

August 4, 2010

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

Dear Ms. McNeil:

Re: 2009 IRP Update – Action Plan Status Report; P-884

On November 30, 2010, Nova Scotia Power Inc. (NSPI) filed the 2009 Integrated Resource Plan Update Final Report (2009 IRP Update).

Section 5 of the 2009 IRP Update contained the Action Plan, divided into three parts: Part I – Development of Resources pre-2013; Part II - Preparation for post 2018 requirements; and Part III – Report on Progress. The first item in Part III of the Action Plan states:

As the Action Plan proceeds NSPI will provide the Board and interested parties with an annual report on the progress of the Action Plan. So as to incorporate year-end results, a report to the Board and interested parties on the status of the items listed in the Action Plan would be made by the end of Q1, on an annual basis commencing in 2011. Given that a number of items listed in the Action Plan call for activity in 2010, in addition to the annual reports to be filed by the end of Q1 each year starting in 2011, there will be an initial progress report filed in August of 2010. These progress reports will address each of the bulleted items listed in Parts I and II individually, describing what has been accomplished since the last report and cumulatively since the 2009 IRP Update. Looking ahead, they will indicate next steps to be undertaken and the associated timeline where applicable.

In the Utility and Review Board's (UARB, the Board) letter of December 17, 2009, the Board stated:

Consistent with Dr. Stutz's suggestion, the Board accepts the importance of timely and thorough reporting and directs NSPI to follow its Action Plan, addressing all the issues/areas listed in Parts I and II and reporting as discussed in Part III. Accordingly, the Board looks forward to receiving NSPI's initial progress report by August 4th, 2010.

Consistent with the 2009 IRP Action Plan and the UARB's directive of December 17, 2009, NSPI is pleased to provide NSPI's first progress report on the 2009 IRP Action Plan. A copy of the report is appended to this correspondence.

Yours truly,



Nicole Godbout
Regulatory Counsel

Attach.

- c. S. Bruce Outhouse, Q.C.
J. René Gallant
2009 IRP Update participants

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Action Plan Item	Status as of August 4, 2010
Part I Development of resources pre-2013	
Support pursuit of DSM consistent with the IRP trajectory and Board approved plans as interim Administrator until the new DSM Administrator, Efficiency Nova Scotia Corporation, is operational, which is expected to occur by February 2011 in time for the proposal of the 2012 DSM programming plan	On February 26, 2010, NSPI filed the DSM Plan for 2011. The plan proposed a DSM investment of \$41.9 million with targeted energy savings of 158.5 GWh and targeted demand savings of 30.0 MW. On February 26, 2010, NSPI also filed its DSM Evaluator's Report for the 2009 DSM Plan. The evaluated results indicated that the 2009 DSM Plan achieved energy savings of 64.37 GWh and demand savings of 10.26 MW (exceeding the targets of 50.26 GWh and 6.76 MW). These results were verified by the UARB's Verification Consultant. On June 7, 2010, the UARB approved the proposed overall DSM expenditure for 2011 in the form presented by NSPI. A full decision followed on July 27, 2010. Through 2010, NSPI continues to administer the 2010 DSM Plan in accordance with the IRP trajectory. It is expected that during the 2nd half of 2010, Efficiency Nova Scotia Corporation (ENS) will assume its responsibilities as DSM Administrator.
Following establishment of Efficiency Nova Scotia Corporation, develop Terms of Reference for a collaborative working group that includes Efficiency Nova Scotia Corporation, NSPI and UARB staff and consultants to support efficient transition to the new Administrator and pursuit of DSM investments consistent with the IRP and Board approved plans. This group could consider matters such as: • Regulatory oversight of the new DSM Administrator by the UARB • Alignment of DSM to IRP trajectory	On May 26, 2010, the ENS Board Chair announced the appointment of an interim executive officer and an interim financial officer. On June 24, 2010 the first meeting of the collaborative transition working group was held. A Terms of Reference was finalized and a work plan and schedule have been established to develop a Transition Plan to support efficient transfer of DSM and continued pursuit of DSM investments consistent with the IRP and Board approved plans. The Efficiency Nova Scotia Corporation Act requires that the UARB approve a Transition Plan. The Transition Working Group anticipates that the Transition Plan will be filed for UARB approval by August 30, 2010. Full transition of DSM programs is expected to be complete by year end. The Transition Working group consists of representatives from ENS, NSPI, and UARB

