

A Submission to:

**Nova Scotia Department of Energy
Marine Renewable Energy Legislation**

Attention Dr. Bob Fournier

Submitted November 15, 2010

by Marke Slipp

for

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Heavy Current Fishers Association

Comments on the Marine Renewable Energy Legislation

Submitted to Dr. R. Fournier
c/o Nova Scotia Dept. of Energy
(via email)

from Marke Slipp
for the Heavy Current Fishers Association

Today is November 15th, deadline for submissions to the Marine Renewable Energy Consultation. Yesterday saw announcements of significant federal investment; \$20 million coming to Nova Scotia to help in tidal power development, \$11 million alone to put the undersea cables down to bring the electrical power onshore. It all sounds as impressive as the power of the tides to be harnessed from the Bay itself.

In other developments, the Bay of Fundy has been cited as one of the top contenders for the honour of being one of the New Seven Wonders of Nature¹. Both the Nova Scotia and the New Brunswick governments have been celebrating this at interprovincial gatherings, as well as at the Olympics earlier this year. Our natural wonder is, indeed, a very valuable resource in and of itself...without any industrial value put to it. This treasured public resource needs to be protected for future generations of Nova Scotians.

There has been much said over the past year about Nova Scotia's renewable energy plan, its development, the socio-economic spin-offs, the new targets this freshly minted provincial government has put in place. It is all very encouraging, all very optimistic, and there have been many words spoken about the precious nature of the ecosystems involved and health of the environment in general, as well as the protection of the same. One would think we were on the verge of a new world order. One would certainly hope this were so, in a positive sense.

Much has been said about the volume of water passing through the Bay, the great potential to harness this energy through the use of instream technologies, the use of waves to generate another form of marine renewable energy, or the use of tidal lagoons to capture the strength of the waters, and even the deployment of large, offshore windmills to harvest the constant winds that blow across the ocean surface. Great dreams and great opportunities; all requiring vast vision and mammoth effort to put it all in place. It is indeed, a large challenge and to do it properly will take an incredible amount of will and tenacity. But doing it properly is what's important; too many industrial activities have left only a few with the benefits and the others to clean up the mess left behind.

¹ <http://www.votemyfundy.com/>

And the concern of this commission, the task at hand, is to come up with legislation that helps the development of a safe, clean, economically viable Marine Renewable Energy plan to be put in place for the benefit of all Nova Scotians. I hope I can address this in a way that can make a small contribution, at the very least, to this challenging and complex process that is now underway.

After attending the MRE Legislation Public Forum in Wolfville on November 2nd of this year, The Heavy Current Fishers Association (HCFA) thought it best to put the concerns that our representative spoke to there down on paper, for you to include in your considerations, and to have on public record.

The HCFA has been following the tidal power developments for some time now. The livelihood of the HCFA members, and the well-being of the communities they come from will be strongly impacted by this development. Already there has been displacement some of the fishers from some of the richest trapping areas; those areas with the strongest currents, the same currents that fish migrate into the Minas Basin on, and the very same ones that the tidal test facility is using these days.

HCFA is on record² as supporting environmental and renewable energy initiatives. In the first submission made to the NS Department of Energy (DoE) in 2007, it stated “*members of HCFA are supportive of the development of clean, sustainable, ecologically friendly ways of generating energy for Nova Scotians*”. That which is good for the environment, specifically for the ecosystem of the Bay of Fundy, is also good for the fishing business, and the business of fishing for generations to come.

To that end members of the HCFA have participated fully with the tidal power developers whenever possible, sitting on community liaison committees, environmental monitoring committees, taking developers, academics, scientists and government officials out to the Bay of Fundy when required. HCFA began this process by sitting on the OEER’s SEA Stakeholders Round Table, providing input to the process as best as we were able. Our representative, Marke Slipp, was there when we were unable to attend due to seasonal fishing demands. Although the process was flawed (the Premier of the time making his premature announcement about the technologies and the test facility halfway through the deliberations) there was much to contribute and learn. We attended public forums, discussion groups, submitted responses to filed documents, and stayed abreast of all developments in this regard, offering the traditional knowledge we have accumulated over many generations of fishers when asked.

A background paper³ commissioned by the SEA and created by Jacques Whitford during this process noted that there was more *unknown* about the Bay of Fundy than there was currently known, so much research was still to be done. This continues to be the case. There is still a need for the establishment of some ‘base science’, a knowledge of what takes place in the area that tidal power is currently being developed in order to know what changes take place due to the introduction of this new technology to the area. However, the end result of the OEER SEA was a document which concluded that tidal power development in Nova Scotia should

² This [Petition to Government](#) is available at the through the OEER SEA site or through the DoE.

