oil spill is going to last for a year.

In 1973 Dr. Lauffee (ph) of McGill University described it as the most productive marine region in Canada that should never be placed in harm's way. Because of its circular counter clockwise currents any oil and gas contamination would be widespread along the Gulf coastlines of Nova Scotia, New Brunswick, Prince Edward Island, Quebec and Newfoundland and Labrador. This is unlike oil development off the Atlantic Coast where sometimes the drilling muds and other daily spills can be carried by current out to sea.

We have serious concerns about the offshore regulatory structure in the Gulf of St. Lawrence which does not protect the public interest. Let us explain why. As it exists right now, five Gulf provinces have or will draw on man-made maps that provide artificial jurisdictional boundaries for undersea carbon exploitation as if our Gulf were five separate bodies of water.

Of course it is not and the problem is fish and oil do not recognize provincial boundaries. They swim and float. This is why DFO has always managed the Gulf as one ecosystem for its five provincial fisheries. Canada's Gulf is a semi-landlocked inland sea and one natural irreplaceable ecosystem of magnificent beauty with spawning, nursery and migratory regions for over 4,000 different marine species – lobster, herring, mackerel, crab to name a few.

Our five provinces that share these same fish stocks that have sustained our First Nations, Gaelic and Acadian coastal communities for centuries. We hope to continue to do so for future generations and we trust you agree that our children deserve no less. May I remind you that these same fish swim across all provincial boundaries. We fish them when they get to Gulf of Nova Scotia.

Quebec fishes them. Gaspé fishes them when they go through there. That's how it works. We work with nature. As it stands now the white whale, blue whale, leather back turtle, piping plover and harlequin duck are in danger while Atlantic salmon, cod, fin whale and humpback whale are in trouble, a disgraceful indicator that in only 50 years our generation has taken for granted and degraded our natural renewable resources.

We have allowed unfettered industrial development and pollution with little regard for the precautionary principle and ecosystem approaches demanded by the United Nations Convention on Biodiversity and which are supposed to be a fundamental element of Canada's environment act and fisheries act.

This brings us back to the unworkable jurisdictional quagmire we find ourselves in. With all due respect, nothing exists in isolation. It is neither workable nor acceptable for our five Gulf provinces to be functioning through the National Energy Board and potentially five separate offshore petroleum boards.

This is proven by the fact that we have been trying to keep just one oil company out of the Gulf for 20 years now, dealing with two separate boards, first the Canada Nova Scotia Board when it issued a lease on the shoreline of the beautiful western coast of western Cape Breton and the Canada Newfoundland Offshore Petroleum Board who has issued a lease at Old Harry in the Laurentian Channel which is home to the largest concentration of krill in the North Atlantic where over 4,000 species feed and migrate through annually.

This junior company, Corridor Resources (ph), has never drilled offshore let alone a dangerous deep exploratory deep water well such as the world witnessed with the deep water horizon disaster which created deformities in seafood such as shrimp with no eyes and negatively impacted a myriad of species including the spawning habitat of blue fin tuna in the Gulf of Mexico yet we've had to volunteer for 20 years to keep this one junior company out of the Gulf of St. Lawrence which is one of the top breeding regions in the country.

It is home to one of the largest lobster production areas in the world. For citizens and stakeholders to have to deal indefinitely with potentially five separate boards for the same body of water is ridiculous and an abuse of the public trust. Does this sound like robust oversight and evidence based science? As far back as 2001 with our first battle with the Nova Scotia Board DFO scientists at that time put together a regional habitat report.

They looked at the entire southern Gulf of St. Lawrence and determined there are sensitive life stages of marine organisms happening year round and the standing committee on fisheries and oceans at that time called for a moratorium on any oil and gas development in the Gulf of St. Lawrence. Yes here I sit almost 20 years later still trying to achieve this and still trying to protect spawning, nursing and migratory regions from the oil and gas industry.

Please be clear, panel members. Allowing the oil and gas industry into waters where spawn and juveniles live is not co-existence. It is takeover. Furthermore, these unelected provincial petroleum boards fail to consider the ecological, economic and social impact these wells could pose on all our shores. The regulatory processes for the approval of seismic blasting are so slack in this country. They are basically a green light for the petroleum industry regardless of the lack of knowledge of species and the ecosystem.

I'm not going to go on about that because Dr. Linda Weilgart – Lindy is very modest but I do need you to know that she is an international expert on the impact of seismic on

marine mammals. She is highly qualified. I do have to tell you regarding this Canada Newfoundland Offshore Petroleum Board that it's a glaring example of what happens when you have petroleum boards handling the environmental protection. In October 2010 the Newfoundland Board allowed seismic blasting to proceed in the Laurentian Channel while endangered blue whale and cod were migrating through even after having been advised by whale experts against such irresponsible conduct.

These are the problems we are facing. As well, the current regulatory structure permits offshore petroleum boards to undermine federal and international obligations to protect wildlife threatened or endangered with extinction. This must not continue. These petroleum boards have irreconcilable mandates as both promoters of extraction and protectors of our environment who allow the oil industry to monitor their own environmental requirements.

After the BP oil spill in the deep water horizon Macondo disaster in 2010 the US government finally recognized this inherent conflict and separated these functions from each other and created two agencies instead of one. Newfoundland's wells report also recommended a separate agency for environment and safety be set up after the Cougar helicopter crash and the death of 17 workers but nothing has been done.

We recommend that you at least restore the powers of protection to Canada's environment act and fisheries act. Let the boards function only as promoters of offshore development because that is their bias and how they function anyway. Volunteers, individual citizens and First Nations should not be required to unilaterally protect this precious body of water indefinitely without support from federal agencies such as Environment Canada and DFO.

This is exactly what has transpired for decades because of memorandums of understanding signed by DFO and Environment Canada deferring their powers of protection to unelected provincial petroleum boards. MiqMaq, Innu and Maliseet have called repeatedly for a moratorium on offshore oil and gas development in the Gulf of St. Lawrence.

In July 2014 at the AFN annual assembly in Halifax and at the MiqMaq water ceremony in October 2015, I have included a link for you. It's a beautiful little film that you should watch that you can get via your computer. Since 2010 we have had the privilege of working on this important issue with the MiqMaq (indigenous language) Secretariat which represents the 7th district of the MiqMaq Nation (indigenous language).

I want to clarify that our coalition does not speak on behalf of the MMS. I also want you to know that in July SOSS, our coalition and the MMS wrote to this panel regarding the terms of reference because we were very disappointed that they didn't include a review of Canada's offshore accords act but since then we have received a letter from Jim Carr, Minister of Natural Resources who encouraged us to come here today and speak with you.

To prove to you yet again why this regulatory structure needs to be reviewed, you need to know that since we wrote to you in July the Newfoundland Board has opposed issuing a new license to this same company to replace its old Old Harry license in the Laurentian Channel. This is outrageous because the Newfoundland Board is attempting to start the process all over again.

This proposed new license must not be approved. This license was issued January 15, 2008 for the Old Harry Prospect in the Gulf of St. Lawrence midway between the Magdalen Islands on the west coast of Newfoundland right through the channel where all the species migrate including the MiqMaq's Atlantic salmon. They will not have that path.

This four year license was extended in 2011, 2013 and in January 2016. It expires in January 2017. It is supposed to be a non-renewable license but the board waved the million dollar deposit required for license extension each and every time it gave them an extension. They've exhausted all the legal extensions and now they want to start the process all over again.

We say this board had nine years to consult with First Nations and the public. It failed to adequately do so and they only have themselves to blame. The attempt by the board to start this process all over again confirms what we have been saying. Canada's offshore regulatory structure needs to be reviewed and overhauled.

As it stands now there is no oversight. It is an abuse of the public interest and it is not protecting the environment. Therefore we respectfully request that you restore vital powers to the Environment Act and Fisheries Act to protect Canada's longest coastline in the world and especially the Gulf of St. Lawrence from offshore oil and gas development.

Bearing in mind that even with a moratorium in the entire Gulf of St. Lawrence and Georges Bay Canada's offshore oil and gas industry will still have unfettered access to over 88% of east coast waters. We request therefore that you recommend to the Honourable Jim Carr, Dominic LeBlanc, Catherine McKenna and Carolyn Bennett they should not approve this new licence for Corridor.

Rather they should exercise federally legislated powers to impose an immediate moratorium on oil and gas exploration in the Gulf of St. Lawrence to protect our sustainable multibillion dollar fishery and tourism industries, our culture, way of life and the coastlines for half the provinces in Canada. Thank you.

Johanne Gélina: Thank you very much. Just to manage expectations first, we are not in a position as a panel to recommend not to do this or not to do that with respect to specific projects. But we are allowed to take projects as examples to

illustrate something that we may want to recommend at some point. I want to make sure you are not expecting a cut and past of your recommendation in our report.

Having said that I have one or two questions before I turn to my colleagues. We will know more about the boards in the coming weeks as we do our work. Can you explain to me if those two boards, the Nova Scotia one in particular is doing some sort of environmental assessment as we know what they are like with CEEA?

Mary Gorman: Regarding what I've just spoken to you about? They've done written stuff. They hired a company called AMIC (ph) which is a very reputable company but they're also a company that if you look at their website they trade on the London Stock Exchange as being experts in beginning oil and gas projects and going all the way to finishing oil and gas projects.

We had major issues with a company that makes its living on oil and gas projects, handling an environmental assessment regarding the Gulf of St. Lawrence. They've done a couple of – AMIC put the study together.

Johanne Gélinas: We won't get into AMIC per se but just the process itself, how you will qualify this process in terms of doing a proper environmental assessment.

Mary Gorman: How do I think it should happen? Well, for me personally and I'm speaking not on behalf of the coalition I would like to see a moratorium in the Gulf of St. Lawrence. I don't think the oil industry needs or deserves 100% of east coast waters.

I think that why anyone sane would risk multibillion dollar industries that are sustainable and renewable at this point in history to put a deep water exploration rig in the middle of a channel is not common sense. My point to you is they have not been doing anything and I don't know why. What I think they should be doing, there should be a Gulf wide, I can tell you what the MMS position is. They are demanding a 12 year moratorium and they want the entire Gulf studied.

They want it studied as a gulf-wide ecosystem. From my point of view I think there is enough science that says this is wasting everybody's time. Get out of the Gulf of St. Lawrence. The risk is too high. We have enough industries happening there that deserve to be protected.

Yes our MiqMaq certainly want 12 years of study at the very least. I would say no matter how much study you do there's always too much we don't know. What we don't know is much more than what we know.

Johanne Gélinas: To your knowledge what plan of consultation the board is doing?

Mary Gorman: The consultation was and I can tell you how bad the consultation was. They had meetings in 3 or 4 places. In Nova Scotia they never held a meeting in the Gulf. They held it on the other side of the province. They held it in Sydney. I had to drive three and a half hours to get there. I wasn't invited. Some people were invited. Our coalition was not invited. I drove there anyway and it was basically I like to call them the dog and pony shows. It's a walk in/walk out, a few slides, a few posters and you're in and out in ten minutes. That was it.

Johanne Gélinas: We'll stop here because my colleagues have other questions. Thank you.

Rod Northey: Trying to work through the moratorium. That we'll leave with you. We have a mandate on EA. DFO you said in the early 2000's did a broader regional. Is there a federal body or agency that you would signal as being the appropriate body to do the study of the Gulf that you seek that would have the kind of ecological mandate that you think is important?

Mary Gorman: I would suggest that would be either Environment Canada and/or a combination of Environment Canada and DFO at least with those two departments. A huge issue for us is the conflict of interest. It's very difficult. These boards in fairness to them are trying to bring industry. They're trying to bring business into provinces and often into hard pressed areas.

They are not neutral. They are not unbiased. Every way they look at things is through mitigation. We shouldn't go there. This region, the Gulf of St. Lawrence is too sensitive. It is that simple. It's where our babies live. If we can't protect the babies we're not much of a society.

Often fishermen get very mad at DFO but I do trust that many of their scientists are not biased and are not in the pockets of the oil and gas industry. I do not feel the same way about boards that – in Canada everything is open until people like myself literally give up their lives. John is another one and Charlene and Marlene. We have to give up our lives because we're filling the role that Environment Canada and DFO are mandated to fill. This is not acceptable.

I started this in my 40's and now I can apply for my old age pension in a few years. This is not what I intended to do with my life but I will not let irresponsible industries come in. My husband was an inshore multispecies fisherman. He did more for the fishery than anyone else I know. I will not see – it's only ignorance. People haven't done their homework.

If DFO and Environment Canada and the Newfoundland Board and the Nova Scotia Board would do their homework they would know you can't go into the Gulf of St. Lawrence. MPA's only protect bodies of water from fishermen. They don't protect

them from oil, from the pulp mill wetlands, 28 million gallons a day going out from Northern Pulp in Pictou County and has been for 50 years. That's not protected. Either you have to redefine that definition or you have to start creating MPA's that include sustainable fisheries.

Johanne Gélinas: Your message comes across pretty well. We will thank you very much for your submission and also for your comments.

Unidentified: Can I make one point?

Johanne Gélinas: **Very, very short. You're past your time.**

Unidentified: We talked earlier about looking internationally for places where you might get some information about how to do things better. In Norway everything is closed to the oil and gas industry until they prove that it can be open and they can do it safely. In Canada everything is open to the oil and gas industry until people like this wonderful woman or myself step forward and say, wait a minute, that doesn't make any sense.

