



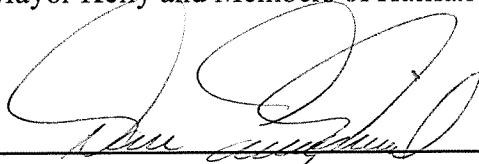
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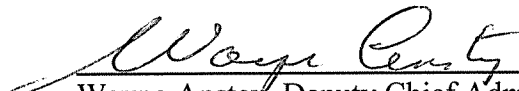
Halifax Regional Council
January 9, 2007

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:



Dan English, Chief Administrative Officer



Wayne Anstey, Deputy Chief Administrative Officer - Operations

DATE: December 20, 2006

SUBJECT: Green Power Purchasing - RFP # 06-122

ORIGIN

September 13, 2005 Committee of the Whole, Greenhouse Gas Emissions Local Action Plan

November 3, 2006 Energy and Underground Services / Harbour Solutions Committee Meeting

RECOMMENDATION

It is recommended that:

1. Council authorize the award of RFP # 06-122 to the two highest proponents, Barrington Wind Energy Limited and Ventus Energy Inc.; and
2. Pursuant to RFP #06-122, Council approve Financial Bilateral Contracts with Barrington Wind Energy Limited and Ventus Energy Inc. on the terms outlined in this report, for approximately 22 to 25 Giga-Watt-hours (GWh) each per year for 20 years, contingent upon the required regulatory changes, with funding from FISCAL Operating Account as outlined in the Budget Implications section of this Report.

BACKGROUND

HRM is facing, as a current budget issue, the increasing costs of energy including electricity costs, which in large measure are driven by the rapidly increasing costs of fossil fuels.

This reality is reflected in the current General Rate application filed by NSPI on October 10, 2006, to be heard by the UARB commencing January 22, 2007, which seeks an average rate increase of 7.5%. All indications are (including the information provided by NSPI) that rate increases will continue unabated for the foreseeable future.

Despite ongoing efforts and significant successes to reduce energy consumption, by 2008-2009 HRM corporate operational requirements for electricity will grow to well over \$12 million per year or approximately 100 GWh.

At the same time, the Province of Nova Scotia is moving forward with the Electricity Marketplace Governance Committee's (EMGC) 2003 recommendations to open the electricity market to competitive generators via financial bilateral contracts. Further to this, Barrington Wind Energy (and others) put together an industrial sized wind development in 2002 for 100 MW to be located in Guysborough. When fully built, the wind farm development would consist of approximately 50 turbines (2 MW each). In 2003 they established their position in the NSPI interconnection queue (discussed later) and have subsequently signed financial bilateral contracts with various Nova Scotia Municipal Utilities and Michelin. The provincial government has now targeted March 30, 2007 for the legislation to implement the EMGC's recommendations, and have been engaged in a public process to obtain stakeholder input that is well underway.

Council has adopted the following policies applicable to decisions on green power purchasing:

- ✓ HRM Corporate Greenhouse Gas 20% Voluntary Reduction Target
- ✓ Green power purchasing was one of the measures identified in the approved 2005 GHG Reduction Action Plan

Last spring Barrington Wind Energy approached the municipality to gauge interest in reducing costs through renewable energy purchasing. To ensure a competitive process with respect to the provision of electricity HRM issued an RFP targeting 20% of its electricity purchases.

DISCUSSION

Four proposals received on August 24, 2006 in response to the RFP were scored as follows:

	Score			
	VENTUS	BARRINGTON	RESL	CHEBUCTO
Experience (30%)	30	25	25	20
Timeliness (40%)	35	40	20	10
Financial & Contract Terms (30%)	25	25	20	Did not meet mandatory requirement
Total	90	90	65	-

The primary distinguishing features of the Ventus and Barrington proposals from the low scoring proposals were:

- ◆ No capital or land commitment required by HRM.
- ◆ Both projects are “project ready” and could be implemented within 2 years. The Ventus and Barrington projects have been sited, and have completed environmental assessments.
- ◆ The projects occupy the #1 & #2 spots in the NSPI interconnection queue.
- ◆ System impact studies are completed (a significant NSPI technical milestone).
- ◆ Significant savings in long term electricity purchases are provided
- ◆ Significant CO₂ credits are assigned to HRM.