³ Report available through the [OEER web site](#)

“proceed with a cautious, incremental approach”, something that sounded reasonable enough at the time, but it is not the way the industry wants to proceed and there is every indication from their aggressive approach to this development that confirms this. Earlier this year the NB Business Journal cited a representative from MBPP as saying, *“2,000 megawatts of electricity could be drawn from the bay within five or 10 years - enough to power all the homes and industry in Nova Scotia.”* At the current level of technology this would see 2,000 turbines introduced into the Bay of Fundy over the next decade. Hardly the *“cautious, incremental approach”* recommended.

The Minas Basin is the spawning grounds, the nursery if you will, for a variety of marine life, from lobsters to salmon, from scallops to sturgeon, as well as many, many other species, large and small. An Environmental Assessment submitted to NS Environment by Minas Basin Pulp & Power (MBPP) for the newly formed Fundy Ocean Renewable Center for Energy (FORCE) stated that there were virtually no fish that they saw while investigating the area proposed for the FORCE test facility, the Minas. Of course, millions of fish from a multitude of species migrate through this area; it is *“the doorway to the nursery”* according to third generation lobster fisher, Mark Taylor, president of the HCFA. To have not seen any fish in the area means they weren't looking very hard, or they were looking in the wrong place at the wrong time. It was, at the very least, a convenient conclusion to have made.

The MBPP/FORCE EA also states that they sent scientists out in October of 2008 and asked them to look for whales while they were there, but there were none to be found. One has to suppose that engineers were directing this study, not marine biologists, as the whales that frequent the Upper Bay don't come to the area to view the fall colours but rather come here during the spring & summer migration periods to feed on the copious volume of fish and other nutrients in the area. One has to question how vigilant these studies were and what kind of due diligence will be carried out during the development of this industry. Thus far it doesn't bode well for the environment. [Responses to this EA are on record at the NS Environment library, and also available from the author upon request.]

Getting On With It

The background information for this document is as rich and varied as the Bay itself. And your task is to create legislation to enable a successful, safe, environmentally secure development of tidal power. And that is what we would like to see as well, even though we think small scale, community oriented tidal power would be the most effective way for Nova Scotians to realize the potential of the tidal power that exists in the Bay of Fundy. The industrialization of this resource is a risky endeavour, fraught with danger to the marine life that traverses the area most suitable to harvest energy from.

The idea that there will be an *“adaptive approach to development”* is likely the only way to approach an industry in its infancy, as noted in your Executive Summary of the Policy Background Paper prepared for the MRE Legislation for Nova Scotia. From the HCFA point of view, it would be adaptive to the demands of the ecosystem, not

necessarily only to industry, as these things are wont to do (i.e., “*intended to support marine renewable energy development technologies*”).

It is also noted that under **Planning** that the mechanisms to be considered have been downgraded from the previously mentioned “*compensation for affected industries (e.g., fisheries)*” to “**possible compensation**”. And the DFO won’t even allow that for its licensees. And so it goes. However, under **Economic**, it notes concern for the proponents “allowing them to have a sense of project security”. Nice for them, but why would they be any different for them than the fishers that have provided an economic benefit to Nova Scotia year after year, for the past century or more?

It is curious to see so much benefit being allocated to industry when they haven’t even begun to prove themselves capable of doing due diligence.

Case in point: Early last May, after a season of promoting Nova Scotia renewables around the world (Copenhagen, Washington, etc.) it was announced that the Nova Scotia Power Inc/OpenHydro turbine stopped sending data to the land station after a week or so in the water (deployed November 12th, 2009). A full five months passed before any announcement was made about this. No explanation has ever been given as to why this delay in reporting this anomaly took place. I don’t think that “proprietary information” would really be a plausible reason at this point.

Cut to: June 4th, 2010. A dead fin whale was reported floating around in the Minas Basin near Cobequid Bay. An article in the Chronicle Herald notes “Fishery officers want to find the whale to inspect it in an attempt to determine what killed it.” The Marine Animal Rescue Society (MARS) gives out their phone numbers, asking the public to call if they spot it so they can tow it to a shore where they can further investigate the cause of death.

Cut to: June 10th, the dead juvenile fin whale turns up on the shores of Tennycape, near Burntcoat Head. MARS investigated visually, but was not able to determine the cause of death as the whale was on its back, and the beach was such that the necropsy equipment could not be brought onto this shore. A representative of MARS comments on the young whales demise noting, “its death wasn’t natural and there may have been some kind of human interaction”.