The other point about panels and who comes in and does things. Canadian panels are meant to be fine ways to enable first processes. When you see a panel set up in Canada it has a primary function to enable, to find a way to make something move forward. There are times when that isn't appropriate such as the time being discussed right now. The panel comes with a real peril for people in the community who have real information and knowledge about what can and can't happen safely. A panel isn't necessarily always a good thing. Thank you for giving me that opportunity.

Mary Gorman: We really appreciate what you're doing. We were very uplifted when the Prime Minister announced this review.

Johanne Gélinas: Thank you very much. I would like to invite now Dr. Lindy Weilgart.

DR. LINDY WEILGART, UNIVERSITY OF DALHOUSIE

Dr. Lindy Weilgart: Thanks very much. I'm just going to be talking about the noise aspect of the seismic that Mary touched on. Quickly my background is working on undersea noise pollution for 22 years and have been working for all my degrees on whale acoustic communication in the wild. I've been invited as a noise expert for these various governmental and international organizations.

My background is I was an invited expert for back in 2004 to DFO for the National Assessment Meeting and have been also invited to several others. Back in 2004 I was appalled to see that aside from me the only stakeholders invited were oil and gas engineers. There were no fisheries representatives, no indigenous groups, no NGO's I found that process was a major farce and the statement of practice on seismic is still not scientifically based nor is it environmentally protected.

The mitigation measures continue to be woefully inadequate. They're largely untested for efficacy and they're not reflective of current scientific understanding. To understand this whole issue better you have to know sound in the water behaves. It's about five times the speed of that in air. Sound on land only goes to 1 – 10 km but underwater it can travel thousands of km very fast.

Seismic air gun surveys, you'll have a seismic ship here with an array of air guns that shoot very loud intense pulses or shots of air under high pressure. It's the loudest man made sound aside from explosions. It's for detecting oil and gas under the sea floor. The sound then goes through sometimes thousands of metres of water and then penetrates into the earth's crust, another 100 km and then goes very faint echoes but you can imagine how loud it has to be to travel that distance, come back to these sensors that are towed behind.

These are loud enough to take your arm off if fired at short range. To give you an idea of the extent of potential impact, these are underwater moored hydrophones, underwater microphones on the sea floor. They picked up the predominant part of the background noise was seismic surveys 4,000 km away in Nova Scotia. Not just heard but it was the loudest part of the noise was the air gun sound. This is from a decade of sea floor monitoring and off Nova Scotia three surveys were heard at any one time over the summer.

All marine animals depend on sound for all their life functions such as these listed here. I'm not going to go through all of these but to give you a sense of the impacts that have been documented on marine animals, you can scan through this and see these are population level impacts coming down to stress and death and decreased reproduction. I'm not going to go through all these individual ones but to give you a sense of all the documentation on fish and invertebrates from seismic noise, this is a fish ear before the seismic survey and this is after where it's completely ripped from the membrane.

We're talking structural DNA damage, abnormal development, fewer embryos and this continues, various disruptions in schooling and mating and a meta-analysis showing overall negative impact on behaviour and physiology of fish. Also on whales and dolphins you have increased stress hormones and hearing damage causing more net entanglements, avoidance of habitat, disruptions in feeding and mating and decreased species diversity.

Noise can also kill. This is both seismic and enabled sonar can cause whales to strand and die from severe hemorrhaging in their brain and other vital organs. This gives you an idea of the very important issue of masking where sounds of interest are obliterated. This large circle shows the fore noise, in this case shipping noise but it would work for seismic as well.

You have a communication range of that size. Whales can communicate with each other over that range but after noise you have this tiny dot. It really changes the whole soundscape, the whole acoustic scene for all marine animals. To have an effective environmental assessment for seismic surveys you would need to have good planning to allow the collection of sufficient baseline at least one year pre-noise.

To my understanding that is not the case here in Canada. You need a good before but also during, after impact studies and you need them with appropriate power and sensitivity analysis to show that you could detect a subtle effect if there were one there. Most importantly as Mary mentioned you need to avoid those protected and sensitive areas and/or select times of year. Sometimes you can get away with that and also have a requirement for using the quietest technology possible.

That's what the Convention on Biodiversity requires as well. Marine vibra-size (ph) is one technology that is probably best, less impactful than air guns. That's not being pursued at all in Canada and you should have sound propagation modeling and verification in the field. You should have good visual and acoustic monitoring. What happens now is there's a 500 metre radius safety or shut down zone where visual observations, people are looking out for whales and dolphins.

If they enter that 500 metre radius safety zone then the seismic is shut down. That of course you need that to be done adequately and with suitably trained personnel. The shutdown periods do have to be longer if you're dealing with deep diving sensitive species like beef whales. You also vitally need to address the eggs, larvae or benthic organisms that cannot swim away and there have to be rigorous quantitative cumulative and synergistic impact analyses of all the human stressors and threats in the area, both the noise and the non-noise.

There has to be long term monitoring of possible delayed or extended ecological impacts. The impact analysis has to include the masking and it has to extend beyond the horizon, not just that immediate small safety zone. There have to be alternatives to the proposed actions and what those risks are and vitally a proof of efficacy of these mitigation measures. Otherwise they're just window dressing.

Precaution is very important because we still don't know the extent or degree of the impact in all scenarios and especially with whales and dolphins we do not have good population numbers that are accurate. They're plus or minus 40%. 80% of precipitous whale and dolphin declines in population would be undetectable with current monitoring and the ocean is just not a controlled laboratory.

We can't use short term visible behaviours at the surface to determine if that's safe for the population. We need to have precaution built in. This is just an idea of what's coming down the pipeline. I want to point out this tiny marine protected area of the Gully. You can see all these leases occurring around it and what's coming in the future possibly, the forecast areas. This Gully took almost ten years to establish. If you're going to have leases all around it, there's not much point.

As I told you, sound travels 4,000 km at times. For seismic in Canada the most effective mitigation is by far the area closures. Some areas just have to be off limits, for instance near the Gully, marine protected area, the Gulf of St. Lawrence, Georges Bay, the spawning and breeding areas, the migration corridors and these areas of resident endangered species like the bottle nosed whales of the Gully have to be off limits.

There has not been meaningful indigenous consultation and again no mitigation beyond the horizon presently. Seismic shooting unbelievably is allowed in conditions of poor visibility or at night and I've had oil and gas companies say why can't US laws be much more like Canadian ones. They're so much laxer. That's not a good sign.

In conclusion noise constitutes a widespread usually long term degradation of the acoustic habitat, the vital habitat that whales need and all marine animals need. Canada's seismic mitigation is inadequate. It's untested for efficacy. It's not science based. The most effective mitigations are the area closures. As well there is not adequate meaningful indigenous consultation. Thank you.

Johanne G linas: Thank you very much. You're a very good student, right on time. I'll go with the first question. I suspect and correct me if I'm wrong that specialists like you may not be numerous in Canada so you may be asked once in a while to look at some impact studies and get your views. How would you qualify those impact studies? How your input will be considered in the long term or the decision making process?

Dr. Lindy Weilgart: Going back to that 2004, I could have all the scientific studies pointed right there, they were ignored. The oil and gas people would get their hired guns and they would take any tiny bit of uncertainty. There's always going to be uncertainty. It's never going to be an airtight case.

It was not viewed with precaution in any stretch of the imagination. It was a very sobering experience that no amount of science would ever have changed that process. It was very clear from the outset that the red carpet was being laid for oil and gas and science had no meaningful part. It was window dressing. It was just for appearances, a fig leaf.

Johanne G linas: It's still the same for you? It looks the same?

Dr. Lindy Weilgart: I don't think a whole lot has changed. I think they have done some – again indigenous consultation feels the same way to me talking with the communities. They say it's pro forma, check the box. We consulted them. We got no answers to questions. We were not seriously asked. It was just window dressing. I'm afraid not much has changed.

Johanne Gélinas: If we were to go one step further with respect to cumulative effect, what will you say?

Dr. Lindy Weilgart: That's what I'm talking about with these synergistic – yeah. How would you do that?

Johanne Gélinas: The big portrait you're able to give it to the proponents of all sorts. It's not only about their project but this is the picture of cumulative effects. What they will respond to you?

Dr. Lindy Weilgart: They just say we don't know how to do that or it's impractical or we can't predict what will happen in the future. I don't think there's ever a good answer. It is difficult to do but again we're talking about burden of proof problems again. It's for you guys to work it out. If you can assure us and work out how you can make a rigorous quantitative study and show this will be okay, then maybe we can be convinced. Right now it's always the burden of proof seems to be on the people concerned about the environment.

Doug Horswill: The assessments you're talking about where noise would be an issue, can you tell us a bit more who is conducting them and how are they conducted? How are they coordinating between Fisheries and Oceans? Is this being done through the Nova Scotia Offshore Board? Could you elaborate on the process and also is it the same in Nova Scotia and Newfoundland with the two different boards?

Dr. Lindy Weilgart: I don't deal much with the boards. The boards have never asked me for any advice. DFO asks me. The process by which environmental assessments are usually done are as Mary said you get these consultants. The consultants often have as their specialty some will do oil and gas, that's their bread and butter. They are in a conflict of interest situation, absolutely. They're not bad but they are certainly in a conflict of interest position. These are not free agents.

Doug Horswill: That's in a sense a different question, whether you have experts or you don't but who's the responsible authority in the conditions you're talking about related to seismic and the approval of seismic activity? Who's assessing the consequence?

Dr. Lindy Weilgart: I think it's supposed to be the board. DFO set aside the protected areas so they have jurisdiction over that I believe but otherwise it's the board.

Johanne Gélinas: (Off microphone) Yeah, but it's the board.

Doug Horswill: Thank you, that's what I wanted to know.

Renee Pelletier: I'm trying to relate some of the concerns you've raised today back to our mandate in looking at how to change federal environmental assessment. If you can name three things that you think need to change, what would those be?

Dr. Lindy Weilgart: About environmental assessments in general now? I don't know if I'd want to go as far as general because I'm noise focused but certainly more accountability and oversight, transparency, those are definitely big. I think there should be scientific accountability. I think the burden of proof issue is a huge one and probably the conflict of interest, those three in general.

Rod Northey: I'm trying to figure some of this out. In the past there were – there were two 1997 reviews, one of Terra Nova, one of Sable Gas. Both would have been the kinds of projects that might involve your thing. Was that prior to your engagement in this part of the world?

Dr. Lindy Weilgart: No. I did have some – I did testify at the Sable (unintelligible) hearings.

Rod Northey: Who, if you can recall, it is a long time ago but I'm trying to get a sense if an EA did go on and I'll come back to whether anything has happened since, but if an EA did go on, where you might have come in and for our purposes what your reflections are on that.

The panel is generally regarded as the most rigorous approach of federal EA. I'm curious whether that met expectations and if you want to go away and think about it. We're trying to figure out where to go. My colleagues were all interested in trying to figure out what next. If you had some engagement in at least one, maybe that would give you some thoughts as to where we might improve or maybe you've got a totally different model in your head.

Dr. Lindy Weilgart: All I remember is I testified. I think the bottle nose whales of the Gully were a concern even then. I cannot recall if anything was done as a result of that. I don't know what the follow up was. My sense is it wasn't much.

Rod Northey: Have you participated or been invited to participate in any of our environmental assessments since then?

Dr. Lindy Weilgart: Just the seismic ones.

Rod Northey: My impression of those, were those in fact environmental assessments or were those just studies?

Dr. Lindy Weilgart: Some of them were – the last one was a review of seismic mitigation about SARA (ph) listed species so they were like scientific consultations with reports at the end. I don't know if that –

Rod Northey: I've got one further question. You had a slide that had the marine protected area. I want to make sure I know where it is. Yes, okay. Is that area established or just identified?

Dr. Lindy Weilgart: It took ten years but that is established now and there are regulations about oil and gas for that one and for noise. There is not I don't think a particular noise limit but it's on a case by case basis and they have sensors, hydrophones there on the bottom and I think they keep track of the noise levels. To my mind there is no level which the noise can't go over or anything like that so it's taken into account. It's not terribly rigorous.

Rod Northey: What's the name of that area?

Dr. Lindy Weilgart: The Gully. In fact these two other submarine canyons beside it, Haldimand and Shortland are also being proposed for marine protected areas. That whole area is very important to this tiny population of highly resident bottle nose whales. Yet still you have leases all around. In fact I think there are some other ones all around it. I'm surprised, I couldn't find a map but I think there were some around here as well.

Johanne G  linas: Just a question of curiosity. We had a presentation earlier today with Marine Renewable Technologies. Those technologies are making noise too?

Dr. Lindy Weilgart: In that case they do make some sound. In that case I'm not as fussed about it because I want the whales to avoid it. If sound isn't the major environmental impact and if it does serve a purpose of warning animals to avoid it, then I view that differently. I think for marine renewables, most of the ones I've seen I'm more concerned about collisions and changing the whole ecosystem for the barrage ones and so on, so noise wouldn't be top of my list on those.

Johanne Gélinas: Thank you very much. Thank you for your time. I would like to invite now Ms. Lisa Mitchell from the East Coast Environmental Law.

LISA MITCHELL, EAST COAST ENVIRONMENTAL LAW

Lisa Mitchell: My name is Lisa Mitchell and I'm the staff lawyer for the East Coast Environmental Law Association or ECOLA. ECOLA is a public interest environmental law charity based in Halifax. We're the only such organization in Atlantic Canada and our mission is to facilitate innovative and effective environmental laws and the fair application of those laws.

