REGIONAL ASSESSMENT OF OFFSHORE OIL AND GAS EXPLORATORY DRILLING EAST OF NEWFOUNDLAND AND LABRADOR

Technical Advisory Group (TAG) Session on Climate Change September 17, 2019 QUESTIONS AND ITEMS FOR DISCUSSION PARTICIPANT INPUT FORM

Name and Affiliation:	Susanna Fuller, Oceans North _	
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- 1) Are there any particular information sources or analysis (such as climate change projections) that you think should be accessed and used in the RA?
 - All relevant information cited in the recently released IPCC report on Ocean and the Cryosphere, with a focus
 on the Northwest Atlantic should be incorporated. Climate projections should be included in the Regional
 Assessment
 - With regards to the impacts of climate change on any exploratory drilling activities, more attention needs to be paid to increasing storm frequency that could result in spills or disconnections of the drilling equipment.
 - While the RA does not cover active drilling and extraction, models anticipating the climate impacts and CO2 emissions from 1) exploratory drilling activities 2) potential extraction as a result of those drilling activities and 3) downstream impacts of the burning of the oil following its extraction should be included on a low extraction rate and high extraction rate basis. Ideally, the Regional Assessment would make some determinations regarding a threshold of extraction beyond which extraction has to either be mitigated or avoided based on downstream emissions.
 - The RA should consider an offset option / carbon neutrality option where extraction is permitted by proponents who have developed and submitted a reasonable and credible offset option. We recognize that this is concept is1) related to extractive drilling rather than exploratory drilling and that 2) there is currently no such regulatory mechanism. However, given that most oil and gas companies are rapidly expanding their overall energy portfolios, this could offer a creative option to maintain employment and royalty opportunities while supporting offsets and transitioning to low carbon economy. If such an analysis is outside the scope of this assessment, which we expect that it is, we would hope that the assessment make recommendations that are creative and a ambitious so that Newfoundland's offshore industry can begin to account for its contribution to NDC's under the Paris Agreement and ideally foresee measures that will be required to approach net zero emissions by 2050.
- 2) Are there any specific environmental phenomena or changes resulting from climate change that you feel are already having (or will likely have) an effect on the environmental conditions of the Study Area that should be a focus of the RA? In particular, any with implications for the potential environmental effects of future exploratory drilling activities in the Study Area?
 - Climate impacts should be viewed as cumulative impacts on the marine environment that can be exacerbated by an increase in industrial activity. For example, corals and sponges are expected to be impacted by changing temperatures, altered carbon flux to the seafloor as a result of climate induced changes to primary productivity (See IPCC SROCC September 2019 and references there in).
 - Any cumulative impacts of exploratory drilling will further impact marine biodiversity that may already be experiencing climate stress. In part, this is why we feel that seismic activity should be included in the activities considered as exploratory.
- 3) Are there any particular environmental components and conditions that will likely change over the course of an exploratory drilling program and which therefore require consideration in its initial and on-going planning and implementation? To what degree can such changes likely be anticipated and addressed in initial planning and design, or is an "adaptive management" approach required?
 - There are closed areas within the RA scope that likely will not change throughout the exploratory drilling project, however should be considered as an environmental component that influences where and how many exploratory wells are permitted.
 - All areas that are protected from fishing or specifically where bottom fishing activities are prohibited, should be avoided for any exploratory drilling. The purpose of the RA, in part, should be to determine not only the impacts of exploratory drilling but to recommend where drilling should and should not occur. If there is no scope to

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prohibit drilling in biodiversity hotspots that have already been scientifically determined and protected from industrial fishing activity, and where closure boundaries have been negotiated,

4) Do you have any suggestions around how the RA should consider climate change in its content and outcomes, including in the eventual recommendations of the Committee?