A significant issue facing the 2 non-recommended proposals was access rights to the power grid. Similar to other jurisdictions, an interconnection queue system is managed by the utility to ensure reliability of the power system, while permitting access to Independent Power Producers (IPPs) in an equitable and transparent manner.

There are currently 18 wind projects listed in the NSPI interconnection queue website, representing 997 MW. Because of the intermittent nature of wind as a power supply, and to maintain system stability, there is a limit to the amount of wind power that can be connected to the power grid. In Nova Scotia that limit is currently estimated by industry at 400MW, although there is some debate currently underway whether that number is in fact considerably lower.

All the projects currently in the NSPI queue are outside of HRM including those of the two recommended proponents. The grid cannot accept all projects currently in the queue. This then adds a significant challenge for any “industrial sized” HRM located project that needs to be attached to the grid. The top two projects in the queue were added to the queue in 2003 and 2004 demonstrating the time required to reach the top of the queue. In addition, a developer cannot enter the queue until the exact location and size of the development has been determined. Neither of the HRM located projects had identified a proposed location, nor do they have a place in the queue, making it highly unlikely that either project could materialize within the foreseeable future. A detailed explanation of regulatory and technical barriers is included in *Appendix A - Regulatory and Technical Issues with Renewable Energy Development*.

Although the RFP was issued targeting a 20% commitment of current power supply, because of the attractiveness of the financial benefits, staff is recommending the award of the green power financial bilateral contracts to the top two proponents, **Barrington Wind Energy Limited (BWEL)** and **Ventus Energy** for a **40% commitment** of power supply (14 MW). The two somewhat complementary contracts would have the additional effect of minimizing the contractual risk associated with these **20 year commitments**. The reliability in terms of the risk of the wind projects not producing the expected output (and savings) would also be minimized by the separate geographic locations and by the structure of the financial bilateral contracts.

As an alternative Council could choose to award to only one of the proponents and contract for approximately 20% rather than 40% of overall electricity requirements as discussed more fully in the Alternatives section of this report.

The Barrington Wind Energy project is to be located in Canso, Guysborough County and the Ventus Energy project is to be located in New Ross, Lunenburg County. The total estimated construction

value of the two industrial sized developments is \$450 million, of which \$30 million would be for the HRM contracted component. Much of the regulatory approval for the projects is already in place and movement of the projects geographically would result in loss of their position in the NSPI interconnection queue. Expected revenues from property taxes associated with wind energy developments are modest in comparison to other forms of industrial development. The revenue potential is not exceedingly high and therefore should not be the primary reason for a decision to procure wind-generated power. A more detailed discussion on the economic impacts of wind energy is included in Appendix B.

BENEFITS OF CURRENT PROPOSALS

Significant financial and environmental benefits will accrue to HRM over the life of the Green Power Contracts:

- ◆ Based on 2.5% NSPI price escalation per year the contracts are projected to save HRM \$8.83 million over 20 years.
- ◆ The contracts will act as a hedge against future electricity rate increases, without any upfront capital requirements.
- ◆ The contracts will meet 100% of Council's 20% greenhouse gas reduction target by 2009, three years earlier than the 2012 voluntary commitment.
- ◆ 26,500 Tonnes of CO₂ emission reduction credits per year will be assigned to HRM.
- ◆ HRM will gain valuable experience in the redesign of the Nova Scotia electricity market for potential future projects in HRM including other wind developments, expansion of the Highland Energy Sackville Landfill Project and possibly the Community Energy District Energy Co-generation project.
- ◆ HRM would be acting as an important catalyst by demonstrating the commitment to purchase green power for long term economic and environmental benefits.

The benefits are based on the following key assumptions:

- ◆ That regulated electricity rates will continue to increase (see Figure 1 and 2) and,
- ◆ That renewable energy developers will be permitted limited market access through physical or financial bilateral contracts as recommended by the 2003 Electricity Marketplace Governance Committee Report and as endorsed by the Minister of Energy with the Electricity Act legislative amendments expected in the Spring session.