We do that by raising awareness, supporting education of environmental law professionals and collaborating in initiatives such as this that focus on providing Atlantic Canadians with a clean and healthy environment. I'd like to start by acknowledging the efforts of the federal government to engage with Canadians on a reform of environmental impact assessment process.

We have waited many years for this and we really appreciate the opportunity to present to you today and to have the opportunity to contribute to a future legal framework for EIA that addresses many of the lessons we have all learned. As a member of the environmental planning and assessment caucus of the Canadian Environmental Network ECOLA supports the twelve pillars of the next generation EA developed through the EA Reform Summit.

I know you've heard some about that already. In the interests of time and capacity I'm going to focus today my attention on two of those pillars, sustainability as a core objective and participation for the people. I have personal experience with several EIA processes in this region that I believe have valuable lessons including the Fundy Tidal Energy Strategic EIA 2008 which I know has been raised, the Emera Brunswick pipeline project in 2012 which was the first substitution and the Energy East pipeline project which is underway to some extent now.

However today I'm going to draw on my experience at the 2007 White's Point Quarry marine terminal joint review panel process. I'm going to start with public participation. Meaningful public participation is early, ongoing, accessible and dynamic and it occurs at all levels of assessment and has the ability to influence the outcomes. From 2003 to 2007 I personally provided support and legal advice to community members on Digby Neck who opposed the proposed White's Point Quarry marine terminal project.

I worked with the members to obtain participant funding through CEAA. I coordinated submissions by more than 25 experts who voluntarily gave of their time and expertise to review material, undertake research and submit comments as well as presenting to the

panel. I participated in the full two weeks of public hearings. One of the key complaints throughout the White's Point Quarry EIA process was the failure of the proponent to provide a complete environmental impact statement that was logical, well supported and met the EIS guidelines.

This had an enormous impact on public participation and expert overview of the EIS. WE had to repackage the information in the EIS to deliver it to the volunteer expert reviewers. Given they were providing their time and expertise at no cost, we could not ask them to review 3,000 pages of disjointed environmental impact statement and pick out through a myriad of sections things that would be relevant to their review. We did that for them.

The joint review panel repeatedly asked the proponent via information requests to submit studies and documentation that was required by the environmental impact statement guidelines. Ultimately and much to the surprise of the community I might add the joint review panel set down the dates for the public hearings before the information requests were met because, we presumed, there was concern that the process clearly being held up by the proponent was taking too long and the government and the JRP would be held responsible for the delay.

The White's Point JRP was a committed and well informed panel that appears to take seriously all of the information that they received. The experience of presenting to the panel was for most a positive experience. However the funds provided to review the EIS, obtain expert advice, prepare submissions and participate in the process were far from adequate.

The challenges posed by the behaviour of the proponent including their unwillingness to take the process seriously or meet its requirements compounded the difficulties faced by members of the public seeking to participate. There was well coordinated and successful participation by the community in this case because I believe some of the members were retired professionals who were able to give of their time and others quite frankly organized amazing lobster dinners that raised a lot of money.

The next generation of environmental impact assessment in Canada needs to recognize and address this inherent imbalance between a project proponent and citizens who may oppose the project or have concerns or questions they'd like to bring forward. There are multiple ways to address this imbalance that range from having independent science and I know you've heard a lot about that to improving funding for citizen participants.

Furthermore next generation EA needs to ensure that proponents are held accountable when they fail to meet the requirements of EIS guidelines or information requests from those who are responsible for assessing the project. I'm going to move on to talk about sustainability as a board objective.

As stated in the pillar all assessments should ensure the long term health of the environment and social values and the equitable distribution of risk impacts and benefits. Sustainability as a core objective is the first pillar of next generation EIA because it requires a fundamental shift in our approach to project assessment.

If we make the focus of an EIA on demonstrating a net contribution that goes beyond short term gains or a handful of jobs then we view the project proposal with a very different lens. No longer do we simply consider the lowest threshold of no significant adverse effect but rather and on balance will the proposed project make a long term positive contribution to the health of the environment, the economy and social values.

There's academic literature on net contribution to sustainability that can provide you with guidance that is far beyond anything I can present today. However I would like to focus on the joint review panel for the White's Point Quarry and their determination that the proposed quarry and marine terminal would make little or no net contribution to sustainability.

The EIS guidelines set out by the JRP for White's Point stated that the panel would evaluate the project's contribution to sustainability on the basis of several factors. One of those factors was "the extent to which the project makes a positive overall contribution towards the attainment of ecological and community sustainability at both the local and regional levels."

The JRP provided very clear guidance to the proponent on their duty to consider the impact of the proposed project on the long term sustainable development of the local communities. What the JRP received and they speak to this in their final report was an environmental impact statement that focused only on short to medium term employment opportunities.

The JRP noted in their final report, "the proponent failed to consider how benefits derived from the project over its lifetime might be used to create long term sustainable employment opportunities and maintain a healthy and resilient environment." The JRP for the White's Point Quarry took a well-considered approach to sustainability assessment and clearly applied that approach to the assessment of the proposed project.

The history of EIA decisions in Canada reflects a mindset that every proposed project is ultimately a good project and every proponent is ultimately a good proponent. All that is needed to ensure the project and the proponent are good for Canada is to impose conditions and mitigation measures that may or may not be enforced, may or may not be monitored and that may or may not be followed up on.

The White Point JRP took a different approach. They determined that not every project is a good project or can even become a good project. To that end and within their legal mandate they recommended that the project not proceed and in keeping with

that recommendation they didn't identify any mitigation measures for the project. Next generation EA needs to incorporate the principles of sustainability to ensure that those responsible for the assessment of a proposed project can use the principles to guide their work.

I know you're also familiar with those principles East Coast Environmental Law is currently an intervenor in the federal court proceedings to have the NAFTA tribunal decision in favour of Bilcon, the proponent in the White's Point Quarry, set aside; a decision that maligned the work of the JRP and paid little attention to how the proponent conducted themselves during the course of the EIA.

Just this past Friday our organization held a fundraiser to raise money to support our intervention in the federal court proceedings and so it goes. More than ten years after we worked so hard to raise funds and bring experts to the JRP to review and make comments on the proponent's claims, we do much the same thing in the hope that we can stave off this somewhat in my opinion bizarre threat to environmental law in Canada.

We need to learn from this to ensure that future EA processes are immune from this type of challenge. Incorporating the principles of sustainability, taking a learning approach to EIA and ensuring that review panels have the room to be innovative in their approach and recommendations are some of the possibilities that could be considered. There's much more to say but I'll stop here and do my best to provide a written submission with more details by your December 18th deadline.

Johanne Gélinas: Thank you very much. Even though you will send us a submission, if ever you're willing to share your notes it would be more than welcome.

Lisa Mitchell: I sent my notes. They probably just didn't get to you in time.

Rod Northey: I'm going to step away from White's Point for a moment and just talk about sustainability. We heard last week from somebody suggesting Mackenzie Valley pipeline too. So to speak its panel report had a whole chapter at the end on sustainability. I'm aware that Lower Churchill had an appendix as well as conclusions on that.

Are there other places you would have us turn? Should we look at White's Point for how it dealt with sustainability? Beyond that is there any other east coast piece or something you've been involved in you would suggest we look to for a framework that's not just academic but is in the play of environmental assessment today?

Lisa Mitchell: I'm not familiar with any other EIA process that incorporated sustainability but that doesn't mean they don't exist. I'm just not aware of them.

Rod Northey: Is it the three pillar approach? People have different things by what they mean. When you say sustainability do you have a summary of what you mean by that? We've all been trying to work through our own summaries.

Lisa Mitchell: I turn back to what the joint review panel said which is net contribution to sustainability is looking at the long term impacts and evaluating all those aspects and not just focusing on one aspect.

Doug Horswill: I'd like to continue that theme for a moment. Long term and looking at all aspects, what could you point us to that would help us think about how one makes the trade-offs? Some of those impacts or effects are positive and some are negative and different elements of society have different values on it.

What guidance could you point us to that would help us think how those trade-offs within the equation or principles of sustainability should be made? Do you have any thoughts on that, not that it necessarily is in an EA somewhere but just generally?

Lisa Mitchell: First of all I think there is a plethora of academic literature on net contribution sustainability. I think there are many people that are much better at it than I am who have studied it and have experience in that regard, that their information would be helpful to you and I'd be happy to provide some of that and can do that in my follow up submission.

I think you're asking about trade-offs. That was how you brought this forward, there are trade-offs. Sometimes the economic impact is positive and the environmental impact is adverse. What's the impact to the community? What is the impact to social values? Is that not really the essence of environmental impact assessment?

If I were to go back to this particular process I would say that the biggest challenge was that the proponent didn't understand. I think we need to educate the proponents who are participating in this process and bringing forward or being asked to bring forward this information. They need to understand what it means to contribute that.

In this particular case one of the points was – in my mind it's not that difficult. It's challenging of course but it's not that difficult to get your head around how to think about if you're going to put a large quarry and a marine terminal in a small community in a fairly pristine area.

You're being asked by the panel to think about what the impacts to the community will be and what can you do with your project to provide some positive impact where you know there's going to be negative impact. That's what they were asked for but never received any of that. I think proponents need to take on that challenge to demonstrate that.

Renee Pelletier: You made the point we should ensure the proponents are held accountable for meeting the guidelines and properly responding to IR's. When you say that do you mean held accountable in that you not proceed with the assessment until that's been done or did you have something else in mind?

Lisa Mitchell: I think at this stage unless I put more thought into it that is the key. For whatever reason the pressure that was felt in this particular review to move forward when clearly the documents that were being asked to be submitted were not, was a significant issue.

At the very least I would like to ensure that the clock if you will does not start until that application or that EIS submitted by the proponent is acceptable to the person who ultimately has to make the decision and also of course based on public comments and public input.

CHARLENE MORTON, CAMPAIGN TO PROTECT OFFSHORE NOVA SCOTIA

Johanne Gélinas: (Off microphone) with Ms. Charlene Morton. Ms. Morton you are accompanied with two other people so I would invite you to introduce them to the panel. You will say a few words about the campaign?

Charlene Morton: On behalf of my CPONS friends, Marilyn Ketty (ph) here and Marian Moore (ph), all of us from the south shore of Nova Scotia I'd like to first thank you for accepting the invitation to be part of this very important review panel. We look forward to your synthesis of ideas and practical strategies to guide the government in making fundamental changes to federal and by extension provincial environmental and regulatory processes.

CPONS is the campaign to protect offshore Nova Scotia, a project of the south shore chapter of the Council of Canadians with the support of local volunteers. The campaign calls for a total reform of the Canada Nova Scotia Offshore Petroleum Board and requests that joint federal provincial boards are included in this comprehensive review of environmental and regulatory processes.

Our core objectives are we need to shift the current focus in EA and regulatory agencies from simply addressing and mitigating the impacts of proposed projects to protecting the things we value, the health of marine life, sustainability of marine resources and energy, socio-economic livelihoods and wellbeing of maritime communities on land and sea.

A reformed EA process should focus on sustainability-enhancing outcomes and a net contribution to the well-being that safeguards the natural resources and beauty that we and all our relations depend on and enjoy. Before I go further I wanted to acknowledge

that I'm grossly quoting and paraphrasing the contributors to the federal environmental assessment reform summit proceedings in May in Ottawa.

We are most appreciative of the work done at the Summit as it has helped us articulate both the problems and solutions with the current regulatory system. In other words we are not experts and we have relied heavily on this. Before we look at the specific concerns of CPONS we want to acknowledge similar concerns presented to the panel earlier this afternoon by Mary Gorman representing the two decade long work of the Save Our Seas and Shores.

The focus of our campaign is with the Canada Nova Scotia Offshore Petroleum Board. Like the Canada Newfoundland Board the Nova Scotia Board is both a problem and we have to add a potential part of the solution, more about that later. With that small but positive observation about joint regulatory boards we nonetheless must reiterate that the current regulatory system is fundamentally flawed in many ways.

Today we focus on three, the lack of transparency and flow of information, the inadequate public participation and the diminished influence of the federal climate change commitments on provincial decisions. First the lack of transparency and flow of information, CPONS is concerned that all members of the Nova Scotia Petroleum Board are associated with different components of the oil industry.

In other words, the main decision-making authority will be perceived, at the very least, to be motivated by pro-industry outcomes. Trust in any board will be undermined by the perception that independent or arms-length decision-making is most unlikely. Furthermore, trust cannot be garnered simply by providing hollow positions on advisory committees and we have spoken with John and fishers of the community and their role on advisory committees with the board has been most frustrating.

Or stringing together staged encounters with the public. All three of us have been to one of those public consultation processes. In our experience with the CNSOPB, we have also witnessed guarded accounts of offshore "incidents" in which information or details are withheld while more decisions continue to be made behind closed doors.

Accordingly, the composition of regulatory agencies and flow of information both need fundamental changes. All relevant information should be easily accessible and understandable to the public. It should be shared between the different levels of assessment and remain available for future use.

CPONS believes that, without public participation, the Offshore Petroleum Board will continue to approve licenses to drill exploratory oil wells adjacent to the province's (and we add Maine's) most important fishing grounds and nurseries in the fragile marine environment next to the George's Bank and on the Scotia Shelf.

Many Nova Scotians, especially Nova Scotia fishers represented here this morning by John Davis and the Clean Ocean Action Committee, see these decisions as unwise and argue that the precautionary conditions imposed by the Board do not adequately reflect the risks involved. CPONS maintains that a reformed board that commits to full public participation would be in a better position to understand and assess the risks to marine life and to industries that contribute billions of dollars every year to our communities. It is the number one contributor to our Nova Scotian communities.

