

SUPREME COURT OF NOVA SCOTIA

Citation: *Bay of Fundy Inshore Fisherman's Association v. Nova Scotia (Environment)*, 2016 NSSC 286

Date: 20161024

Docket: Hfx No. 453771

Registry: Halifax

Between:

The Bay of Fundy Inshore Fisherman's Association

Applicant

v.

Nova Scotia Minister of Environment, The Attorney General of Nova Scotia, representing Majesty in Right of the Province of Nova Scotia, Fundy Ocean Research Center for Energy Limited, and Cape Sharp Tidal Venture Ltd.

Respondents

Judge: The Honourable Justice Jamie Campbell

Heard: October 20, 2016, in Halifax, Nova Scotia

Counsel: David Coles, Q.C., Rilla Banks and Allison Reid for the applicant
Ryan Brothers for the respondent, Nova Scotia Minister of Environment and The Attorney General of Nova Scotia
Scott Campbell and Laura Rhodes for the respondent, Fundy Ocean Research Center for Energy Limited
Harvey Morrison, Q.C. and Douglas Tupper, Q.C. for the respondent, Cape Sharp Tidal Venture Ltd.

Introduction

[1] The Bay of Fundy Inshore Fisherman's Association is concerned about the placement of two test turbines on the seabed in the Minas Passage of the Bay of Fundy. The turbines are designed to test the effectiveness of the technology for generating electricity from tidal energy. The Association is not opposed to tidal power. They just want to make sure that the resource is developed in a way that doesn't damage the unique environment of the area.

[2] This motion is not about whether the experimental study of tidal power generation should go ahead based on the assessment of the information that has been gathered and studied so far. It is about a relatively narrow window of time, from now until February 2017. The question is whether the project should be prevented from using the turbines until the court deals with the judicial review of a government decision that authorized their use.

[3] That decision considered scientific evidence and the potential impacts on the environment. It set out the terms and conditions under which the testing could take place. The Association says that the decision was not reasonable. They say that if the turbines are deployed before the judicial review the damage will already have been done.

Summary

[4] The motion for a stay is denied.

[5] The Association needed to show evidence that the deployment of the turbines now would result in harm that would happen before the judicial review hearing resolves the legal issues and that the harm would persist after that. There are two kinds of harm that might be considered. The first is actual harm to the environment itself. There is no evidence of what kind of environmental damage would occur up to February 2017. And, there is no evidence as to whether or not any environmental damage would be permanent or temporary.

[6] The second kind of harm is the permanent loss of the opportunity to establish baseline data. Once the turbines are in the water, there will never again be a chance to study and document what the environment of the area was like before their deployment so it can be compared to the situation afterward. The logic of that

statement is irrefutable. Even if the turbines had no effect at all that would be the case.

[7] But that presumes that the study and documentation done up to this point has been inadequate. It also presumes that there can be reliable “baseline” data for a dynamic environment like the Bay of Fundy. As my colleague Justice Wood has said, the court does not act as an “academy of science” purporting to decide which of the experts is right or more right. The scientists differ on the issue of the baseline.

[8] The Association has not shown on a practical level how the deployment of the test turbines, with the required environmental monitoring, between now and February 2017 would prevent future studies from getting information needed to compare the environment before deployment and after deployment.

Context

[9] The Province of Nova Scotia wants to develop the tides of the Bay of Fundy as a source of energy. In 2007 the Province funded a Strategic Environmental Assessment to work on the development of a tidal energy project.

[10] The first stage of that development has been to establish a Demonstration Project to test emerging technologies within the special environment of the Bay of Fundy. The Fundy Tidal Energy Demonstration Project received Environmental Approval in September 2009. The approval involved consideration of a series of factors set out in s. 12 of the *Environmental Assessment Regulations*. That approval was subject to terms and conditions that were imposed by the Minister of Environment. The Association is not asking to have the approval of the demonstration project reviewed.

[11] Fundy Ocean Research Center for Energy Limited (FORCE) is a non-profit company supported by the Province. It has been given the responsibility to develop and manage the demonstration project. Cape Sharp Tidal Venture Ltd. (Cape Sharp) is a company that has been selected to install two demonstration devices in the area covered by the demonstration project. The devices are Tidal In-Stream Energy Conversion devices which for the sake of simplicity might be called turbines.

[12] The September 2009 Environmental Approval of the Project required FORCE to implement an Environmental Effects Monitoring Program.