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• Integration of end-use modeling • Integration of AMI, if appropriate • Transition of programs, including measurement, evaluation and verification The Company anticipates this effort would be commenced during 2010.	staff and consultants.
Continue to pursue wind generation opportunities including applicable backup/load following strategies and transmission upgrades, such as a second 345 kV intertie to New Brunswick. The Company anticipates that these ongoing pursuits will continue over the next several years.	• On November 30, 2009 the UARB approved NSPI's capital application for the Nuttby Mountain Wind Project, a 45 MW, NSPI-owned wind farm. Construction of this project is underway and on budget and schedule. The turbines are expected to be in service by the end of 2010. • At the end of 2009, the Dalhousie Mountain Wind Farm went into service and began delivering wind energy to the NSPI grid. The wind farm is owned by RMSenergy, an Independent Power Producer, under contract to deliver wind energy to NSPI. • On June 14, 2010, the UARB approved NSPI's capital application for approval of the Point Tupper Wind Project, a 22.5 MW wind farm in which NSPI owns 49% of the project with 51% owned by an Independent Power Producer. Construction of this project is advanced and on budget and declared operational on August 4, 2010. • On July 23, 2010 NSPI filed a capital application for approval of the Digby Wind Project, a 30 MW, NSPI-owned wind farm. Construction of this project has begun and the turbines are expected to be in service by the end of 2010. • NSPI is actively monitoring the effects of increasing amounts of intermittent generation resources (wind) on the bulk power system. Monitoring and analysis includes the use of specific weather forecasts and the correlation to actual site output, the expectation is that by mid to late 2011 corollary data of weather and wind production can be used to further optimize system generation dispatch. NSPI believes that by the end of 2010 there will be sufficient wind penetration with locational diversity to commence the analytical work to assess the operational affects such as

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	regulation and load following. NSPI expects that the seasonal variances which will be experienced as the major wind projects come on line this year will provide important insight as to the system upgrades anticipated. • On June 30, 2010, NSPI filed a capital work application (CI 29009) for the acquisition of easement rights over lands in Northern Nova Scotia to facilitate the construction of a second 345 kV transmission line to New Brunswick. The acquisition of this right of way is an early step in this development planning process. On July 22, 2010, the UARB approved this capital work order. • On July 20, 2010, NSPI and New Brunswick Power announced that they had prepared a framework for regional cooperation for possible energy projects which would include expanded transmission capacity from Colchester County, NS to southern New Brunswick. • NSPI expects to gain operational experience as the 2010/2011 wind projects come on line. After a period of experience with this operation, NSPI will commence studies of the wind generation, as recommend by the 2007 Hatch Report. As appropriate, NSPI will determine and file capital applications for back up and load-following generation or transmission.
Provide a confidential technical briefing on the transmission system and transmission planning to Board staff and consultants during Q1 of 2010.	On March 25, 2010, NSPI representatives attended with Board staff members, Stephen Pronko and Ken Montgomery, and Board consultants, Bob Fagan of Synapse Energy Economics, Inc., Mel Whalen of Multeese Consulting Inc., and John Antonuk and Randall Vickroy of The Liberty Consulting Group, to provide a confidential technical briefing presentation on the NSPI transmission system and transmission planning.
Engage Board staff in advance of significant transmission-related capital applications.	On June 30, 2010, NSPI filed a capital application for the procurement of a Right of Way in northern Nova Scotia (approved on July 22, 2010). Capital work orders pertaining to the construction of additional transmission to the Western Valley area were filed with the Board on July 26, 2010. This includes the