The solution then is to embrace participatory processes that incorporate the insights of deliberative democracy and environmental justice. By participation, we mean encouraging and facilitating the active involvement of stakeholders, members of the public, relevant authorities and proponents in environmental assessment with the aim to enhance the quality and credibility of assessment decision-making.

Public participation is about both providing and receiving information, which in turn creates capacity for learning and innovation. We have certainly learned a lot. We've only been together on this since April and talking to the fishers and Mary and researchers, we've learned a lot and innovation, new spill cleanup technology that's not being used.

Finally, public participation has to be early and ongoing with legislative support to influence outcomes and to act on non-compliance. The concept of joint federal-provincial boards, such as the Canada-Newfoundland and Canada-Nova Scotia Offshore Petroleum Boards, is as I said earlier a step in the right direction.

That said, CPONS wants to underline the value of multi-jurisdictional environmental assessments and the importance of federal leadership in this context. When the decision-making process is grounded in a collaborative approach, everyone has a better sense of ownership, understanding, and stewardship.

A reformed process needs to overcome constitutional, legal and political obstacles to integrate provincial, municipal and Indigenous governments as well as other stakeholders of course. Given the growing interest in offshore development and we've had those presentations today with the tidal, there's wind offshore, fish farms, marine ecology parks and other upcoming alternative energies, we need strategic and regional planning and assessment in addition to project assessment so that decisions are made in the context of interdependent provincial, national, and I might even say global communities.

The flaw though in today's joint and this is not yet a multi-jurisdictional regulatory agency, CPONS has learned that offshore oil activity within Nova Scotia has been heavily influenced by the implementation of provincial plans and policies. An example is the 2009 Nova Scotia Department of Energy Strategy, Toward a Greener Future, which outlines the province's plan to renew offshore exploration and development and again reiterated in Premier McNeil's letter to the Minister of Energy in December.

Because provincial plans here in Nova Scotia are at odds with federal government's climate change commitments, we support strong federal oversight. In short, the starting point should be to help Canada meet its commitments under the Paris Agreement. Before asking to drill offshore or where to drill, we must ask, is the request appropriate at all, given climate targets and the identified problems with fossil fuel extraction, I should say problems and temptations of fossil fuel extraction.

To close, we would like to add that we support the premise of the Federal Environmental Assessment Reform Summit Proceedings, that is "the current environmental assessment regime in Canada under the Canadian Environmental Assessment Act 2012, is broken."

Canada needs a new regime consisting of what they call the next generation assessment law, regulations, and policies as partly reintroduced here to deal with the threat and impact of climate changes, whether due to human, industrial or natural causes. Taking into account the three areas for improvement we explored today and by broadening the scope of EA to Sustainability Assessment, we believe we can foster well-being for all my relations by practicing sustainable livelihoods.

Johanne Gélinas: Thank you very much.

Doug Horswill: Thank you for your presentation. You mentioned or discussed a bit about the board itself, its makeup. What would your ideal board look like? How would you make up a board that covers this multijurisdictional process? You referred to oil and gas industry experts in the sense I took it from you that there was implied bias there. How do we deal with that? What would you think that board should be made up of?

Charlene Morton: This is the multijurisdictional idea?

Doug Horswill: Right. I think you were referring at the time to the Nova Scotia Offshore.

Charlene Morton: I think the only solution is what we've presented or what the summit presented in May, to have multijurisdictional process, a tiered process where there is full participation and equal input. If the main authority is just oil pro-industry board then we have a major problem.

Doug Horswill: So you would have it shared between what? DFO and any other components in that mix?

Unidentified: We would envisage a board where there would be of course a representative of the oil industry, where there would be fishers, where there

would be people from tourism, where there would be people from the community at large who could potentially be impacted by a decision regarding offshore drilling.

We would see it as more broadly representative rather than now where our board is really dominated by oil industry people. They do seek advice from fishers from time to time but they have no decision making process. They're heard with no obligation to act on what they have brought forward.

We also think that the board in terms of public participation it needs to be genuine public participation. Their idea to date has been as Charlene pointed out they come and they have what we would rather disparagingly call a dog and pony show where their people come and give their position on things with no opportunity for the public really to interact and put forward their views and really have genuine open dialogue about these issues.

We also believe that now because the research that the board relies on is pretty dominantly funded by industry so has a real industry bias and that really needs to change. In order for the public to participate fully the public needs resources to be able to prepare for that kind of participation on an equal footing.

Renee Pelletier: You made a comment about advisory committees and the committees not being a solution. I'm wondering whether any of the three of you have experience sitting on advisory committees and whether you could speak to what your experience has been.

Unidentified: None of us personally have had that experience. However a member from the Clean Ocean Action Committee who runs a fish processing plant on Cape Sable Island, it has been in the family for generations. It's one of those Nova Scotian companies.

He has been a part of that and what he says about that is just that you go there, you have discussion and then you leave but with no commitment, no capacity to really influence the decisions that are made. We think that's flawed. Someone like that person should be an integral part of the decision making process.

Rod Northey: I'm trying to get a sense of recent EA's. There seem to be a few going on in Nova Scotia and Newfoundland involving these boards. I'm wondering if you have participated in any of those. Is there a reason? Is it that you're not (sic) aware of them and choosing not to participate or you're not even made aware they're going on?

Charlene Morton: We're not aware and the only thing we became aware of was the public consultation. There was a series of them on the south shore. They were advertised in the paper. We caught that. Having some background in research (inaudible) for misleading advertising and I thought the research presented, unless you

ask questions about the numbers put up on the posters, the context for those numbers were mixed and matched.

It could have been numbers for exploratory and active wells in one number, then the next one about accidents, it might just be an exploratory well. The next number might be both of them and often some other location. Unless you asked the questions where those numbers came from, it went rather nicely.

The other thing we were involved in was the municipality of the district of Lunenburg invited the board to present to them and it was pretty patronizing. They said they had research but it was too complex for us to understand and nonetheless we were impressed with the councillors who one by one stood up and said they were very concerned about their fishing communities and that the board didn't seem to offer any reassurances that their fishing communities would be protected. Those are the only two cases.

Rod Northey: How recent was that consultation involving the municipality?

Charlene Morton: In the spring. Then the MODAL (ph) meeting was in July I think.

Rod Northey: If you were able to just pass on some documents that would give us the third party information on those events that would be helpful to understand a little better what the specifics are. I'm trying to catch up with how this is all happening given that there are at least a couple of EA's going on right now and you don't appear to be aware of them even though you're very concerned about them. I'll leave it there.

Johanne Gélinas: Thank you very much for your participation. Pleasure having you. My boss is telling me we should have a short break. We will start at 3:0 if you don't mind. Thank you.

PETER DUINKER, DALHOUSIE UNIVERSITY

Peter Duinker: If my presentation were to have a title, it would be the following: 'Back to Basics: Few Mysteries Remain for Improving Environmental Assessment Processes in Canada'. And I know the folks behind me who know me will be saying ah, it's Dunker again. We've heard all that stuff for 30 years or so. What new will there be? Well, I think the reason for reiterating so many of these messages is that in 30 years we haven't made much progress as far as I've been watching.

In 1981 I began my career of scholarly work on environmental assessment. And over those 35 years I've published dozens of papers and given dozens of conference and seminar presentations on environmental assessment. I've taught environmental assessment in both full-term and short courses probably 50 or 60 times. I've reviewed numerous environmental impact statements, I've contributed to the scientific evidence base for several environmental assessments, and I've served three times as a panel expert in federal environmental assessments. And when I contemplate the costs and benefits of environmental assessment in Canada over the past four decades, I usually become depressed. It's not just because I'm a professor and I'm supposed to become depressed, but it's because I see continued decline in the condition of many valued ecosystem components. I think that's happening because we still have not found the appropriate ways to adjust our decisions on account of those valued ecosystem components, decisions that run all the way from personal, everyday decisions through municipal development through major projects, all the way to provincial and national policies and programs.

Now, environmental assessment processes have doubtless made a positive difference for many ecosystem components in many circumstances, but it could become much more effective with a suite of adjustments. The adjustment needed range across all the themes the – identified by the expert panel, and perhaps broader. But in this short presentation, I'll highlight some that are currently on the top of my mind. I've organized my thoughts against the five major themes that you put in your instructions to presenters. And in each one, I'll choose one of the questions that you put.

So environmental assessment in context. What the panel wrote was: It is important that Canadians and indigenous peoples trust that environmental assessment processes in Canada are fair, robust, based on valid science facts and evidence, including additional – indigenous traditional knowledge, and will protect the environment. So your question two is what outcomes do you want federal environmental assessment processes to achieve in the future. Well, to put it simply, I want federal environmental assessment to secure, to the fullest extent possible, a sustainable, long-term future for all of Canada's air, water, soil, the lithosphere, and native biota. Well, that may be too much to expect from environmental assessment alone, and indeed we have other tools, such as environmental protection and species-at-risk legislation. However, I think we must do better in securing the sustainability of valued ecosystem components across Canada.

Your second theme is planning environmental assessment. And I quote: "There are also provisions that provide the Minister of the Environment and Climate Change with the authority to establish a committee to conduct a regional study to assess cumulative effects at a regional scale. Regional studies provide for a more comprehensive analysis of potential impacts in an area and help to inform future environmental assessment decisions." So your question four was under what

circumstances should environmental assessment be undertaken at the regional, strategic, or project level.

I told you about the beginning when I began my scholarly career in environmental assessment. That was a study done with Gordon Beelands (ph) back in – published in 1983 at Dalhousie University. And as far back as that, our research revealed that environmental assessments for project-level decisions were unable to guide development well from an environmental perspective if they were not undertaken in the context of higher-order environmental assessments and regional plans. So even back then, environmental assessment practitioners were calling for regional and strategic assessments. Canadians have been assured that, as a matter of policy, the Government of Canada undertakes strategic environmental assessments when warranted by the environmental gravity of policy and program decisions, but these are usually confidential. In my opinion, it's high time to daylight federal strategic environmental assessment and bring public scrutiny to the strategic environmental assessments undertaken.

Switching now to regional environmental assessments, they're extremely rare so far in Canada, possibly because they could be overwhelmingly expensive, possibly because we have no legislation requiring them. We need to see these as challenges, not excuses, for not doing them. As my professor colleagues John Sinclair and Meinhard Doelle and I have pointed out in a new paper, the search for cumulative effects on valued ecosystem components, which we argue are the real effects on ecosystem components, is impossible at the project level when that is the only level where they are examined. So regional environmental assessment is a necessity for the long-term sustainability of many valued ecosystem components.

Your third topic is the conduct of environmental assessment, and I'll jump straight to your question three. How can environmental assessment processes be improved to ensure a timely yet thorough process has been conducted? That really opened up the scope of my presentation, but I've chosen five topics to address here just with a short statement. Public engagement: broad engagement from project inception onward is needed, and it needs to search for a social license, mutual learning, and deeper insights about the sustainability of valued ecosystem components. Let's look at the concept of alternatives, one of many disappointments for me in environmental assessment. If we want to take—the – alternatives to be taken seriously, then we need to set up the process to examine them seriously. And if it turns out that the proposed alternative and its absence are sufficient, then we need to accept that and move on. Scoping of environmental components in an environmental assessment has long been a theme I'm interested in, and I note that some of the more recent scholarly literature on scoping continues to ask or push for the same direction we were pushing for in 1983. We need to examine fewer valued ecosystem components, which is a search for focus, with deeper analysis, which is a search for strong insight. Effects prediction: We need to use the strongest tools available, analyze uncertainty formally, and set up predictions in a testable format.

On significance determination, I had no interest to examine this topic again after looking at it some 30 years ago, but the environmental assessment panel for the Deep Geologic Repository asked me to help the panel come to some judgment as to whether the proponent had done much of a job in that environmental assessment on significance. And it was my view that the proponent hadn't, and that the proponent should go back and do it all over again. I was very pleased to learn that the panel said OK, proponent, go back and do it all over again. And my examination of what the proponent did is that it was a much better job. So I would argue around significance to avoid all categorical schemes and combinatorial algorithms to judge significance. And I would even suggest – and this may require a little bit of additional thought – to keep significance determinations out of environmental impact statements and lodge it in the EA report of the responsible authority, where I think it would have a much better chance to be done well.

My fourth topic is decision and follow-up, and I'll go to a favoured theme of mine in your question five. Given that environmental assessment decisions are made in the planning phase of proposed actions, how should these decisions manage scientific uncertainty? So I see science as a set of systematic procedures for uncertainty reduction. And in advance of development decisions, scientists use predictive models to explore the possible ranges of ecosystem component responses to decision alternatives. Now, they know full well that the resulting predictions are uncertain, and that that uncertainty can be characterized. So during and following implementation of developments, scientists use empirical data, which is gathered through monitoring, to reduce specific uncertainties in their predictions and the models that produce them.

So in answer to the question, a development decision associated with an environmental assessment is informed partly by a package of scientific information including predictions and uncertainty characterizations. The decision should include requirements on appropriate parties to engage in further scientific work, which is monitoring, to reduce those important uncertainties. Rigour is needed at all stages of the science: first, in system characterization and model building; second, in preparing predictions and uncertainty analysis; third, in monitoring to address key uncertainties; fourth, in the comparison of predictions with the monitoring data to uncover divergences; and fifth, in rebuilding of the models based on the new knowledge. And that, I argue, is the essence of adaptive management. So therefore, a strong implementation of adaptive management is, in my view, the best approach to managing scientific uncertainty, and EA decisions need to make it happen.