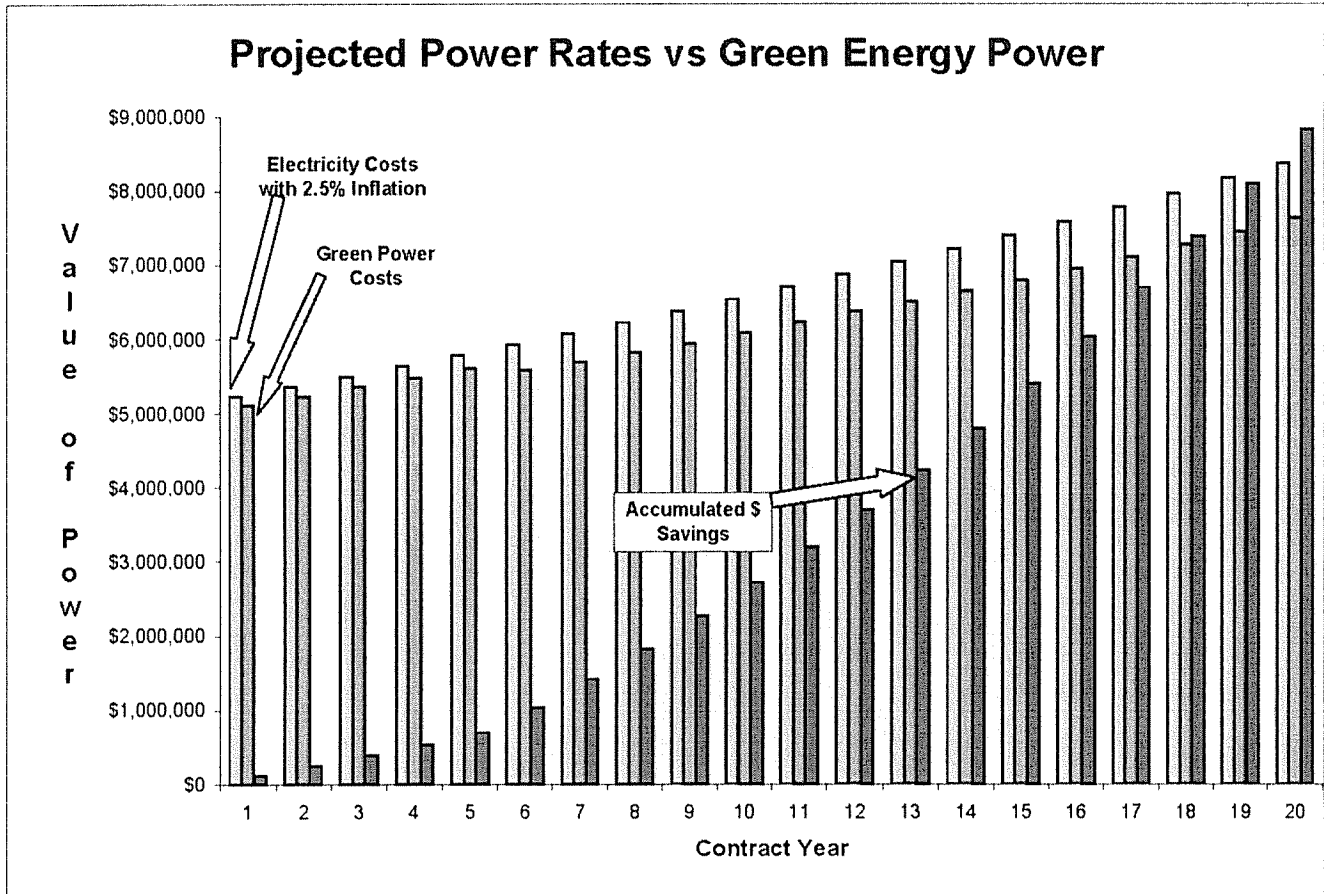


Figure 1. Forecast of financial comparison, Business As Usual vs Green Energy

Possible Scenarios:

	Worst Case	Most Likely	Best Case
Ventus & Barrington Proposals	No Electricity Increases, (& No Value to CO2)	2.5%/year increases	5%/year increase
HRM Total \$ Savings* for 20 years	-\$5.29 million	\$8.83 million	\$28.62 million

Figure 2. Summary of Net Financial Impacts

* No value has been assigned to the 26,500 tonnes of CO₂/year in financial analysis.

RISKS OF CURRENT PROPOSALS

There are several risks to signing the Green Power Contracts. They are identified below together with the countermeasures taken to mitigate these risks.

1) Regulatory Risks. The UARB will need to enact changes to determine the fair balance in allowing market access for renewable energy developers while maintaining the Nova Scotia Power monopoly and its customer base. This is anticipated within the next 3 to 8 months.