Cut to: June 11th, a report from NSP and OpenHydro, after doing some video inspection of their device, says that there are two broken blades on their turbine in the Minas Passage. They speculate that it might have been ice or perhaps a submerged log that did it, but they wouldn’t be able to tell until the turbine is taken out of the water. Co-incidence, I suppose, and unfortunate for the tidal power developers, but this is part of why they wanted to have tests prior to commercial development.

Cut to: July 14th, the whale is lifted off the Tennycape shore by high tides and heads out into the Minas Basin. Mark Taylor calls in with the GPS coordinates as the whale passes by the Parrsboro/Five Islands area. Marke Slipp calls these coordinates into MARS in an attempt to get them or DFO to tow the carcass to an area where the necropsy might happen. No one gets to the whale, even though they know where it is. It floats out into the greater Bay. At least it will be hard to deny any more that whales come this far up the Bay of Fundy.

Cut To: June 17th, CBC reports that the dead juvenile fin whale has turned up on the shores of Halls Harbour, just below the home of one of the residents there. CBC investigates. MARS investigates. No one is able to determine the cause of death. No necropsy machinery can be brought in. The whale sits on the shore for over a month, creating a stink in the afternoon air, but there is no sign of the tidal power folks, no sign of DFO, the whole matter is left to rot quietly on the shores.

Dissolve to: Mercifully, for the residents there, the dead whale is lifted off the shore by a high tide in July and disappears into the Bay of Fundy somewhere. Case closed.

During this period there were a number of people contacted about the cause of death of this whale. A Municipality of Kings County councilor Dick Killam expressed great concern for how the whale might have got to his area. He stated to the CBC, *"All of a sudden, now we have a whale that's been sliced open by what? We don't know. And I think that has raised the concern and the fear of the whale possibly having contact with the turbine."*

However, there was no response whatsoever from the most recent industrial activity in the Bay—the tidal power developers, the FORCE test facility, nor their scientists. Why they would sit on their hands and do nothing is curious, but one is left to speculate. And much speculation did happen, but there was no proof of anything. It would presumably come under the category of “due diligence” for FORCE to investigate this matter. It is one of their stated purposes to monitor the impacts of their development on the ecosystem. Did they simply shrug it off as not one of their concerns? In fact, to have had a definitive answer would have been a good PR opportunity for them, but they didn’t take exploit it. Why not? Again, one is reduced to speculation about their reasons. Were they truly engaged in what has been expressed by one of their top scientists as *“a noble cause”*, they would’ve been on the case like stink on a beached whale. But they blew their opportunity to make it right.

An email was sent to a member of FORCE’s Environmental Monitoring Advisory Committee inquiring as to what had been done about this event. The simple courtesy of a reply was never forthcoming. When I met up with another member of the FORCE EMAC later, last summer at the launch of the small scale tidal power development in Westport, Briar Island, I asked how many dead whales are found in the Minas Basin on an annual basis. The response was that they happen frequently. This was a curious response when one considers the Environmental Assessment done stated there were no whales that ventured that far up the Bay (not to mention that there had been no reports of any beached whales, let alone juvenile fin whales, that were reported in the past decade). Perhaps the scientists should get together with the people preparing the reports and coordinate their message. It is certainly in conflict with the facts.

MRE Legislation:

So, in case it got lost, the whole point of the above story is to state that there needs to be an external regulatory body that oversees the protection of the ecosystems involved in marine renewable energy, be it close to shore or at the limits of our boundaries. Industry cannot be allowed to regulate itself, nor to determine how it will be regulated. Self-regulation by industry, regardless of its nature, never works for the citizens of the jurisdiction that permit them to develop the resources of the area. This has been proven time and time again.

The idea noted in the Environmental portion of the Executive Summary of the MRE Background Report notes, *“Before projects proceed to commercialization more information will need to be gathered regarding energy extraction limitations and possible cumulative effects from the addition of multiple marine renewable energy devices”*. This approach favours the industry and gives little credence to protection of the environment. To suggest that this technology be allowed to be taken to the limit suggests that it will go beyond that limit before being pared back. This approach is fraught with danger and has a total disregard for the ecosystem in question. A sensitive, aware and concerned external regulatory body would have the ability to know whether or not the devices have potential harm prior to getting to that point.