[13] FORCE and Cape Sharp developed Environmental Effects Monitoring Programs that were subject to collaborative review among the federal Department of Fisheries and Oceans, Nova Scotia Environment, and the Environmental Monitoring Advisory Committee that was established under the terms of the 2009 Environmental Assessment Approval. There was a process of scientific assessment, monitoring and review that lead up to the creation of those Environmental Effects Monitoring Programs. The Environmental Effects Monitoring Programs were not the subject of a formal application for approval. They were submitted for review to satisfy the conditions of the September 2009 approval of the Project.

[14] The content of an Environmental Effects Monitoring Program is not set by statute or regulation. The approval by Nova Scotia Environment is discretionary. On June 20, 2016 Nova Scotia Environment confirmed that its review with the Department of Fisheries and Oceans of the Environmental Effects Monitoring Programs submitted by FORCE and Cape Sharp was complete. Nova Scotia Environment was satisfied with the management approach set out in the programs subject to detailed revisions that would flow from the recommendations of the Department of Fisheries and Oceans. The letter of June 20, 2016 is the decision for which the Association is seeking judicial review.

[15] That judicial review is scheduled to be heard on February 1 and 2, 2017. The Association wants to stay the June 20, 2016 decision until that judicial review is concluded.

Motion

[16] The motion for an interim stay pending judicial review is made under *Nova Scotia Civil Procedure Rule 7.28*. A three part test is applied. First, there has to be a serious issue to be tried. Second, the party seeking the stay must show that he or she will suffer irreparable harm if the stay is not granted. Finally, the court has to consider where the balance of convenience lies between the parties.

Serious Issue to be Tried

[17] The threshold on the first part of that test is low. It is still a threshold though. Considering whether there is a serious issue to be tried doesn't involve the court in detailed consideration of the evidence or the merits of the case. It is a question of whether there are realistic grounds that if established could persuade a judge to set aside the June 20, 2016 letter.

[18] FORCE, Cape Sharp and the Province of Nova Scotia all say that there is no serious issue here.

[19] The standard of review on judicial review of administrative decisions has to be considered. That's because when the matter is heard in February that's the standard the judge will apply. And here, that standard is reasonableness. That means the judge on the judicial review will not be deciding whether the administrative decision was correct or not, but just considering whether it was within the range of reasonable decisions that could have been made. So, at this stage the issue is whether there is an arguable case to be made that the decision was outside that reasonable range.

[20] The letter of June 20, 2016 was written to FORCE by Nova Scotia Environment, Environmental Assessment Branch, to advise that the review of its Environmental Effects Monitoring Program had been completed. The letter is part of an ongoing review process. It's not the first approval, nor is it the last.

[21] Nova Scotia Environment reviewed information provided by FORCE and consulted with the federal Department of Fisheries and Oceans. DFO had identified some "knowledge gaps" in the baseline information collected up to that time and expressed the need for improvements in the methods used for collection of that information. The Environmental Effects Monitoring Program filed by FORCE also acknowledged technological and environmental challenges that would have to be addressed through "adaptive management measures" to improve the understanding of the interaction between the turbines and marine life in the area. In a letter to Nova Scotia Environment dated March 16, 2016, DFO expressed the opinion that the adaptive management approach to environmental monitoring would work toward addressing the information gaps that the DFO scientists had raised.

[22] Adaptive management is used in circumstances where there is uncertainty about the consequences of an action. Requirements are relaxed or increased as information about those uncertainties is obtained. It seems to be a more incremental approach that involves cautiously moving forward while assessing and responding to new information as it is obtained.

[23] So, both DFO and Nova Scotia Environment were satisfied with the adaptive management approach. Information would continue to be collected after deployment of the turbines about their environmental impacts and the interactions between them and marine resources.

[24] The June 20, 2016 letter also gave directions about programs that had to be developed and implemented. Those directions track the issues that were identified by DFO in its letter of March 16, 2016. The letter notes that as information is received during the course of the Environmental Effects Monitoring Program there may be other measures required for improvement.

[25] FORCE was directed to submit a revised Environmental Effects Monitoring Program by January 1, 2017.

[26] Once again, the issue for judicial review would be whether the June 20, 2016 letter, approving the Environmental Effects Monitoring Program and setting out amendments that were required to be made, was within the range of reasonable outcomes.