Mitigation Strategies

Should uneconomic market opening mechanisms or pricing result from a UARB decision HRM has the right to abort the Green Power Contracts within 45 days of such a decision.

Should there be an undue delay in legislative and regulatory requirements both contracts will expire with “sunset” clauses as of January 9, 2008.

2) Future Power Rates. The Green Power Contracts are Financial Bilateral Contracts - otherwise known as “Contracts for Differences”. HRM will still be a customer of NSPI, but should rates increase greater than approximately 1.6%/year HRM will receive a “rebate” cheque from the Wind Energy Developers. **Should regulated future power rates be lower than current rates (or increase less than 1.6%/year)** HRM will be obligated to pay an additional amount to the wind energy developers thereby increasing the utility budget in the applicable future years.

Mitigation Strategies

There is no way to predict with certainty future power rates. As outlined in other sections of this report, it is improbable that electricity price increases will be limited to less than 1.6%/year. Recent NSPI price increases have averaged about 4% per year since 2002.

The contracts assign approximately 26,500 tonnes of CO₂ emission reduction credits to HRM. Any potential future value of these credits could be used in the future to offset any payments to the wind energy developers - if required. Although NSPI is including a figure of \$10/tonne for carbon credits in at least some of its business plans, staff have taken a conservative approach for the purposes of this report and assigned no value to the carbon credits secured through these proposals.

BUDGET IMPLICATIONS

The net financial impacts are as set out in Figure 2. Summary of Net Financial Impacts.

The contracts will commence when power is generated from BWEL wind development in Canso and from the Ventus wind development, South Canoe Park in New Russell, Nova Scotia. It is expected that both wind developments will be operational in late 2008 to early 2009, and will impact HRM late in fiscal year 2008. The BWEL and Ventus contract term are 20 years.

26,500 tonnes of Emission Reduction Credits (ERC) will be assigned by Ventus and BWEL to HRM starting in year one of the contract. There is currently no established economic value to ERCs. If a financial value to ERCs is established, staff will prepare a future report asking for Council direction to either retire ERC's or sell them..

Barrington Wind Energy Limited (BWEL) Proposal

The BWEL proposal is a Financial Bilateral Contract that requires a commitment to purchase 22.5 GWh of energy from Nova Scotia Power. BWEL will provide a rebate based on the cost of energy purchased from Nova Scotia Power starting in year 6 of the contract and escalate until year 20 of contract. Actual savings will depend upon the metered output of the designated turbines. The estimated savings with the BWEL contract is \$4,006,786 for 20 years. Savings are to be recognized as a new HRM revenue source and are to be deposited in the FISCAL Operating account starting in Year 6 of the contract.

Ventus Energy Inc (Ventus) Proposal

The Ventus proposal is a Financial Bilateral Contract that requires a commitment to purchase 25 GWh of energy from Nova Scotia Power. Ventus or HRM will be issued payments based on the amount of power produced and the difference between the fixed energy rate in the contract and the floating null energy/pool price as determined by the UARB. Should the pool price exceed Ventus energy rate, Ventus shall issue payments to HRM. All payments to or from Ventus shall be assigned to the FISCAL Operating account starting in Year 1 of the contract.

The estimated savings with the Ventus contract is \$4,833,674 for 20 years. Actual savings will depend upon the metered output of the designated turbines, the capacity factor "bonus" assigned to renewables and the pool price (as determined by the UARB).

Emission Reduction Credits (ERC) will be assigned by Ventus to HRM for 100% of electrical output starting in year one of contract.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report does not comply with the Municipality's Multi-Year Financial Strategy to the extent that it pre-commits portions of future operating budgets for a term of 20 years to the purchase of electricity through these Financial Bi-Lateral Contracts. However, it is indisputable that the municipality will be required to purchase electricity, and will have to budget for these purchases, and this will be done in accordance with the Multi-Year Financial Strategy, and future approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

ALTERNATIVES

- ◆ Council could choose not to award proposals for green power purchasing at this time, take an advocacy approach in support of renewables and wait for regulatory changes. The current RFP would most likely expire, any new proposals would most likely change the financial terms.

- ◆ Council could choose to award to only one of the proponents, contracting for approximately 20% of overall electricity requirements versus the recommended 40%. Council would forego the substantial savings and greenhouse savings attributed with a 40% commitment with both proponents.

