

November 10, 2011

Nancy McNeil
Regulatory Affairs Officer/Clerk
Nova Scotia Utility and Review Board
1601 Lower Water Street, 3rd Floor
P.O. Box 1692, Unit "M"
Halifax, NS B3J 3S3

Re: CI 41005 – Parrsboro Tidal Interconnection (P-511/ Matter No. 04185)

Dear Ms. McNeil,

Per the Board's request by phone on October 6, 2011, and additional clarifying questions received by email on October 24, 2011, this letter provides additional information regarding the Parrsboro Tidal Interconnection Project, submitted to the UARB for approval on June 8, 2011.

Background

In order to meet environmental standards established by the Nova Scotia government in recent years, Nova Scotia Power (NS Power) has been engaged in the addition of renewable sources of generation to its system. One such renewable project is NS Power's In-Stream Tidal Generator, developed and tested in the Bay of Fundy.

In September 2007, the Province of Nova Scotia (the Province) issued a Request for Proposals (RFP) for in-stream tidal demonstration projects in the Minas Passage. The RFP included installations in individual test berths as well as construction of the test facilities used to administer and study the tidal generators. In order to assess the potential of emerging in-stream tidal technologies, the Province developed a not-for-profit corporation, the Fundy Ocean Research Centre for Energy (FORCE), to own and operate the test facility now known as the FORCE Tidal Test Centre.

The successful proponents of the RFP were announced in January 2008 with NS Power identified as one of three qualified bidders. Accordingly, in 2008 NS Power submitted a capital application requesting UARB approval of the tidal turbine (CI 28678 – Renewable In-Stream Tidal Generator).

CI 41005 – Parrsboro Tidal Interconnect

In NS Power's Tidal Generator Application, reference was made to a required upgrade to the system adequate to connect the FORCE Tidal Test Centre to NS Power's electrical distribution system at the Parrsboro substation, to be submitted via a separate capital application. This interconnection project was considered at the time, and continues to be, separate from the overall cost of the Tidal Generator. Per the tables on pages 8 and 9 of the Tidal Generator Application, the overall cost to fund the project was \$12,667,000. The interconnection project costs stand outside of those overall costs.

In 2011, NS Power submitted a capital application requesting UARB approval of the interconnection project (CI 41005 – Parrsboro Tidal Interconnect). This project was not included in the Tidal Generator capital application as the initiation of the interconnection project is dependent on the timing of tidal generators coming online. With any emerging technology, the timing is uncertain. FORCE berth holders have experienced delays and it was only in late 2010 / early 2011 that one of the proponents proposed a firm schedule to have an interconnected generator in service by the summer of 2012. A cost estimate was not provided in the Tidal Generator Application as the scope and budget details of the project were not specifically identified at the time the generator application was brought forward for approval.

As stated in CI 41005 and subsequent IRs, the most economical alternative is the construction of an 11km transmission line connecting the test centre to the Parrsboro Substation. The project costs are \$1.7 million.

The typical interconnection process involves an interconnection customer connecting to the transmission system pursuant to the provisions of the Generator Interconnection Procedures (GIP), under the Open Access Transmission Tariff, which contemplates responsibilities for costs of necessary upgrades to the system associated with that interconnection. The generator customer requesting the interconnection is typically responsible for the costs associated with construction and/or upgrades of assets up to the "point of interconnection". The point of interconnection is the physical point at which the new interconnection assets connect to NS Power's existing electrical system.

Costs associated with assets from the generator/substation to the point of interconnection are borne by the generator customer. Costs associated with necessary upgrades or construction from the point of interconnection to NS Power's existing system

are borne by NS Power customers, which, if the costs are greater than \$250 thousand, require a capital application be submitted to the UARB.

In the case of the Parrsboro Tidal Interconnect, during the tidal generator RFP process administered by the Province, each applicant was required to indicate what other contribution they could make to the overall project. NS Power indicated that, subject to UARB approval, its contribution would be the upgrade of the local distribution line to a condition suitable to support the generating capacity of the tidal generator project. This agreement superseded the usual structure of interconnection costs described above.

NS Power's contribution serves the purpose of ensuring the overall project remains a viable resource for potential gains in renewable energy. Moreover, the interconnection will be provided by NS Power in lieu of the initial berth holder contribution required from other participants in the overall project. NS Power's obligation has always been, as a berth holder, \$1.7 million.

In Closing

NS Power's participation in this project is in our customers' interests for the following reasons:

- NS Power participation increases the probability that a viable technology will emerge from the demonstration project.
- NS Power participation will enable timely identification and, if possible, resolution of system operating and interconnection issues.
- The Bay of Fundy resource represents a large untapped resource for our province and our region. If a successful technology can be developed and demonstrated at this site, a large indigenous renewable resource would be the result, with the environmental and economic opportunities this would bring to Nova Scotia.

The interconnection project is an integral component in realizing the potential benefits of tidal power, which also includes the stabilization of rates through the replacement of the volatile pricing of fossil fuels with renewable sources of energy. NS Power customers will receive the benefit of the energy generated by tidal turbines connected by the transmission link.

November 10, 2011
N. McNeil

Yours truly,



Eric Ferguson, CMA
Director, Regulatory Affairs

Encl.

cc: Mark Savory, NSPI