

# Final Report on Fundy Tidal Energy Environmental Report

## Opinion in Response

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We fully support the harnessing of an abundant, green-energy producing resource such as the Bay of Fundy. It is clear that in order to meet goals of increased zero-emissions power, opportunities like our high tides need to be explored.

Due to the extreme tides and flow of water into and out of the Bay of Fundy, tidal energy generation methods should be considered and possibly implemented to help reduce greenhouse gas emissions from electricity generation in Nova Scotia and New Brunswick. However, these options need to be given much consideration and study to determine where to place them so that they have a minimal impact on the ocean environment and any person who makes their living from the sea. Small pilot projects should also be implemented to better study tidal generation methods in the Bay of Fundy and fill in gaps in the information presented in the study.

“Can these technologies be developed without significant socio-economic impacts on fishers and the fisheries and on other marine and coastal resource users?”

Our greatest concern regarding increased tidal power generation is the displacement of traditional industries that share both the land and water that would be used by tidal power generating stations and associated infrastructure. Fishing has long been the sole source of income in many coastal communities on the Bay of Fundy, and currently, as indicated in the report, little is known about the direct impact of any potential method of tidal power generation on commercial fish stocks in the Bay. A project with the ability to produce a large impact on fisheries should not proceed without being able to predict and quantify the effect on the fishing (including shellfish) industry.

The fishery community represents a large group of people who will need to see information to reassure them that tidal power generation does not threaten their livelihood. It would likely be best if information was available and openly presented to this group early in the planning stages of such a project, to reassure that their interests have been addressed in the planning.

Persons working in fisheries should be encouraged to participate in site selection and voice concerns early in planning. Selection of sites less commonly fished commercially would obviously be best, assuming that these sites will not cause other, more severe problems. Also, information on the effects of auxiliary activities, such as maintenance work, fluid leaks/spills and increased boating traffic should be found and presented.

Aquaculture and other ocean harvesting operations should be included. These groups may be the best knowledge base for filling in information gaps in minimizing the impact on these industries.

The impact to the tourism industry should be considered as well by ensuring that the sites chosen for offshore power generation do not detract from the natural beauty or recreational opportunities of the Bay. Popular scenic views should not be disturbed by any above-water portions of the power generation units, or interfere with the view from valuable properties. Recreational fishing and sailing should also be considered.

The recreational issue could be addressed in much the same way as the commercial fishery; by asking for the input of interested groups such as recreational clubs that use the Bay (sailing, sport-fishing, boating, etc...). These groups would be an abundant source of information on recreational activities that would otherwise be difficult to find.

Overall, tidal power generation is an attractive option, and with involvement and input of the majority of interested groups it should be possible to implement, at least pilot projects, with minimized socio-economic impact. There is presumably a great deal of coastal water receiving very little use that could be producing power, and, with the help of interested groups, this space can be identified and farmed for power.

“Under what conditions should pilot projects be permitted?”

Any potential site for tidal energy generation should go through an extensive study to determine the possible environmental impacts associated with locating a tidal in stream energy converter there. Specific guidelines for determining these environmental impacts should be constructed and followed for each site. Since the Bay of Fundy also provides many people with a source of income, these guidelines should also ensure that time is

spent ensuring that an energy project would not significantly disrupt their way of life. It is important to note that an energy project would probably disrupt some people's way of life, but minimizing it should be a main priority.

Pilot projects should be kept small in scale and should be highly monitored to see any possible affects it is having on the surrounding marine ecosystem and anyone who makes a living in and around those areas. Systems and procedures should be in place to ensure that nothing from the structure is contaminating the surrounding area, such as lubricating oil.

Discussions with fishers in an area considered for a tidal in stream energy conversion unit should be started to help to determine where the best location would be, to minimize the impact on the local fishery. Having these people in favor of the project, knowing that it will not disrupt their way of live will make any project much easier to complete.

Site specific studies should be completed before construction to determine the best (least environmental impact) method of getting the produced power to shore and method to anchor the structure to the bottom. Minimizing the impact to the ocean bottom means the existing life there can continue with minimal disruption.

Further studies of sea creature behavior within the Bay of Fundy to determine the best location for the units need to be completed. Knowing that the units will not be in a migratory path or in a traditional mating area will help minimize any impact on ocean life.

Interested groups will need to demonstrate a clear understanding of possible environmental impacts and come up with procedures and plans to reduce these possibilities. As well, minimizing impacts of the local fishing economy needs to be a priority to help the project move along smoothly.