[27] The Association says that it is not. Section 12 of the *Environmental Assessment Regulations* should have been applied to that decision. Section 12 requires the Minister of Environment to consider 11 classes of information including concerns expressed by the public and aboriginal people about the adverse effects or the environmental effects of the proposed undertaking. The Association says that in approving the Environmental Effects Monitoring Program the Minister did not consider public concerns or the other factors set out in the regulation.

[28] FORCE, Cape Sharp, and the Province all say that the factors set out in s. 12 of the *Regulations* had to be considered by the Minister only in making the 2009 decision to authorize the demonstration project itself. That authorization was made under s. 34 of the *Environment Act*, R.S.N.S. 1994-95, c. 1. Section 12 of the *Regulations* is tied to s. 34. Section 12 requires the Minister to consider the 11 classes of information “in formulating a decision under subsection 34(1) of the Act”. They say that the decision that the Minister was called upon to make under s. 34(1) was made in 2009. That decision is not under review.

[29] The decision made under s. 34(1) relates to the evaluation of the information provided by the proponent when registering an undertaking such as the demonstration project involved here. The Minister has to examine the information that is provided and then make a determination. That may involve, for example, the requirement for further information or environmental assessment. Section 34(2) requires that the Minister notify the proponent of the decision and the reasons for it within the time period prescribed by the regulations. That time period is 50 days after the date of registration.

[30] Section 12 applies to the determination made under s. 34 with respect to the approval of the project within that time period. The classes of information to be considered apply to the determination under s. 34 and to no extent beyond that. Once that decision is made s. 12 is spent.

[31] The Association says that when the approval was granted in 2009 it was with conditions. Any decision that relates to the adequacy of the fulfillment of those conditions should be with reference to the classes of information that had to be considered in the first place. They say that the approval with conditions is in effect a reservation of the s. 12 criteria. They carry forward through the proponent's response to the fulfillment of the conditions. The sufficiency of the proponent's completed conditions has to be considered in light of those criteria.

[32] There are no clear measurable criteria for what constitutes an acceptable Environmental Evaluation Monitoring Program. The approval in this case states that the program has to identify "appropriate environmental effects indicators" but does not explain what those indicators are or what the Minister needs to see. The Association says that it would be contrary to the purpose and intent of the *Environment Act* and the *Environmental Assessment Regulations* for the Minister to be able to approve an undertaking with conditions and then have no guiding principles for the evaluation of those conditions.

[33] That is a clear argument. It seems runs headlong into the wording of regulation itself. Section 12 specifically say that the classes of information to be considered apply to the approval under s. 34. That approval was granted in 2009 and if there were concerns about the lack of direction as to what constituted an appropriate Environmental Effects Monitoring Program that approval could have been reviewed because it failed to set out parameters for the assessment of the fulfillment of the conditions. The application of the s. 12 factors beyond the initial approval of the project and into individual administrative decisions assessing the sufficiency of compliance could result in a process that would be difficult at best.

[34] But, the Association does have an argument to be made at the judicial review in February. This is not an opportunity to prejudge it. Whether it appears convincing at this stage is not the question. It is whether there is a real case to be argued. It is a low threshold and it has been met here.

Irreparable Harm

[35] The second part of the test is whether the party seeking the stay has shown an immediate risk of harm that will occur before the case can be heard and that the harm is of the kind for which money would not be adequate compensation.

[36] That irreparable harm has to be established by evidence. Speculation of course is not evidence and nor are expressions of concern. There must be cogent evidence to support the conclusion that irreparable harm will occur. There has to be a high degree of probability that the harm will occur. Here there are very different views as to whether the use of turbines will adversely affect the environment of the Bay of Fundy. But that isn't the issue.

[37] It is important to precisely define what that issue is. It's not whether in the long term the installation of turbines will affect the environment of the Bay of Fundy or the Minas Passage. It is whether they will have irreparable impact if they are installed now and removed after the judicial review application is heard on February 1 and 2, 2017. The Association has to show that the installation of the turbines now would mean that the judicial review early next year would be too late because even if they are successful on the judicial review, the damage will have been done.

[38] Dr. Michael Dadswell is a retired Professor of Biology from Acadia University. He began studying the issues around tidal power in 1978. He has been involved with monitoring fish mortality at the site of a turbine in Annapolis Royal since 1987. Dr. Dadswell in his report provides information on what makes the Minas Passage area in the inner Bay of Fundy so unusual and so fundamentally important. He notes how damaging the ecosystem in that area would impact the fisheries productivity not only of the local region but also the entire Bay of Fundy and the east coast of North America. There is no doubt that the area is highly significant.