My final point comes under your fifth topic, public engagement—involvement, and the question is what do you think meaningful, effective, and inclusive participation in the environmental assessment process looks like. My answer here is as much a practitioner answer as it is a scholar answer. I do have about 35 years of experience designing and facilitating participatory processes for a wide range

of resource and environmental issues and problems. These include, among others, open houses, workshops, formal/informal meetings, town halls, field exercise, formal negotiations. And I've also participated in formal environmental assessment hearings. And in my professional opinion, hearings are the least useful form of public engagement. I favour workshops, field exercises, and informal but semi-structured meetings as by far the best forms of public engagement in environmental assessment.

In closing, I have a couple of offers. The first might be a bit tongue-in-cheek, but Madam Chair, you did offer – or you did suggest something about cutting and pasting to a previous presenter, and I would welcome you to cut and paste anything you want from my presentation into your final report. No, actually, the serious offer is, if there's anything I've talked about here that you'd like elaboration on, I'd be more than happy to do that during the time you're underway, and to provide various elements of the literature to back that up. Thanks very much.

Johanne Gélinas: Thank you very much. So we have that on record, that we can cut and paste some of your thoughts. Thank you very much. I have two questions for you. I will start the ball. The first one, do you think, with all what you have seen and your experience, that the proponent should continue to do the impact – environmental impact assessment study?

Peter Duinker: We laboured over this very question back in the late seventies and early eighties, when environmental assessment was being worked out for the – at the first time, and there was literature that confirms that worldwide the concept of self-assessment exists. I think we can make a lot of progress at project-level environmental assessment, even if proponents still have responsibility to undertake the fundamental scientific work and the prediction—preparation of predictions. Where it gets, among several areas potentially, it gets a little bit rhetorical is in the significance determination because there is a vested interest by a proponent to find no significant adverse environmental effects. And that's one reason why I suggested to move significance into the other portion of environmental assessment, which is the preparation of the EA report by the responsible authority.

Johanne Gélinas: So do you think that will address also the trust issue?

Peter Duinker: I think there are examples, without me naming names, of proponents and environmental assessments where the level of trust between proponent and stakeholders is very high. And that's under a scheme where proponents undertake the environmental assessment. So yes, I think it's possible. It would be an unimaginable upheaval to turn our environmental assessment process upside down and say OK, now it's not being done by proponents anymore, it's being done by somebody else. I haven't given that enough thought to be able to say with confidence whether I thought that was a good road to go down. It would be an upheaval of environmental assessment process.

Johanne Gélinas: If we can ask a professor to do some homeworks, that might be something you may want to give a little bit of thought into, and then get back to us. My second --

Peter Duinker: I'd be gladly – I would gladly receive your written request for an answer – a more fulsome answer to that question so that I don't forget it when I leave here.

Johanne Gélinas: Will do, trust me. The second question I have for you, we have been puzzled a little bit – and we still have our own homeworks to do – to understand how does it work in Nova Scotia here, the EA process. We heard a little bit earlier today by the – Miss Mitchell, if I'm right, that there were some substitution at the provincial level to do an impact assessment under CEAA. Can it be possible?

Peter Duinker: I'm not sure what you mean by substitution.

Johanne Gélinas: It's the province who will do the environmental impact assessment process on behalf of the federal government. Does that work like that here?

Peter Duinker: I'm unable to say. Joint environmental assessments I think are common here, but --

Johanne Gélinas: OK.

Peter Duinker: -- I'm unaware of any where the federal government just says OK, province, you take it.

Johanne Gélinas: Pure substitution. OK.

Peter Duinker: Yeah. But – but I'm saying that based on a high degree of uncertainty.

Johanne Gélinas: OK. And we tried to understand also if the Offshore Petroleum Boards – but the board in Nova Scotia, Canada-Nova Scotia – is doing environmental impact assessment as we all know them, to your knowledge.

Peter Duinker: Yeah, I'm sorry, I can't (crosstalk) --

Johanne Gélinas: You cannot? OK. Thank you.

Peter Duinker: No.

Johanne Gélinas: Other questions?

Renée Pelletier: I have two questions also. The first, just picking up on one of your last points about formal hearings are the least useful form of public engagement, I'm wondering how you address the concern people have raised at wanting to be able to cross-examine evidence, wanting to cross-examine the proponent and test the evidence. How would you address that concern if we were to do away with public hearings?

Peter Duinker: So I didn't say to do away with the hearings. What I said was, from my perspective, it's the least useful. And if we need the hearing format for this whole business of cross-examination and pub—formal public record and so on, then maybe we do. But when we see the hearing as the centrepiece of public engagement, we're probably missing out on a whole bunch of other more – way more productive and actually more fun for—I mean, it should – it should be enjoyable. It – you know –

Unidentified Male: (Off microphone): Public hearing and cross-examination isn't fun? (Inaudible).

Peter Duinker: No, I've been there, and I don't want it.

Renée Pelletier: OK, so this isn't my second question yet, but just picking up on this. When you – so could you talk a little bit more about what you envision in terms of workshops and field exercises? You know, who are the players in these workshops? What – what's happening in them?

Peter Duinker: I don't know if there's a very good record for the South Canoe Wind Farm provincial environmental assessment, but I do know personally the people who were involved in looking after all the public engagement for that process. It was a provincial environmental assessment. The rules around formal public engagement at the Nova Scotia level are quite different than at the federal level. But from what I understand, that was an exemplary process that lasted over about a year, and it was mainly a process to engage local stakeholders and residents and find out what's on their minds around the development, with a huge amount of engagement by staff of the proponent with the people in a variety of formats.

Renée Pelletier: That's great. Thank you. So now to my second question, this was in your discussion on the conduct of an EA, in talking about scoping of environmental components, noted you said that your recommendation would be to examine fewer. And I'm wondering if that's – and you note it's for a search for focus. Do you say fewer because you figure, you know, with the amount of time there is, you just don't have the time to do an in-depth look at more than a few? I'm curious as to why you would say fewer.

Peter Duinker: I say fewer for two reasons. One is that, no matter how you cut it, there's a finite amount of energy, people, time, and so on to undertaken an

environmental assessment. If I had to make a choice between breadth and depth, I would choose depth every time. I also say focus is needed because we often spend precious energy and pages of EISs on stuff few people care about. And so if you look at some definitions of the environment, the most ridiculous one, in my opinion, is the Government of Ontario's definition of environment in the Environmental Assessment Act. There is nothing excluded in the world from that definition of environment. And having looked at the environmental assessment system in Ontario in the last year, I've come to understand that the Government of Ontario expects a proponent to look at everything. And I just can't imagine how a look at everything gives us much insight into some of the things that are at the top of people's minds, which need far more engagement attention and scientific attention.

Renée Pelletier: Thank you.

Johanne Gélinas: Doug?

Doug Horswill: So picking up that same theme, how do you decide which the fewer are? You don't want to miss anything of significance, so how --

Peter Duinker: Yeah, so --

Doug Horswill: -- what kind of screening process are you talking -- or whatever you're talking about?

Peter Duinker: I would implement two complementary approaches to that. One is a first sieve that would be a kind of a technical approach. If you want to put everything in the hopper and then start to pull things out of the hopper soon because you just can't imagine a connection between the project under assessment or the policy under assessment and the environmental component, then you kind of let it go immediately. The second is to put the surviving environmental components to the -- kind of a public interest test and have conversations about these things with the stakeholders. And if it means that everything comes back into the hopper, well, the process hasn't been very effective. But I -- I feel pretty confident that not everything would come back into the hopper. If somebody said to me all species are important, I would ask them about black flies and mosquitoes and smallpox virus and so on. So not everything is equally important in the environment.

Doug Horswill: Right.

Peter Duinker: And we have technical tools for determining what should float to the top, and we have political tools.

Doug Horswill: So that's what -- and then -- and you do envisage a public participation consultation exercise at that point?

Peter Duinker: Absolutely.

Doug Horswill: Yeah. OK. In terms of the significance point, it's an interesting one, put it in the EA rather than the EIS, and therefore move it to a different set of hands. In those new hands, do you have any thoughts to elaborate about how that significance test is applied by the – within the frame of the EA? Is it again political science and common sense?

Peter Duinker: Well, there's a lot of that in it. And I don't use the language of test; I use the language of determination. And so maybe the – there'll – it's a long and a short word for the same concept. But the literature helped me frame helpful words around this when I was working with the Deep Geologic Repository Panel. I suggested to the panel that anybody who's doing a significance determination use – needs to use what I called reasoned argumentation. And that is in the literature as an approach. And it's not a calculation the way the proponent in that environmental assessment had originally made the significance determinations. So there is ample guidance, I think, in the scholarly literature on how to do a significance determination with integrity. And whether it's – whether we choose to leave it in the proponent's hands, to put it in the EIS, and then maybe we need to charge the responsible authority also to engage in another determination of significance using a reasoned argumentation approach.

Doug Horswill: The last question that I have for you is – relates to the notion at the point of decision and after, when – should – should extensive conditions be placed in a – in a decision on EA? Should they be left to permitting? How do those two link in your mind, the actual permitting under an app versus environmental assessment and conditions imposed in each?

Peter Duinker: So I'm not sure I quite understand the distinction. To my understanding, an approval under environmental assessment regulation is a permit. Or it's the first permit.

Doug Horswill: Well, if – if – for – let me – let me be more specific. There's an approval, let's imagine, in this Project X under EA, but then they need a Fisheries permit or they need a Mines permit from a province, and each of those could have conditions. Is there any thoughts in your mind about that rationality or coordination of those two?

Peter Duinker: Well, there would certainly – well, one would not want to see strong rubs between the environmental asse—conditions in an environmental assessment and other regulatory permitting processes. Perhaps the best I can do is offer you an example where this worked extremely well, in my opinion, in a bizarre environmental impact assessment, and it was in Ontario in the late eighties and early nineties. It's called the Class Environmental Assessment for Timber Management in Ontario. And the – as you know, Ontario has a board, and the board's decision – the

board renders decisions, not advice to government. And in the board's decision, which was a huge decision with great implications, there were something like 115 conditions. Now, I'm sure the board checked all those conditions with a whole bunch of the other agencies that have jurisdiction over environmental matters. But their Ministry of Natural Resources' response to that – those 115 conditions was an enormous improvement in the way forest management is done on the Crown lands of Ontario. So I feel very comfortable with extensive conditions in a – in the federal government's response to an environmental assessment.

Rod Northey: Yes, thank you. So let's actually start with that last one, which is interesting. So the Ontario Timber Management Class A board decision, unlike a panel, made some decisions. So what's the structure, if you could put on the record for us, if you were involved in this, just for our assistance, of that board? It's picked by the province, the decision making? Do you know much about its background?

Peter Duinker: Here's what I think I know about the Ontario Environmental Assessment Board. It is a standing board with nominations. There might be 15 or 20 people who are nominated to the board, and they are inactive until called into action. When that board started in 1988 there were three members. A legal scholar was the chair; a former politician, and another person. And after 18 months the board chair resigned, and then the two people carried on with that board through to the very end in 1994. So that – the rendering of the decision was made by two people called – the board has the same name whether it's the full panel of eligible members or it's a sitting board.

Rod Northey: I think it's now called the ERT or the Environmental Review Tribunal. Or do you know anything about that?

Peter Duinker: No.

Rod Northey: OK.

Peter Duinker: Not – not close to that.

Rod Northey: Alright. I've got a few questions just to understand. So the Chair asked you a bit about the project EA and the science done by the proponent, and I think your – I've understood your answer. But at the same time, earlier you had spoken to us about cumulative effects really not do—being doable by a project proponent. So let's, if we could, just get a bit more from you on what the better EA is that does cumulative. And I think you suggested it was regional, it's done rarely. I mean, I've read your submission. What's the way forward, if you have a way forward, for us to deal with regional EA? And my related question, if you don't want to give us the full array, is who does the regional EA.

Peter Duinker: I got involved in 1998 or thereabouts in the response to the Government of Canada around the Diavik Mine, which at that time was a comprehensive study. And the group of us got together and said that we thought that should have been a panel review and not just a comp study, and that's all well and good, but the most exciting part of the findings of this small group of kind of independent reviewers was that the right way to go about cumulative effects assessment in that case would be to do a regional – a big regional study. It could be bounded as a geologic province or whichever way you want to cut it that government would pay for – would organize and pay for, or probably multiple levels of government. And then the thought was that, when a proponent comes along with a project, the proponent needs to buy a share of the cumulative effects assessment, rather than being asked to do it. So if it costs government ten million or \$20 million to do a really good regional environmental assessment laced with cumulative effects understanding, then proponents buy their share, so government recoups its costs, and then proponents simply update the little bits and pieces of the cumulative effects assessment that their project would require to be done. Their project may invalidate the assumptions made in the regional one. So all they need to do is change those assumptions, update the thing, and then they see whether they fit in a regional development pattern.

Rod Northey: Have you gone far enough in the regional piece to work it through in relation to your own framework of the VECs and how that gets used? And your VEC framework is a – is a quasi-scientific approach and pathways and all of that, with some measurable outcomes, inputs, etcetera. Is that the same kind of path you're advocating for regional assessment? Is that its value, or is it different in your view?