Council would need to determine which proposal to accept - the slightly higher risk/higher reward proposal or the lower risk/lower reward proposal. If this option is chosen staff would recommend the Ventus proposal, due to the higher probability of the project being executed due to Ventus' experience and financial backing. The Ventus proposal also assigns a greater percentage of greenhouse gas emission credits, which would still help HRM meet its voluntary 20% GHG reduction target.

However, this option is not recommended, as the contractual/project risks of choosing one contract without the complimentary alternative are higher.

- ◆ Council could choose to renegotiate the terms and conditions with both proponents and contract for a lesser or greater amount with both proponents. This option is not recommended.

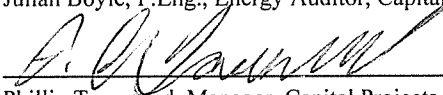
- ◆ Council could choose to take an alternative approach to encourage renewable energy development within HRM. The current RFP would expire and would delay the benefits of green power by indeterminate number of years. This option is not recommended.

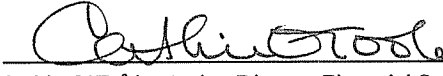
ATTACHMENTS

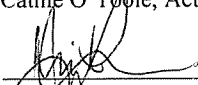
- Appendix A - Regulatory and Technical Issues with Renewable Energy Development
- Appendix B - HRM Economic and Environmental Considerations for Wind Power

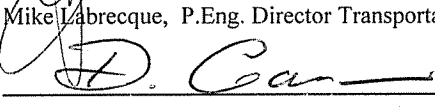
A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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Appendix A

Regulatory and Technical Issues with Renewable Energy Development

Overview of Regulatory Developments in Nova Scotia

The Nova Scotia Department of Energy (NS DOE) has indicated it is moving forward with changes to the Electricity Act this fall/winter enabling more favourable market conditions to encourage wind energy developer investment in Nova Scotia.

The NS DOE has very recently initiated stakeholder feedback on proposed regulations and market rule concepts which have been drafted. These specific market rules are being designed to allow renewable energy developers limited market access while balancing the requirements of doing “no harm” to NSPI and its customer base as a regulated monopoly. **The specific market rules under development are consistent with the 2003 Electricity Marketplace Governance Committee’s (EMGC) recommendations.** The EMGC pertinent recommendations are listed:

EMGC Recommendation 51

The EMGC recommends that any seller offering electricity from renewable resources using facilities constructed in Nova Scotia after 2001 be able to sell directly to electricity customers.

EMGC Recommendation 52

The EMGC recommends that sellers of electricity from renewable resources sell to electricity customers in Nova Scotia preferably on the basis of financial contracts, although physical contracts are certainly acceptable where the contracting parties can and choose to do so.

EMGC Recommendation 75

The EMGC recommends that NSPI offer backup supply service to competitive generators, at a price that is cost-based and regulated by the UARB.

Recommendation 76

The EMGC recommends that NSPI create a top up and spill system for cogenerators and competitive entrants, under which it buys or sells uncontracted power at a cost-based rate, as approved by the UARB.

Wind farm developers are required to make significant long term capital investments to move forward with projects. In order to finance projects they need long term contractual commitments from counter parties such as Nova Scotia Power or retail customers like HRM. **The proposed regulatory changes will enable customers who are willing to take the risk of long term contracts, like HRM, to enter into Financial Bilateral Contracts.**

Explanation of Financial Bilateral Contracts

A financial bilateral contract is **also known as a contract for differences. In essence it is financial hedge**, that depending upon the differences can be considered a liability or an asset to the purchaser. A good analogy is to consider the financial bilateral contract a purchase of a “manufacturers rebate” - that fluctuates and that obligates the purchaser to buy a commodity from a distributor (NSPI in this case). The value of the rebate will change depending upon the market price from the distributor. In this case if the market price of the commodity increases the value of the rebate also increases. If the market price decreases the value of the rebate decreases, possibly to a point where it does not offset the cost of buying the “rebate”.

Appendix A (cont.)

Technical and Market Issues with Wind Power Developments Impacting Projects

The global wind power industry has been doubling every 3 years for the past decade. Wind turbines now take approximately 18-24 months to deliver to sites - from the date of order. Due to this rapid growth, manufacturers have increased prices nearly 40% in the last two years. This is causing marginally located or financed projects to not be developed.