We have already seen the way that the powers-that-be have approached this concern: with benign neglect and a total lack of due diligence. The HCFA would like to see an integrated regulatory body that has clear legislation (with ‘teeth’) and is comprised of members of federal & provincial environmental departments as well as fishers, Aborigines, environmental NGOs, and community members. There is reason to think that there could be a seat for industry amongst these other members, but on a courtesy basis, subject to the discretion of the chair. But I suspect that is the least of your concerns. The task looms large indeed.

When at the MRE Legislation Public Forum on November 2nd, 2010, the only comment made by industry as to the type of legislation they wanted was to request the ability to expropriate land when deemed necessary. How like a poorly managed industry that is. This approach to legislation attests to the true nature of their concerns. Naturally industry wants a good return on their investment, or the investment of others, as they are not in this to serve a *‘noble cause’* but rather to make money. There has been no evidence to the contrary. This is why they are insisting on an aggressive approach to the development of marine renewables, tidal power specifically.

HCFA agrees that *“the legislative and regulatory framework for marine renewable energy should be consistent, clear, and robust”*. There are a variety of issues that will need attention besides the environmental protection aspect, but it is this aspect in particular that all the other ones hinge on. If the environment, the ecosystem of this vast and wondrous marine area is impacted adversely, the damage will be difficult to repair. Rather than the ‘put it in and see what happens’ approach advocated by industry, perhaps the *“incremental, cautious approach”* recommended by the previously commissioned Strategic Environmental Assessment should be incorporated into the legislation around this new industry in its infancy. Good, fair, and

solid direction given to industry at this point will help it to develop in a way that benefits all Nova Scotians, not just a handful of developers that want to exploit yet another of the Fundy's great & rich resources.

It is worth noting in this submission the absence of any references to tidal power or any other marine renewable energy in the department of Fisheries & Aquaculture's *State of the Coast Report*. This a background report in preparation of a *Sustainable Coastal Development Strategy*, or policy, regulating the use of Nova Scotia's coastal zone, a recommendation that arose from the Panel Review of Bilcon's Whitepoints Quarry development. It is curious why the renewable energy industry, as well as the aquaculture industry, was left out of this development plan. It is not much of a stretch to see that government is favouring industry over our environment in so many ways, something that needs reconsideration in the light of diminishing hopes for the future well-being of the generations yet to come. We are, after all, merely the stewards of these resources for our grandchildren's grandchildren. It is simply on loan to us.

In Conclusion:

It is true that marine renewable energy presents "*a significant opportunity for Nova Scotia*". There are some great benefits in the development of this resource, and at the same time, great risks that are being taken. The greatest risk is to an ecosystem already exploited, perhaps already to its limit. To take it too far could be disastrous to the coastal communities and livelihoods already supported by the Bay, not to mention the marine life that has existed here for millennia.

The story of the fin whale is a clear indication that the marine renewable energy industry, after two years demonstrating its abilities, does not have what it takes to steward the environmental resources of the citizens of this province into the future. They require strong leadership and a steady hand to direct them to where they need to head. Perhaps this Marine Renewable Energy commission has what it takes to do this: to develop legislation and regulations to govern the industry and protect our environment.

One aspect of legislation that needs to be considered is who is ultimately responsible. Over the past few years policy and responsibility seems to have gone from one department to another, from Energy to Environment, then Environment to Natural Resources to Fisheries & Aquaculture. Indeed, there are overlapping responsibilities taking place, and a body like the Provincial Oceans Network (PON) does not have the resources or the authority to act independently. When creating the regulatory body that will oversee this new industry it is important to establish both the responsibility and the authority within the same operation. However it is set up, it needs to be able to make decisions that are, as your document suggests, "*consistent, clear, and robust*".

As noted by the facilitator at the MRE Legislation Public Forum, this is a complex and difficult area to create new legislation for. Indeed, the number of jurisdictional elements alone make one's head swim. The task ahead for those working on it is large and challenging. I do not envy those doing the work that will be necessary to complete this task in a fair and equitable manner.

Today is also a day that OpenHydro spent trying to extract its turbine from the floor of the Minas Passage. Thus far they have been unsuccessful. It is just a year and a few days ago that the device was deployed, and almost a year, minus a few days, since it failed to send data to its owners. Somehow, someone has deemed this a success and a fourth berth has now been made available for yet another developer. When government and industry get into bed together there are some strange offspring that result.

I wish you good luck at this enterprise, although it will more likely take considerable intelligence and hard work to pull it off. Godspeed.

Sincerely,

Marke Slipp
for
The Heavy Current Fishers Association
Bay of Fundy, Nova Scotia