Peter Duinker: No. On first blush, the immediate thinking would be that a valued ecosystem component approach is totally appropriate and highly essential, no matter what level you're doing environmental assessment on. If environmental assessment should meet goals to sustain elements of the environment, then we have to identify what those elements of the environment are, and usually we use at least partly our expressions of value to identify what they should be.

Rod Northey: OK. I'm still going, Madam Chair. I think you made a quite deliberate choice in your submission to focus on the bio-physical environment, and CEEA and federal EA have generally followed that path as well. But one of the things that we're asked expressly to deal with here is, including indigenous people, but just basically all social impacts. And so what's your th—comment on that? You've picked a narrower frame. Maybe you could start there and then explain, because I think we're receiving a lot of input that that narrow frame is actually a problem for better EAs under federal EA, and I would – I know you have a long history with this one.

Peter Duinker: So many of the provinces do not exclude social impacts, and they don't seem to have an issue with including social impacts in their environmental assessments alongside the bio-physical. I've long thought it bizarre that the only time we bring up socioeconomic things in our federal one is if they are implicated through the

pathway of bio-physical valued ecosystem components. Social impact assessment is not really a mystery. We know how to do social impact assessment. The literature is abundant with advice on how to do that, particularly with two approaches: one called a technical approach, where – same as bio-physical assessments, people who know about social responses to various kinds of drivers would be engaged; the other is a participatory approach, where the people you expect to be affected are part of the process of determining what those effects will be. There have been experiments doing both and seeing how they differ. As it turns out in those experiments, they are very different, which suggests to me that both are needed. And so I would argue that social impacts should be on the federal environmental assessment agenda.

Rod Northey: And be – and just one further twist to that is, again, a fair amount of input already received is sustainability should be the core to this, and when you do sustainability, most people put it as pillars of environment, social, and economic. Environments basically would see it as you've just described social. Do you have a view? And I'm just, again, seeking your input. Is that sustainability framework of three pillars some way you don't encourage? Do you see a weakness to that, do you see strength to that? I'm just curious, again, because it's different than where you've taken us, and I'm trying to see perhaps why it's different.

Peter Duinker: Well, maybe it's because I've spent my entire career messing around with bio-physical environmental things that that's where my head is drawn. I have long felt comfortable with the three-pillar model of sustainability, although the more I talk with colleagues who think about it more than I do, they suggest that it's a worn out kind of interpretation. The way I have cast the concept of sustainability – and I'll bring it – suck it back to the bio-physical realm – it could be interpreted as simply as to make sure that the things that matter to us in the environment are in good condition. It's all about their status and condition. And if we erode that condition, especially a long way, that – that's clearly not what sustainability is about. Sustainability around renewable resource systems pretty easy to figure out; sustainability around non-renewables is much more difficult to come to grips with.

From the standpoint of environmental assessment, frankly, I think the economy'll look after itself. And it's notoriously unpredictable because of the people influences and the global influences on the economy. So I'd prefer to see environmental assessment focus squarely on the bio-physical and the social dimensions, which are often excluded in – would be excluded in many development decisions if we had no process at all.

Rod Northey: OK. Let me just see. I had a couple of more asterisks. I just want to make sure. Oh yes. The geological survey piece in your significance, is that – I assume that's on public record. Is that available? I'm just curious if your --

Peter Duinker: What?

- Rod Northey:** -- advice to that panel --
- Peter Duinker:** Sorry. What – oh.
- Rod Northey:** For the --
- Peter Duinker:** Yes, indeed.
- Rod Northey:** -- geological survey --
- Peter Duinker:** Yeah.
- Rod Northey:** -- your input to that panel.
- Peter Duinker:** Yeah, my intervention is available on the CEAA registry.
- Rod Northey:** OK.
- Peter Duinker:** If you can't find it there, I can provide it.
- Rod Northey:** Thank you very much. Thank you.
- Johanne Gélinas:** So I can make one promise. You will get few questions. Thank you very much for your contribution (crosstalk).
- Peter Duinker:** The promise back is that I will answer them. Thank you.
- Johanne Gélinas:** Looking forward to it. Thank you very much for your time.

NORVAL COLLINS, CEF CONSULTANTS

So now it's time for me to call – I think it's Mr. Collins. Phew! I have it right. Welcome. I understand that we just got your presentation, so we'll just take a minute to... Please go.

Norval Collins: (Off microphone): Thanks very much. Thanks for your interest as a panel in environmental impact assessment and climate change. I'm happy – will be happy to answer any questions you have. I have a Master's in land use planning, and I've conducted resource-based environmental impact assessment across Canada and internationally for over 40 years. EA experience has included marine projects, including all phases of offshore petroleum – microphone's on? OK. Do you want me to start again? Alright. Sorry about that.

Thanks, Panel, for your interest in environmental impact assessment and climate change. Be happy to answer any questions you might have. I have a Master's in land use planning, and I've conducted resource-based environmental assessment across Canada and internationally for over 40 years. And I've argued with Peter many, many times. It's great fun. EA experience has included marine projects, including all phases of offshore petroleum exploration and development as well as –

[TECHNICAL DIFFICULTIES]

-- of subsea cables and pipelines. Terrestrial projects have included power plants, landfills, highways, mines, dams, bridges, and pipelines. In addition to CEAA-based environmental assessments, I've completed strategic environmental assessments jointly for DFO and Parks Canada, and for the Canada-Nova Scotia Offshore Petroleum Board.

In 1987 I started my environmental planning company called CEF Consultants. Corporate experience in climate change began then in 1994, when CEF completed a federal-provincial funded analysis of policy tools available for combating greenhouse gas emissions in Nova Scotia. This project examined global experience with the efficacy of command and control economic and educational tools to look at climate change. In the latter 1990s I became a member of the C-CIARN Advisory – Atlantic Advisory Board. In 2002 CEF was a founding member of ClimAdapt, a private sector-government network developing adaptation measures for climate change. I continue my involvement through the Environmental Services Associations Maritimes, working on a pan-Atlantic climate change trade initiative involving the Green Climate Fund.

As part of ClimAdapt, I led a team to develop a guide to incorporate climate change into the impact assessment process, and was lead researcher for a case study application of the guide funded by the Canadian Environmental Assessment Agency. CEF developed an award-winning poster on climate change presented at the International Association of Impact Assessment in Marrakesh in 2003, and followed up with presentations and workshops at the Canadian Institute of Planners' national conferences in Halifax, St. John's, and Vancouver. I then developed a guide for incorporating adaptation into land use planning, and used this guide in evaluation of Halifax Regional Municipality's 2006 regional plan. Presentation at provincial conferences in Nova Scotia and Manitoba followed.

In 2004 I made a presentation to a newly-formed climate change team at the World Bank at Adaptation Day held in Washington, D.C. At a meeting with the head of environmental safeguards at the World Bank, we jointly supported the critical role of environmental assessment in identifying climate change impacts to the Bank's climate change team. Discussions continued with the World Bank and other IFIs and NGOs, but we were generally ahead of our time. Incorporating

impact assessment as a tool to quantify climate change impacts was not a hot product. However, in 2005 and 2006 in Canada, I was a key team member in a strategic environmental assessment of options to deal with substantive coastal change in North Rustico, PEI, one of the few applications of CEAA related to climate change. The report's only recently been made public.

I want to comment in two areas with respect to the Canadian Environmental Assessment Agency and the environmental impact process. With regard to the CEAA agency, as the lead agency, it should have responsibility to set minimum standards for environmental assessment in Canada and to conduct research into EA in Canada to support both consistency in approach and global leadership. In 2004 CEAA's funded – CEAA funded ClimAdapt to complete a research project related to incorporating climate change into the EA process. Research, especially into climate change aspects of EA, is essential to keep the process meaningful, to avoid EA becoming a bureaucratic process of crossing Ts and dotting Is.

A key point in this regard is that EAs attempt to view project impacts over the lifetime of a project, however we now understand that the environment is changing over the same period. Valued ecosystem components may change over time through the action of climate change as well. For EA to be useful, it must at least consider our knowledge in relation to the area and timeframe of project impacts as well as the type of climate change impacts involved. We have made little, if any, progress in updating the EA process, except for questioning carbon emissions that are too small and uncertain to be meaningful. Balance is needed in the process to stay focused on the issues that matter, requiring better guidance around climate change, both in terms of mitigation and adaptation.

Second, I want to comment on the changes to the Fisheries Act that also affect the intent of environmental assessment. Federal assessments since 2012 have only concerned themselves with the direct impacts on fish of commercial, recreational, and aboriginal importance. This means, especially in deep water areas off the Scotian shelf, where both BP and Shell are conducting major exploration projects, these EAs no longer mention the deepwater fish that primarily live there – lantern fishes and others. These relatively unstudied species go unmentioned because they live in waters deeper than we can fish, and not because profound impacts on their abundance or distributions may not occur as a result of these less-studied environments. While our understanding of some of these environments limits our ability to quantify impacts, our silence on primary components of the ecosystem at risk does not live up to our responsibility to manage extended economic zones off shore. At risk is our claim to exploit these resources and reserve them for future benefit.

A few years ago I interviewed people whom I considered to be global leaders in environmental assessment as part of a study for the Nova Scotia government. These interviews included people with backgrounds at the World Bank, the International Finance Institution, and in a South African government agency. They

agreed that – that environmental assessment is intended to provide sufficient information to decision makers to allow them to make informed decisions on how to minimize the environmental cost of a project that we deem acceptable environmentally—economically. Frequently in the review process additional economic benefits are identified. To do environmental assessment, we need to examine the environment holistically, and to be able to consider impacts realistically over the life of the project, not just in today's world. Today we're far from that goal and moving in the wrong direction. Thanks for your time.

Johanne Gélinas: (Off microphone). If a proponent tomorrow has to factor in our Canadian policy on climate change into his project, and let's go a little bit further: it turns out that there will be major GHG emission related to the project, what do we do?

Norval Collins: I guess there's answers to that. I don't believe that impact assessment is a policy forum. I'm a planner. I don't think that impact assessment is our primary tool for planning and setting priorities in terms of things like emissions. So –

[TECHNICAL DIFFICULTIES]

I have trouble believing that we're going to go into a project and not have some idea of what this project is doing and why it's doing it. Can I just say my experience is, for example, in the offshore where we're developing hydrocarbons, we know that we're developing hydrocarbons. We're – it's not a surprise to us that there's going to be emissions associated with the project. And yet we focus on things like what are the emissions from the flare that might or might not be needed as a safety measure on the offshore.

Johanne Gélinas: But then how do we reconcile a Canada-wide objective in term of greenhouse gas emission and a project which will contribute significantly to those emissions?

Norval Collins: I – as I understand it, we are working on mechanisms to get provincial, territory, federal agreement in terms of carbon systems. I mean, that is beyond environmental impact assessment. As I say, we have to understand what impact assessment does, and too often we're trying to make it do everything. And I don't believe that's what it does. So it – it can be useful to document emissions from a project. It can be. But my experience is that, for example, when we're dealing with – just think of – I worked in 1996 on the Sable Offshore Energy Project, which was developing natural gas resources. Now, we knew that that obviously led to emissions at the end users, but we had no control over the end use. You don't know, for example, whether that natural gas is going to displace coal-generated electricity. You have no control over that aspect of it. So we ended up with requests to estimate the emissions from the ships that were going to service the offshore platforms, when you knew that it paled in comparison to anything that was associated with the project. So there's decisions that are made about whether or not the project goes ahead, whether it is a project that we

want. That's set in policy. It's not up to the environmental assessment of projects to do that. That's my thought.

Johanne Gélinas: Rod?

Rod Northey: I just want to follow up a little bit because I thought your first point was that there should be standards set by the agency. So what are the kinds of examples of standards that you would like to see if we're not going to cover climate change, just to leave that alone for (crosstalk)?

Norval Collins: No, I didn't say you weren't supposed to cover climate change. I just don't think that climate change means --

Rod Northey: So what --

Norval Collins: -- I didn't mean at all that it was a thing that was focused on emissions.

Rod Northey: What kinds of standards are you thinking are appropriate for putting inside the EA process, then?

Norval Collins: Well, I mean, we've been talking -- Peter, the panel was talking about standards in terms of how do you determine significance, what are VECs, how do you do the process, how does it work, how do you do -- how do you do --

Rod Northey: So you'd like to see something that's binding, then, by the agency. Is that what you meant by a standard?

Norval Collins: Well, I think right now we have a number of agencies that are responsible federally for environmental assessment. I know you know that, so I know that you know that there's the Mackenzie Review Agency, there's -- and you -- there's the -- the NEB, there's CEAA. So there's -- there's different agencies. But there's no one who's providing any guidance to how EA is done. All I'm trying to say is I believe CEAA used to be that agency. It used to provide some idea of how environmental assessment is done in Canada that the other agencies would at least look to. Currently there's none. So everybody's doing their own.

Rod Northey: OK. I just want to make sure I understood—stand you. Sometimes we talk today -- our jargon may change, but sometimes talks today -- we talk today about best practices, and sometimes we use, in contrast to that, standards. A best practice is a guidance document that you could choose to not follow, and a standard is guidance you must follow. Which -- what do you mean?

Norval Collins: Well, I think both. I said minimum standards.

Rod Northey: OK.

Norval Collins: So there should be something that – what constitutes an acceptable environmental assessment, and what constitutes it's something that – I mean, can we come to some kind of agreement? CEAA used to provide – it used to be a flagship agency that we could look up to.