To reiterate points made above, the RA should be innovative when it comes to climate change considerations. To achieve these innovations – or at least changes to what has to date been the status quo for project based and strategic environmental assessments, the following ideas should be considered:

- 1. Designating areas where exploratory drilling is not permitted to take place, particularly those already protected by sectoral bodies, both within and outside the EEZ so as to reduce cumulative impacts of industrial activity on biodiversity hotspots.
- 2. Consider the development of a carbon offset program for proponents that can include offsetting emissions predicted from exploratory drilling and then be expanded to emissions from active drilling as well as downstream emissions resulting from the oil and gas products. Proponents could financially contribute to offsetting (for example: contributing directly to the production of renewable energy in NL; establishing carbon storage projects including reforestation; funding place-based conservation programs that can help to achieve climate resiliency. This concept is based on "polluter pays" but could be done creatively in ways that benefit the NL economy or natural climate solutions directly, instead of indirectly through only contributing through royalties.
- 3. With regards to consideration of Indigenous knowledge and potential impacts on Indigenous rights, any contribution to climate change and GHG emissions through any phase of oil and gas development, should consider both short term and long term impacts on Indigenous communities and rightsholders within Newfoundland and Labrador, and the land claim of the Labrador Inuit in Nunatsiavut. Similar offset programs could be developed, where a proponent would have to invest offset funds into renewable energy projects in Indigenous communities, as an example.
- 4. Calculation of downstream emissions could help to establish a threshold beyond which exploratory wells are capped, pending significant findings. There is no scientific or economic rationale behind 100 new wells and as such, thresholds should be established based on climate change evidence and low risk scenarios of further GHG emissions.
- 5. Calculation of long-term value of the resource could also be important. For example, while there is an urgent need to rapidly move off fossil fuels to other energy sources, there maybe an economic argument to only allow for a limited number of exploratory drilling over a longer term. It remains unclear, without stronger NDCs under the Paris Agreement whether or not the value of oil and gas reserves will increase or decrease with decreasing fossil fuel use. Economic modelling could be undertaken, particularly with the socio-economic assessment now included in the new Impact Assessment Act to look at oil and gas extraction based on a long term decline in value and a long term increase in value, to accommodate for declining use but also potential increased value if extraction is to be further limited.

We recognize that all these are relatively new ideas and have not been considered as part of Canada's assessment process. However, it is clear from recent reports on climate change, including that delivered at the United Nations General Assembly by United In Science, which states that in order to avoid catastrophic impacts of climate change, global emissions reductions must triple beyond current commitments. It is imperative that the oil and gas sector is part of this change and is contributing to a variety of solutions as the there is a gradual and planned decline in fossil fuel extraction, so as to avoid economic collapse.

5) Do you have any other input or recommendations that you would like to provide to the Committee on this topic?

Given that this RA is the first of its kind, and has already established a more innovative process than other assessments, particularly with the commitment to an online GIS platform and making all information publicly available as well as establishing technical advisory groups, this innovation and departure from the status quo should extend to the recommendations of the assessment panel as well. Considering the ideas above, and committing to an actual world

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class regulatory system, rather than a stated one could bode well for Canada's oil and gas sector as demands to reduce GHG emissions grow. In Canada much of the focus has been on the impacts of the extraction of bitumen in Alberta, and less so on the impacts of offshore oil and gas extraction in Atlantic Canada. Knowing the economic importance of this sector in the short to medium term, particularly to the province of Newfoundland and Labrador as it struggles with the debt load of renewable energy projects, adjusts to an ever changing fishing industry, and manages an economy based on an aging labour force – there will be a need to establish a social license that is based on a new model of oil and gas extraction. To date, we haven't seen the regulator begin to innovate in such a way, despite numerous opportunities to do so. Proponents and regulators will face increasing pressure to identify actions being taken to reduce the impacts of oil and gas extraction on biodiversity loss and ongoing emissions. Proactive recommendations from this panel could help begin the transformation that is needed.

All comments received will be considered public and may be posted to the Canadian Impact Assessment Registry. For more information on the Canadian Impact Assessment Registry Terms of Use and Submission Policy, please consult https://iaac-aeic.gc.ca/050/evaluations/introduction?culture=en-CA#innovation. For more information on the Agency's privacy policies, consult the Protection?culture=en-CA