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	construction of a 138 kV circuit between Canaan Road and Tremont, a 138 kV termination at Canaan Road and the addition of a 138-69 kV, 33.6/44.8/56 MVA transformer at Tremont along with the establishment of a 138 kV bus. This project is necessary to mitigate various contingencies that could result in transformer overload scenarios, line overload conditions and low voltage conditions. In advance of the above filings, NSPI contacted Board staff to provide an overview of these projects and to offer further engagement for Board staff if desired. Board staff indicated that this was not necessary at this time. NSPI will keep Board staff apprised of NSPI's actions and status as these types of projects progress. Dartmouth East Transmission Line: NSPI has identified a reliability requirement to improve the contingency supporting the 69 kV lines in East Dartmouth. Load is growing in the area and the HRM plans suggest increased development. By 2012 conditions are predicted to be such that one line outage during high load conditions could overload the other lines in the area. NSPI is evaluating possible options to address this requirement. An important component will be consultation with area residents and other stakeholders. NSPI will maintain regular contact with the UARB staff to ensure that the Board remains well-informed of the Company's plans and progress.
Participate with other stakeholders to assist in the evaluation of biomass supply and sustainability, and evaluation of technical constraints by government. The Company anticipates that this ongoing work will continue in 2010.	Stakeholder engagement on the evaluation of biomass supply and sustainability has been ongoing since 2009. Through the Wheeler process, NSPI was able to meet regularly with various interest groups to better understand their concerns and views on biomass. The negotiation of the 60 MW biomass project has also provided opportunity for NSPI to work on the topic of biomass supply and sustainability. Commentary on the provincial government's view on biomass is provided in the recently released Renewable Electricity Plan. Volumes available for electricity production are indicated. In addition, the Nova Scotia Department of Natural Resources (DNR) is

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	currently working on completing their natural resources strategy. It will comment further on biomass supply and sustainability issues. NSPI will continue to monitor government and stakeholder views on biomass sustainability while also pursuing the means to co-fire biomass in our generating stations. NSPI plans to engage a forester with expertise in sustainability to assist the Company in developing plans to source a sustainable supply of biomass for future needs.
Monitor the progress of the biomass mapping exercise (commissioned with the Nova Scotia Community College), to conduct a physical assessment (employing remote sensing, laser, and radar technology) and document the Nova Scotian biophysical landscape and resource level. The Company anticipates that this ongoing work will continue in 2010.	This mapping project is focused on the area around Middleton, NS. The project is underway and on time. Currently, the Nova Scotia Community College (NSCC) is at the stage of having most lidar and field data collected and databases compiled. Significant effort has also gone into aerial and ground-based survey of the NSPI right-of-way near Aylesford. The team is awaiting the final stem volume data from the stands on the DNR property. The major thrust now is on reconciling DNR sample plot information and independent forest plot data and lidar results.
Conduct an in-depth analysis of the biomass market in Nova Scotia, including an assessment of NSPI's effect on that market. (NSPI has recently awarded a contract to Gardner Pinfold with report expected in 2010.)	Gardner Pinfold, an economic consulting firm, was selected to conduct this analysis. Gardner Pinfold is in the process of finalizing this report.
Evaluate NSPI biomass co-firing (coal unit retrofit) opportunities. Continue with technical assessments (for example, test-burns, specification/costing of potential equipment retrofits, other design implications) to determine the feasibility of co-firing biomass. The Company anticipates that these ongoing pursuits will continue in 2010.	NSPI has completed significant biomass co-firing analytical and laboratory testing activities through 2009 and early 2010. Work to date indicates that existing NSPI solid fuel fired units can accommodate up to ~20% biomass co-firing without the requirement of extensive boiler heat transfer modifications. The Federal Government has selected NSPI's Biomass Co-Firing Project to be eligible for a Clean Energy Fund contribution up to \$8.2M. NSPI is advancing a detailed engineering study to support a capital work order application which is anticipated for late 2010.

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Engage Department of Energy and Department of Environment to ensure appropriate test programs are established for verification of continued compliance with operating permit(s) for co-fired unit(s). The Company expects engagement to continue in 2010.	NSPI is actively engaged with the appropriate provincial departments as fuel options, such as co-firing biomass, are contemplated.
Consider the recommendations arising out of the Nova Scotia government-led stakeholder process "N.S. Renewable Energy Consultations" (re: evolving renewable energy targets) and their effect on planning, if any. A Report is anticipated to be completed by Dr. David Wheeler in December 2009.	"A Renewable Energy Strategy for Nova Scotia: Final Report to the Government of Nova Scotia" was submitted by Dr. Michelle Adams and Dr. David Wheeler on December 28, 2009. The Report contained 25 recommendations to government for change to energy policy and practices in Nova Scotia. The government has proceeded with certain of these recommendations, as reflected in the Nova Scotia Renewable Electricity Plan announced in April of 2010 (http://www.gov.ns.ca/energy/resources/EM/renewable/renewable-electricity-plan.pdf) and the amendments to the <i>Electricity Act</i> which received Royal Assent on May 11, 2010 (http://www.gov.ns.ca/legislature/legc/bills/61st_2nd/3rd_read/b064.htm) Key changes include the requirement of an expanded net metering program which is required to be filed with the UARB by NSPI by November 1, 2010, the introduction of a community feed-in-tariff (COMFIT) which is required to be set by the UARB, and the process for appointment of an independent renewable electricity procurement administrator by Government. On May 28, 2010, the Government also announced draft Renewable Electricity Regulations under the <i>Electricity Act</i>: (http://www.gov.ns.ca/energy/publications/Renewable-Electricity-Regulations-Consultation-Draft-May-28-2010.pdf). Public comments were due on July 23, 2010 and a series of public consultation meetings