[39] Dr. Dadswell says that placing turbines that can harm marine organisms in the Minas Passage will damage the overall productivity of local and distant regions and harm the organisms that use the Passage for feeding and transit into the Minas Basin and back to the Bay of Fundy. He documents the wide range of species that could potentially be affected.

[40] Dr. Dadswell describes the nature of the turbine to be used by Cape Sharp. He assesses both the blade perimeter and the speed. He says that based on his

studies at Annapolis Royal there is a high probability that large organisms will be subjected to hydraulic turbine impact during migration through the Minas Passage.

[41] One of the main concerns appears to be the loss of the ability to obtain baseline data. Dr. Dadswell says that FORCE has not studied the temporal and spatial distribution of marine organisms in the Minas Passage with due diligence. In other words, they have not done enough to determine where fish and mammals are and when they are there. He says that FORCE should be required to obtain the baseline data before any of the turbines are deployed. Specifically Dr. Dadswell says that FORCE should have carried out at least one baseline study on the pelagic food chain productivity in the Minas Passage before the deployment of the turbines. He says that they should have acoustically tagged fish in Scots Bay or Minas Channel and monitored during inward migration on the flood tide. Dr. Dadswell says that FORCE should have conducted a long-term, sonar detection survey of large organisms at the test site before installation of the turbines rather than deferring to a monitoring program afterward. He says that FORCE should have conducted a population estimate of Harbour Porpoise in the Minas Passage before deployment.

[42] It is evident that Dr. Dadswell is not a proponent of the adaptive management strategy adopted by FORCE and approved by DFO and Nova Scotia Environment. But the assessment of that approach is not the issue.

[43] The report does not specifically address the impact of installation over the period from October 2016 until the matter is determined at the judicial review in February 2017. For example, Dr. Dadswell refers to fish that migrate twice each year through the Passage. May to October is the period when the main fish migration takes place. The report does not identify which, if any, fish migrate from October to February and if they do, whether the impact would be significant over one season. The report does not indicate whether, if the turbines were removed in February as a result of a court order on judicial review, the environment would not be able to recover over a reasonable time so that baseline data could be obtained.

[44] It could be argued of course that information of that kind is unnecessary. Once the turbines are deployed, logically, the ability to obtain baseline data is lost forever. There would be no way to ever know what the circumstances were before deployment and whether what was being measured at any time afterward was an accurate measure of the circumstances as they existed before. But any “baseline” obtained in a dynamic environment can only be a partial picture. It would be

difficult to know what other factors affected the stock being measured at the time they were being measured. The Association would have to present some cogent evidence of irreparable harm beyond the observation that no study performed any time after deployment could ever establish a reliable baseline for comparison purposes. It has to show that the effects of deployment from October to November would be practically irreversible over any reasonable time. Dr. Dadswell's report addresses his scientific concerns but it does not address that specific issue.

[45] Dr. Trevor Avery is a marine biologist and biostatistician specializing in animal population demographics and movements. Dr. Avery is also at Acadia. He expresses his concern about the baseline as it relates specifically to lobster and fish. He says that what is currently referred to as baseline is just a series of preliminary studies. A better baseline is needed and that should be used in conjunction with a long-term monitoring program. Like Dr. Dadswell, Dr. Avery has serious concerns about the adaptive management approach in these circumstances. While it may be effective, he says that it requires a better framework for monitoring, sampling and analysis. Dr. Avery asks the question whether post-deployment monitoring can be used as a baseline. He says that the question is unlikely to be answered easily with the current monitoring designs that are proposed.

[46] Once again though what the report does not address is whether a temporary deployment from October of 2016 to sometime in the spring of 2017 will have the effect of eliminating the opportunity to obtain those baseline studies that would be practically useful. A theoretically perfect baseline could only be obtained before deployment but the report does not address the extent to which the ability to obtain a practically workable baseline would be affected by deployment over the course of this winter.

[47] Based on those two reports the evidence does not establish that there is a likelihood of irreparable harm if the turbines were to be deployed now and remained until February 2017.

[48] There is another report. This one was requested by Cape Sharp from Dr. Graham Daborn. Dr. Daborn is Emeritus Professor of Biology at, of course, Acadia University. He has also been involved in the assessment of the implications of tidal power development in the Bay of Fundy since the 1970's.