Rod Northey: OK. Have you any thoughts you've heard, if you've heard some of the presentations today on this idea of regional assessment versus project assessment, and with your experience, have you any thoughts or guidance to offer us on what your th—regional assessment versus project, or how you see that?

Norval Collins: The – as Peter said, I mean, the primary motivation for it is to look at cumulative impacts, and cumulative impacts are always incredibly difficult to assess. So there's some – there's some advantage to doing a regional assessment to try to grapple with what the cumula—it's hard to make it generic to all kinds of projects. Again, I don't – I think we have to be careful that we're not trying to make environmental assessment a planning tool – well, the – the planning tool to do our regional planning, when in fact we could do planning. And I just want to say, for example, you probably aren't familiar, but there – there were issues in Cape Breton in relation to oil and gas exploration. And then there was – there was a review I guess chairperson set up and a review conducted because there was no clear policy to actually use in an assessment.

Rod Northey: OK.

Norval Collins: And so you – I mean, you have two different things going on, but an environmental assessment is looking for some kind of policy guidance upon which to base its – its (crosstalk) --

Rod Northey: Are you thinking is that the Sydney tar ponds assessment you're (crosstalk) --

Norval Collins: No, it wasn't Sy—it was oil and gas.

Rod Northey: OK.

Norval Collins: So it was a – it was a Cape Breton oil and gas forum.

Rod Northey: OK.

Norval Collins: So I mean, frequently we just don't have the policy guidance, and EA is – is not a tool to do everything.

Rod Northey: OK. Thank you.

Doug Horswill: Well, your discussion just moments ago on your Sable Island example and the issue of emissions of the project rather than emissions from the project itself rather than the consequence of the project, like the use of the gas, for example, that led me to wonder whether you were thinking that that whole question of evaluation against climate change standards and goals and policy of a government could be done either before or outside in some fashion of the environmental assessment itself.

Norval Collins: I think it's – I think it's very difficult. I just – I used that example to – because it's a case where there's an obvious large difference when you're trying to do an environmental assessment and wondering about the emission from a supply vessel that's going to a rig in comparison to the lifetime production of an offshore gas project. Like, the – the one can – is infinitesimal. And so you have to ask yourself how much effort should I spend on trying to – because you can do it. That's what computers do, that's what models do. And you can generate thousands of pages of tables on all this stuff that is not really relevant. I think Peter mentioned as well, like, we need environmental assessment to focus on issues that are important and provide decision makers with some value in terms of how they're going to decide to move ahead with a project.

But I did want to – I did want to say that you just sort of opened the door previously, but the question of the value of having proponents do environmental assessment. Like, there's – my experience is that there's huge value from environmental assessment to proponents because you're doing the environmental assessment as the project's developing. I mean, that's how it becomes efficient. And it - it's a huge value to the proponent as well as to everybody else. So I mean, I think it's important to understand that.

Johanne Gélinas: (Off microphone): Thank you very much. (Inaudible). Oh, they are separate. I thought they were all together. They come from the same environment but they are different. So I will invite the Environmental Law Student Society. So for the record, I will invite you to introduce yourself.

ENVIRONMENTAL LAW STUDENT SOCIETY

Mason Goulden: How are you doing? My name's Mason Goulden. This is Dan Vancleef (ph) and this is –

Carla Cichowska: Carla Cichowska (ph).

Mason Goulden: We're executives of the Environmental Law Students' Society, and we represent future environmental litigators from almost every country – or

every province in this country. We're the ones going to be working with, interpreting, and applying the laws that you'll be writing through this review.

And I just want to say it's not a secret that our environment that we rely on for our water, our air, our food, and our cultures is degrading at an alarming rate. Species are going extinct, our oceans are acidifying. Our air, our water, our lakes and our rivers are becoming polluted. Every year is warmer than the one before. Sea levels are rising, and fish are collapsing, from cod to Pacific coast salmon. Despite the hard work of many Canadians, we are not getting better; we're getting worse. And it's getting worse every single day.

Up until the last federal election, I lived the majority of my adult life under a government who seemed to do everything in its power to undermine what it meant to be Canadian as a steward of the environment and as a champion of human rights, and ri—seeming to risk our children's ability to have a sustainable, prosperous, and economic future. Nowhere is this exemplified more than in the changes that occurred from Bill C-38 on the Canadian Environmental Assessment Act. Our Environmental Assessment Act is broken. The (inaudible) activities list and discretionary triggering process is insufficient. The scope is too narrow, and the public is not properly consulted or given the chance to review or appeal the decision making process. Nothing but a complete rewriting of the Canadian Environmental Assessment Act is adequate or sufficient for present and future Canadians.

And first and foremost, the environmental effects of all projects involving the federal government in any way must be addressed, considered and documented. We can no longer limit the environmental impacts that we take into consideration to a designated project list. The regulations designating physical activities are inadequate if we have to – if we want to have a healthy and sustainable future. When it comes to projects in this list, it's necessary to have a panel review, a panel whose appointments are based on merits and expertise similar to human rights. Because if they are of national significance, we need experts who are willing and able to do what is best for Canadians. The power to decide if environmental assessment is necessary cannot be left to the discretion of people who are subject to political and economic influence. This is a topic that we will be discussing further in our written submission. But for now, I just wanted to highlight the fact that the idea that only projects on a designated list are the ones of national significance should be assessed is ignorant to the scientific reality that the cumulative impacts can have great and lasting effects on the environment.

I just wanted to address a comment in a previous presentation that there are things that no one cares about, and I just wanted to highlight that, and we should not forget that, when looked after the perspective of the people impacted by environmental degradation, all projects and all things are significant. Now, it – because it does not make any difference if our drinking water is polluted from one

source or from many when it's fed to our children. And it would not make any difference to the future how many acts led to the collapse of our fisheries.

Environmental impact assessments cannot be done in isolation of one another, and certainly cannot be self-assessments by industry or bureaucracies who have a mandate separate from the one in Section 4, Subsection 2 of the Canadian Environmental Assessment Act, especially if there are no binding guidelines on how to complete a thorough environmental assessment that make – that takes into account all relevant and accumulative factors. If each industry and each bureaucracy has a different method for how to complete an environmental assessment, there is no way of knowing if the environmental assessments are being done for the best interests of Canadians. Universal and binding guidelines must be implemented. How to complete an EA cannot be left to individual discretion. Currently, CEAA '12 is so restrictive in scope and broad in its requirements that it's little more than a data collection, gathering, and public relations process for federal regulators, most of which are not qualified to decide if a proposed project is the most appropriate way to meet our societal needs and ensure a healthy and sustainable environment.

As you know, CEAA '12 Section 19 is Factors Considered. It requires the consideration of cumulative environmental effects that may occur in connection with a designated project, but there is – but there needs to be a subsection within that list that includes factors that must always be taken into consideration. This assessment must include and have written within the legislation the impacts the proposed development would have on greenhouse gas emissions and its impact to climate change, all aquatic ecosystems, including freshwater, marine, and including areas beyond national jurisdiction, and terrestrial ecosystems look at their entirety. I'm just going to leave it to Dan to discuss our views on how that would apply to greenhouse gas emissions.

Dan Vancleef (ph): Thank you. One of the major challenges that has arisen out of CEAA 2012 is the inability of assessments to capture the cumulative impacts of development. As the assessment process has been streamlined, and the number of assessments has decreased, climate considerations have taken a back seat. There's been a growing recognition amongst the Canadian public that we, as a society, must take positive action to curtail greenhouse gas emissions and the impacts of climate change. Government must take a leading role in this effort. And for this reason, an assessment of greenhouse gas emissions must serve as a cornerstone of new environmental assessment legislation, reflecting Canada's commitments abroad and ensuring that environmental considerations drive responsible growth and development.

As part as our presentation today, we recommend that the environmental assessment process include: 1) an assessment of projected greenhouse gas emissions and their impact on the surrounding environment; 2) a consideration of how those emissions can be justified under Canada's international obligations; 3) the approach – the adoption of an adaptive impact management plan allowing proponents

to respond to changes in technology and environmental conditions; and finally, mandated consistent monitoring throughout the operation of the project.

In speaking to our first recommendation, an effective and meaningful environmental assessment process must mandate consideration of the projected greenhouse gas emissions associated with a proposed project and assess how those emissions fit within the greater context of Canada's international climate obligations. In considering projected greenhouse gas emissions, environmental assessment should identify the impacts of admissions and atmospheric pollution on surrounding biotic and human systems, identifying the potential threats to human health and environmental degradation associated with the proposed projects. These considerations are essential in ensuring Canada will be able to meet and maintain their international climate obligations under the UNFCCC Paris Agreement. Canada's international obligations must serve as a fundamental principle within the decision making process. These obligations must be at the forefront when considering any project that has the potential to impact the environment. Projects that will likely result in high GHG emissions must be looked at in light of these obligations, asking would this proposal help or hinder Canada's ability to meet its climate commitments while also serving other sustainability objectives.

In seeking to maximize efficiency, environmental assessments often neglect to consider the long-term, cumulative impacts of development. In forcing projects to reconcile potential greenhouse gas emissions with Canada's international climate obligations, long-term prosperity and sustainability are able to guide environmental assessments and decision making. Additionally, we recommend that the environmental assessment process should mandate the adoption of an impact management plan that identifies how these risks and impacts could be mitigated or avoided. This management plan must be adaptive, allowing for changes in operation as a result of unforeseen environmental impacts and future changes that may improve efficiency and reduce greenhouse gases. Furthermore, there must be adequate monitoring and a follow-up program to ensure emissions do not exceed the projected levels, and that the impact management plan is adequately mitigating these issues.

The continued monitoring identified within CEAA's general guidelines for practitioners must be incorporated into the legislation itself, requiring proponents to maintain accurate records of admissions associated with the operation of the project. This approach must be proactive, identifying potential issues that are not adequately addressed within the management plan. It must correspond with the precautionary principle. As new information and understanding comes to light, we must be able to adapt and – our development and industries to meet new targets that arise with new scientific information and technological developments. As these developments lead to innovations in human health and environmental protection, our environmental assessment process cannot remain static. It must be able to respond and adapt to change.

Furthermore, it must be highlighted that consistent monitoring throughout the entire commission of the project would produce a more effective regional and strategic environmental assessment process. This will allow the government to include data on the levels of greenhouse gas emissions and commute – cumulative impacts into future policy, plans, and programs. In adopting these measures, the environmental assessment process can be used as a tool to ensure Canada meets its international climate obligations while promoting growth and responsible development.

In summary, as a society, we have realized the impact of our actions on the surrounding environment. In recent months Canada has taken major strides in presenting ourselves as a leader on the global stage. In maintaining this image, we must lead by example through innovation and progressive policy. Taking action and mandating the consideration of greenhouse gas emissions within our environmental process sends a strong, essential message to the world, one that recognizes the importance of long-term decision making and the urgency under which we need to act to correct for the issues that plague our current models of development and decision making. I thank you for hearing us today, and please consider our proposal and ensure our environmental assessment process no longer serves as the platform for irresponsible and harmful development projects.

Mason Goulden: So we as Canadians need an Environmental Assessment Act that is progressive at the same rate as our scientific information and our societal values. This is your one chance. This is it. This is – might be the only chance we as a generation get to change our Environmental Assessment Act. And if we don't protect the ecosystems that we rely on for our food, our water, our air, and our lives, everything that we've ever done in human rights, in democracy, in our economy will be meaningless. If we don't do it now, it might be too late. It might be too late for us, it might be too late for our children. And that is the end of this part of the presentation.

Carla Cichowska: I can also go straight into it and we can do all the questions afterwards. OK. So I'd just like to say that we, the Environmental Law Student Society, support the 12 pillars of the Environmental Summit from the West Coast Environmental Summit. And as young people, as people that will see the impacts of these changes over the next 50 years, I'd like to say that an environmental assessment review could not be more important to us because we are the next generation, who will be dealing with the consequences of these changes. We will be the ones seeing the impacts and living with the consequences of your decisions that you make. The review of the environmental assessment is our chance as a country to leave a legacy that will make a positive impact on the present and the future of this country.

We believe that there should be a complete overhaul of CEAA 2012. The old assessment process was largely inadequate and mandated under a corrupt leader and government. I implore the Panel to start from scratch, based on

expertise and from what you hear from the public as you complete your consultations this year. CEAA 2012 is fundamentally flawed and needs to be rebuilt from its foundations. We need to start again from the very beginning to ensure that all Canadians have a healthy and sustainable future.

One problem with CEAA 2012 was the inability to appeal any decisions made by the Minister or the review boards. Decisions were made without reasons and with a complete lack of accountability or transparency. The turnover for project approval was too fast, there was inadequate public consultation, and there was no chance for anyone to appeal. The new Environmental Assessment Act should include more opportunities for not only public consultation but appeal decisions on – appeal decisions on whatever is made. Not only should there be opportunities to appeal throughout each step of the approval process, but there also has to be a chance to appeal based on continuous monitoring. And Mason will talk about the judicial review that we'd like to see from the process.

Mason Goulden: As much as we think we need to rewrite the Canadian Environmental Assessment Act, the regulations designating physical activities has some value for it's a list of projects that have historically been more inclined to cause negative effects on the environment and on our societies in general. And one of the main issues with this is that projects on this list will get an initial and final stamp of approval. There may be some conditions, but there is no ability for public consultation and further assessment during the rest of the process and the life cycle of the project, no matter the changes to our scientific understanding or technological developments or societal values.