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	were held on the draft regulations. Finalization and passing of the regulations by Government is pending. NSPI has and will continue to consult with Government and stakeholders throughout this process. The Renewable Electricity Plan and the draft Regulations also deal specifically with biomass available for electricity production. The limits on biomass set by these documents will be further examined in the Department of Natural Resources Strategy which is set to be issued in early fall 2010. NSPI will closely monitor developments in this area.
Explore the implications of continued low natural gas prices for preferred resource plans.	NSPI continues to monitor natural gas prices along with other fuels, and continues to monitor the development of shale gas and its implications on North American and regional gas supplies. It is very early in the planning period and as of the date of this filing, NSPI has not observed pricing changes materially different from those used in the Basic Assumptions for the 2009 IRP Update.
Pursue NSPI facility upgrades, including: Precipitator upgrades to enable low sulphur, low-btu coal burning (Anticipated in 2010, 2011) Marshall Falls Hydro (Anticipated in 2010, 2011) Nictaux Hydro (To Be Determined) Lingan Efficiency Uprate (To Be Determined)	NSPI has invested in precipitator upgrades on Lingan #2 in late 2009. NSPI continues to undertake preliminary engineering work on the potential Marshall Falls hydro development project in preparation for advanced engineering and project detailed estimates prior to proceeding with development. Nictaux will be assessed in the coming year, with archaeology, hydrodynamics, and engineering activities underway. NSPI continues to assess the feasibility of Lingan Efficiency Uprates and will provide further status updates. Pending federal carbon regulations will be considered at that time.

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Part II – prepare for post 2018 requirements	
Execute tidal pilot project. Project has commenced and study will be ongoing.	NSPI and its technology partner, OpenHydro, publically announced their intention to recover the tidal turbine in the fall of 2010. Detailed project plans are being finalized for the recovery and engineering analysis phases which are anticipated to be completed through 2010 and possibly early 2011.
Actively monitor and participate in technology developments such as Carbon Capture and Storage. This work has commenced and will continue.	NSPI, Dalhousie University and the Province of Nova Scotia have formed the Carbon Capture and Storage Research Consortium of Nova Scotia (CCSNS). CCNSC has two management staff – a CEO and a Program Manager. The scope of Phase I (Design of a Pilot) has been divided into research packets and several have been issued to the marketplace and awarded, including Basin Screening and Regulatory. Good progress is being made. NSPI has a study underway with Atlantic Hydrogen Inc. out of Fredericton on the application of AHI's Carbon Saver Technology with natural gas combustion turbines. NSPI is part of the group of Maritime utilities studying Load Control in conjunction with additional variable renewable energy sources (wind). The Federal Clean Energy Fund is supporting this work.

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Examine opportunities for large non-emitting PPA including associated transmission upgrades, such as opportunities with respect to the Lower Churchill Falls project and/or large-scale imports from New Brunswick.	As noted above, on June 30, 2010, NSPI filed a capital work application (CI 29009) for the acquisition of easement rights over lands in Northern Nova Scotia to facilitate the construction of a second 345 kV transmission line to New Brunswick. The acquisition of this right of way is an early step in this development planning process and will be beneficial for transmission of energy from developments within the region. On July 22, 2010, the UARB approved this capital work order. On July 20, 2010, NSPI and New Brunswick Power announced that they had prepared a framework for regional cooperation for possible energy projects which would include expanded transmission capacity from Colchester County, NS to southern New Brunswick.
Evaluate the need for environmental retrofits to meet 2018 requirements.	Following the recent provincial governments announcement regarding mercury emissions, NSPI is engaging with the NS Departments of Energy and Environment to clarify detailed annual targets over the 2010-2020 timeframe in order to develop least cost compliance strategies.
Incorporate pre-2013 results.	To be completed on ongoing basis in preparation for 2013.