[49] Dr. Daborn's opinion is focused directly on the "conditional" deployment of the turbines. He says that the conditional deployment of the two turbines

represents “an insignificant increase in risk” to fish, birds, mammals, and other organisms in the Minas Passage, will have “immeasurably small effects” on the dynamics of the water flowing through the Passage, and will have “no measurable or persistent effect on the ecosystem”.

[50] Dr. Daborn notes that it is impossible to define a true baseline condition against which to measure environmental effects of any development. In any event, the two turbines at the demonstration site will convert a fraction of the tidal energy into electrical energy. It is estimated that the turbines would result in a reduction of the flow through the Minas Passage of about 1%. Except in the immediate area of the turbines, where turbulence patterns will be changed, the energy extraction would have no measurable impact on the dynamic processes in the system.

[51] The cross section of the two turbines is about 200 square metres. That is about .13% of the cross section of the passage itself. The remaining 99.87% of the water will pass through the passage without flowing through the turbines. The turbines then will have an extremely small potential to harm fish or mammals.

[52] Dr. Daborn is of the view that the turbines would have extremely small effects on the Minas Passage and its environment. There are low probabilities of harmful encounters with marine life with the turbines. The uncertainties about the environmental implications of tidal stream development in high flow passages relates to the behaviour of fish and mammals that affects their likelihood of encountering the turbine. The only way to get information about those behaviours is to do experimental testing in the environment.

[53] The concern about the environment in the Bay of Fundy has to be taken very seriously. The potential implications of getting this wrong are massive. There are potentially catastrophic consequences.

[54] This motion is not about weighing those potential consequences against the benefits of tidal power development. It involves a much more specific question. That is whether the Association has shown that it is likely that harm will be done between now and the spring of 2017 by installing these two turbines and that the harm will be irreparable. It has provided evidence about the potential impact of a tidal power project but it has not provided evidence regarding the extent or the irreparable nature of any damage if the turbines are installed pending determination of the issues at the judicial review in February 2017. The Association has not shown that the temporary installation of the turbines would prevent the determination of baseline data to be used in assessing environmental impacts.

[55] That means that the Association has not met the second part of the legal test. While there is a case to be tried or a real issue to be resolved, it has not shown that deployment of the turbines will result in irrevocable harm to the environment of the Minas Passage.

Balance of Convenience

[56] While there is no evidence with respect to when Cape Sharp plans to put the turbines in the water and no evidence of any costs that will be incurred by Cape Sharp if a stay is granted, it is clear that the Minister has approved the use of the turbines. Other than this motion, there is nothing legally standing in the way of their deployment at the test site. There is a public interest involved.

[57] The Association has not identified irreparable harm or any loss or inconvenience that its members will incur if the stay is not granted. The reports of Dr. Dadswell and Dr. Avery do not indicate that over the period from October to February there would be significant damage to commercial fish stock that would impact the livelihood of the members of the Association.

[58] It is also relevant that this is not a situation in which approval has been granted without considering the potential consequences for the environment of the Bay of Fundy. There was nothing cavalier about the approach that was used. Scientists may differ on the proper approach to testing but this was not in any sense a rolling of the dice. There have been extensive studies. The deployment of the turbines with ongoing monitoring of their effects is part of the process of study and assessment. The adaptive management approach was not adopted as a business or bureaucratic convenience but as a practical response to uncertainty. Whether it is the right response remains to be seen.

[59] When dealing with the environment of the Bay of Fundy there is just no room for error. That looms large in any assessment. Its future goes far beyond any discussion of “convenience”. What is involved here however is a test site for which there have been safeguards put in place. The turbines can be removed during the 12 hour course of a single tidal cycle.

[60] This is not a matter for which the balance of convenience is a significant or deciding factor.

Conclusion

[61] While the Association has shown that there is an issue to be argued at the judicial review in February 2017 it is a case that pits the Association's broad interpretation against a more plain reading of the statute and regulation.

[62] Most significantly, the Association has not shown the risk of irreparable harm that would happen before the judicial review could take place.

[63] The balance of convenience does not favour either party.

[64] Even if a party does not meet the requirement for a stay a judge has residual jurisdiction to grant a stay in exceptional circumstances. In doing so the judge has to consider the principle that a litigant should not be deprived of the fruits of litigation. In the absence of evidence of the risk of irreparable harm *FORCE*, *Cape Sharp* and the Province should not be denied the benefit of proceeding based on the approvals that have been obtained.

[65] The motion for a stay is denied.

Campbell, J.