To ensure Canadians have a healthy, prosperous, environmentally sustainable future, there must be checks and balances written within the legislation. We understand the need for efficiency in environmental assessments at the small business level, but when it comes to projects of national significance, there must be a chance for parties with a vested interest in the effects of the project to hold industry and government accountable. This cannot be done in a way that handcuffs the economy or floods the courts with unsubstantiated actions either. We're proposing that the government legislate within the Canadian Environmental Assessment Act a means to review environmental effects of projects listed within the regulations' designated physical activities based on five-year timelines, as well as the government legislate mandatory continuous monitoring of environmental effects in an open and transparent manner, and submit those environmental impacts annually to the appropriate board.

This monitoring process must be completed based on detailed and precise guidelines that are universal across industries and regulatory bodies. And if after five years after the initial approval, a person with a vested in—with a vested interest in the effects of the project can submit evidence that brings an air of reality to the claim that the project in question is not meeting the current environmental, socioeconomic, and modern health and safety standards, then that project can be up

for official review. And the onus would then switch to the person in charge of that project in question to prove that their actions are in accord with Canada's international obligations, our aboriginal treaty obligations, standards of best practice and technological innovation, and society values based on current scientific understanding. If these factors are not proven, there must be an authority to apply and enforce appropriate remedy, be that the introduction of new technologies such as cleaners on smokestacks, the rehabilitation of degraded land, the introduction of renewable energy and LEEDs building standards, monetary compensation, or straight-out injunctions.

A review of such – of this could happen in the courts, but it would be more equitable and just if it was brought to an environmental tribunal composed of industry and scientific experts, similar to the structure that we have in our human rights tribunals. It is our belief that this process model – that this process model would provide incentives for industry and government to ensure that their actions are continu—and policies are continuously in accord with all of our obligations and our understandings, and that we have legislation that adopts and is progressing along with Canadians' values and societal scientific understanding.

Carla Cichowska: So a fair and transparent environmental assessment review process is desperately needed because the process of dealing with environmental harms and cumulative impacts has been almost nonexistent in the past. Environmental class action lawsuits in Canada are extremely difficult to obtain. They are either abandoned at the outset or not certified by the courts, even if they do progress. Individual litigation can be extremely expensive and mentally stressful for everyone involved, especially when filing against large, multinational corporations that have a lot of money. Few people are willing and able to go through all that hassle. Even when an action is filed, people are usually forced to settle for inadequate sums and unjust remedies that do not even come close to repairing the damages that they faced. Getting big polluters to fix the damages after they have already occurred is extremely – is an extremely onerous process.

The EA processes need to include proactive measures that would help reduce not only environmental damage but minimize the wrongs and injustices faced by people who are victims of such environmental damages. It would give everyone a chance to consult on potential environmental projects, to gather sufficient expert evidence, and then appeal decisions that they feel are unfair or unjust along the way. This EA process may be the only way many people can contribute to the prevention of untold harm. A thorough and well done EA review process would also reduce the costs of not only clean-up and remediation of contaminated sites, but it would also reduce legal costs and displace the burden typically faced by communities where these projects take place and where this damage occurs. There will be less remediation, less pollution, and less money spent on health care and other costs, such as fewer legal costs. Proactive measures are always better than reactive measures, and will result in better outcomes for everyone.

I would like to thank the Panel for taking the time to listen to everyone presenting here and in other provinces across Canada. I believe great outcomes can come out of this process. Because this new environmental assessment review will likely affect many generations down the line, it is important to think about the future and what is best to the interests of all Canadians. Short-term thinking has gotten us into trouble in the past countless times, and making these decisions is hard now, but any investment takes a while to pay out. Making a good environmental assessment process now is an investment that will yield returns many times greater than what we put into them today, and it is definitely a worthy investment to make. So thank you again for taking the time to hear us out.

Johanne Gélinas: Thank you very much, and congratulation for having taken the time to present before us. I'm just curious. Have you just started doing that thinking when the Panel was announced, or it's something that you were working on for a while?

Mason Goulden: We kind of –

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-- on impacts of – on the environment and environmental litigation. So we – we are a society – yeah. So we're continuously working as a society for years, and we – we – like, for example, we're commenters on the Energy East Pipeline and we have been working on all sorts of other initiatives, so yeah.

Carla Cichowska: Yeah.

Johanne Gélinas: So you will be busy for quite a while.

Mason Goulden: Absolutely, yes.

Carla Cichowska: Yeah.

Johanne Gélinas: I will let my lawyers colleague asking you questions. Renée.

Renée Pelletier: Yeah, I'll start. So thank you very much, all three of you, for your presentation. Just a couple of comments – or questions. So to the point of needing to have checks and balances within the legislation, I think you had an idea around a five-year review, and if people were worried that there were issues with a project, that they could bring forth evidence, etcetera. I'm wondering whether you think of – one of the ways to deal with that concern might be in the terms and conditions and the monitoring that is currently required on projects, whether improvements to that, improvements to the monitoring requirements for example, could be done as – as a way to address your concern.

Mason Goulden: Yeah, I do think we could potentially improve this monitoring process. One of the issues that I see with that particularly is that within certain designated projects within the bureaucracy is that there's no essential guidelines on how to do an enviro--

Johanne G  linas: Speak closer to the (crosstalk) –

Mason Goulden: -- how to do an environmental assessment or – or like – or what it means to do a proper one and –

[TECHNICAL DIFFICULTIES]

So you're submitting this evidence to essentially the ether and the iCloud to the government, then no one's really processing that information, or like where's that going. So when you're having these monitoring processes, it needs to be open and transparent. All that information needs to be readily available for all the public and everyone who's essentially impacted. And then kind of the issue that I see with this is that if, say, I – I'm affected by such a project, then I don't – can't really just bring a claim. It's very difficult. So if it's open – if – if you're submitting these reports on a continuously and it's submitted to not only the government but also to the public to see, then it becomes these problems and it looks – some of it looks to be just not truthful, then after a five-year period, then you could put up a full – a full review of all of their – all of their impact assessments, everything that they've done, and to see if it is still in the best interests of Canadians. That's what I would say to that.

Dan Vancleef: And just to add to Mason's comments, the type of judicial review that we are advocating for really draws closer to the concept of adaptability. Monitoring is great, and I – you know, improvements in monitoring would be something that we'd be – be looking for in a new environmental assessment process, but we really need a process that can adapt to new changes and new environmental conditions. And the judicial review process is a way where citizens and interested groups could raise concerns that might not be currently addressed in the monitoring program. It's an opportunity to maybe critique monitoring as the project continues towards its completion. And I think it's really an aspect of the ongoing environmental assessment that we really need to take account for, and the full commission of the project rather than a single environmental assessment and monitoring that is based off that first environmental assessment.

Carla Cichowska: And I also think monitoring should be done by an arm's-length organization that is not affiliated with the company itself because a lot of times proponents, they are the ones that gather evidence. They're the ones that hire experts to do tests and do all of these different things, and that creates a lot of possible distrust because they are not sure if they are doing the process correctly and if it's unbiased. And so both the monitoring, the evidence gathering should be done by

people that are not employed or – not employed by the organization itself to ensure that proper testing is done and proper monitoring is done that's unbiased.

Renée Pelletier: You anticipated a follow-up question, so thank you.

Carla Cichowska: (Crosstalk)

Renée Pelletier: And I'll ask one more before I turn it over to my fellow panel members. To your point about requiring an appeal mechanism within the legislation, now, I recognize that CEEA 2012 does not have that in its legislation. Some – some Acts do. You mentioned that you – there's currently no ability to appeal a decision of approval. Although that's true, there's of course always the option of having a judicial – filing a judicial review application. So I'm wondering whether – like, why – why the – the need to appeal, as opposed to relying on a JR.

Carla Cichowska: So judicial reviews, especially if the decision is done by a Minister or someone in government, it is very, very difficult because they make decisions based on discretion, and that is very difficult to appeal because the court will place a great amount of deference to that decision. And so judicial review is almost impossible – or challenging their decisions on judicial review is almost impossible to yield an outcome that will change the decision because judges are very deferential. And so once it gets to that point, it is almost impossible to change that kind of decision. And so appeal processes along the way, not only do they ensure that a lot of money and energy is spent that, you know, will result in an overturned decision in the end. If they are done along the way, then you can anticipate problems and deal with them early on, and then not leave them all to the very end, where it is more probable that a decision will be allowed to continue and that a project will be approved just because so much time and energy has been spent along the way. So I think it's more efficient this way, and it also allows fairness and justiciability (ph) for everyone involved.

Johanne Gélinas: Thank you. Rod?

Rod Northey: Sure. Thank you. So appeal to whom?

Mason Goulden: Well, that's – it would be an independent body. So we're – sorry. We're sort of attempting to replicate an independent body that's similar to a human rights tribunal. So you have experts in industry standards being appointed by the Minister --

Rod Northey: So you would like an independent tribunal that hears appeals of environmental assessments? Is that (crosstalk)?

Mason Goulden: I most definitely would like that. And – and sort of like focusing on the projects within the designated regulations and activities list because they're of national significance, and plus, because they have that history of having

negative environmental effects. So not for every single project that goes through an environmental assessment, because we don't need them for federally funded projects that are putting basketball courts in the back of schools, but for these large projects that are trans-boundary in nature, that yes, it should be appealed to a tribunal-like board that is completely independent from industry.

Rod Northey: And is it an expert tribunal in your mind, then, too?

Mason Goulden: Absolutely, yes.

Rod Northey: And so who appoints?

Mason Goulden: Well, I guess it would have to go through the same mechanism or a similar mechanism as a human rights tribunal. So I imagine that the Minister of Environment would appoint it, or the cabinet.

Rod Northey: Alright. Interesting idea. So next question I have is, if you're dealing with something like projects that have long timelines, as you asked us to look at the long term, and we have international targets out there, you were using the word international obligations quite frequently. What are the international obligations right now that are affecting this?

Mason Goulden: Well, currently there are very few, but we have international obligations within law of the sea and then the Commission on Biological Diversity. But if Canada were to ratify the Paris 2012 agreement and we were to have that, then it's – it's more of like any sort of international obligation that we need to meet, be it social, environmental, or economical obligation.

Rod Northey: OK. So you're placing great weight on not just a promise but something that's actually formally ratified. Once you've done that, or Canada's done that, you say that has special status?

Mason Goulden: I would say that, yeah, that – that is correct.

Rod Northey: OK.

Carla Cichowska: We sh–

Mason Goulden: I would –

Carla Cichowska: Sorry.

Mason Goulden: Go ahead.

Carla Cichowska: We should also follow the basic principles that have been enunciated internationally, like the precautionary principle and the ecosystem-based management approach. Those should be integrated into the assessment process as well.

Rod Northey: OK. Thank you.

Johanne Gélinas: You have mentioned, if I'm right, that you have participated in NEB process, CEAA process. Am I right saying that?

Mason Goulden: We're currently participating in it, in a broken --

Johanne Gélinas: OK. Yeah.

Mason Goulden: -- process --

Johanne Gélinas: OK.

Mason Goulden: -- at the Energy East, yeah.

Johanne Gélinas: OK. I was going to ask you what are, according to you, the strengths and the weaknesses of both processes, but maybe we -- you will want to come back to us later on.

Mason Goulden: Well, we could come back to you and have it in our written submission, which would be totally appropriate. But one of the problems that I see, especially with the National Energy Board process is them being the National Energy Board approving environmental assessments, but also when you're looking at affected parties. So when we applied, we were applying for intervener status or commenter status, and that discretion is completely left to the Board on who gets to submit what evidence and who gets to cross-examine. I don't understand why that should be left to the people making the decisions on what information they should be having to bring in. They should be consulting all peoples who are in any way affected by the project, and then that -- bring that information and weigh it then, as opposed to deciding beforehand who -- whose opinion is valuable.

Johanne Gélinas: So should I understand that you will present to us a written submission?

Carla Cichowska: Yes.

Mason Goulden: By the deadline --

[TECHNICAL DIFFICULTIES]

-- yes.

Carla Cichowska: Yeah.

Johanne Gélinas: So that will be end of session. That's a lot of work for you to
--

Rod Northey: Pre-exam or (crosstalk).

Johanne Gélinas: Pre-exam.

Rod Northey: That's what (crosstalk).

Mason Goulden: It's a (crosstalk) process for us.

Johanne Gélinas: Thank you very much for your participation. So that will end this afternoon session, and we will resume at 6:30 to – for our evening of public workshop. So you are all invited to come. It's open. It's a different format. And you were saying, Professor, that workshop is one of the best way to gather information, and we agree with you. That's why we have organized those sessions. So whomever wants to come, call your friends if they have a view on EA, they are more than – than welcome.

Just in case we don't see you tonight or tomorrow, two things that I would like to bring to your attention. First of all, we will organize webinars to address specific question in the near future. Go once in a while on our website, but if we have your coordinate, you will be informed anyway. And we will address some very specific question, and we are looking for expert – expert in the sense that you have knowledge, you have a view on the topic. Also, soon we will have on the website also what we call the choice book, which is questions related to the one that we have in our discussion paper, where anyone would like to respond to those question is able to do so. I mean, it's an electronic document. So I invite you, and also to spread the word that this is – that will be available soon.

And one last word to say that tomorrow it's our indigenous group events. So in the morning, starting at nine, we will have presentations made by indigenous group, and also in the evening we have an equivalent of the workshop, what we call the open dialogue session, where you are also welcome to joins either as participant or observers. So thank you very much to all of you for your participation, and we look forward to see you tonight.