Developers experience **long project implementation lead times** to address site permitting, and technical interconnection issues - prior to the ordering of equipment. HRM's Planning and Development department has initiated a process to identify zoning issues and solutions for wind power projects inside HRM. These issues will not be addressed within this report. Although a critical milestone for projects, site permitting is not as important as the addressing of technical interconnection issues.

Interconnection Issues - The Importance of the NSPI Queue

Due to the intermittent nature of wind power, and its natural instability there are practical limits on the amount of wind power that can be put on the electricity system's grid. A general industry "rule of thumb" is that **electricity systems have the potential to become unstable when more than 20% of the energy delivered is from intermittent sources like wind power**. This is mostly speculative, since most jurisdictions have no experience with such high penetration rates of wind power. **In Nova Scotia the 20% wind power limit would be approximately 400 MW**. Nova Scotia Power has recently stated 10% might not be technically feasible due to the system's characteristics.

In order to ensure system reliability a System Impact Study is required - when the size and location of the wind farm to be connected is known. In theory, **projects already connected could limit the capacity of future developers**. Like most jurisdictions NSPI manages this interconnection process through a strict protocol to ensure equitable and transparent access rights to the power grid. The queue system dictates that those projects at the top of the queue will be technically analysed first with the following projects needing to wait until the projects have been fully assessed. The full NSPI technical analysis for each project consists of 3 steps - a system impact study, a network feasibility study, and a facility study. **Due to the complex requirements of each step, it can take several years to gain interconnection approval for large (greater than 2 MW) projects**.


A part of the current interconnection queue is shown below. **18 projects are currently in the queue**. It is highly unlikely all these projects will be fully built, as **the current list totals over 997 MW** of wind development.

Barrington Wind Energy and Ventus Energy occupy the #1 and #2 spots in the interconnection queue.

Appendix A (cont.)

Nova Scotia Power Interconnection Request Queue

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Request Date	County	MW Summer	MW Winter	Interconnection Point Requested	Type	Inservice date YY/MM/DD	Status	Service Type	Studies Available
14/10/2003	Guysborough	15	15	L-5527B	Wind	2006	Facilities Study Complete	N/A	
23/07/2004	Lunenburg	100	100	L-6004	Wind	2008-11-01	Feasibility Study Complete	NRIS	
11/08/2004	Inverness	30	30	L-5579	Wind	2008	Feasibility Study Complete	ERIS	
10/10/2004	Cumberland	100	100	L-6513	Wind	2008-11-01	Interconnection Request Valid	NRIS	
10/10/2004	Inverness	100	100	L-6549	Wind	2008-11-01	Interconnection Request Valid	NRIS	
22/11/2004	Cape Breton	100	100	New 138kV Line	Wind	2008-11-01	Interconnection Request Valid	NRIS	
04/01/2005	Colchester	35	35	L-6503	Wind	2008-Q2	Interconnection Request Valid		
19/01/2005	Cumberland	35	35	L-6535	Wind	2008	Impact Study Complete	N/A	
25/01/2005	Colchester	32	32	L-6513	Wind	2008-11-31	Interconnection Request Valid	ERIS	
19/08/2005	Cumberland	60	60	L-5058	Wind	2008-11-31	Interconnection Request Valid	ERIS	

Page 1 of 2

ERIS - Energy Resource Interconnection Service
 NRIS - Network Resource Interconnection Service
 N/A - Not Applicable

Figure 3. Page 1 of Current NSPI Interconnection Queue

APPENDIX B

HRM Economic and Environmental Considerations for Wind Power.

Economic considerations in respect to wind energy range from macro/global to the micro/local and are closely linked to climate change, the environment and economic development. The most recent thinking in respect to economic considerations at the macro/global level is captured in the recently-released ***Stern Review : The Economics of Climate Change***, an independent review commissioned by the British Chancellor of the Exchequer and Prime Minister Blair as a means of assessing the evidence around the matter of climate change and of understanding its economic implications.

Through the use of models and in consideration of physical impacts of climate change on the global economy, human life and the environment based on a growing body of scientific evidence, the Stern Review examined the resource costs of different technologies and strategies to reduce greenhouse gas emissions and to stabilize such emissions in the atmosphere. Based on the evidence considered, the review concludes that:

- “Climate change presents a unique challenge for economics: it is the greatest and widest-ranging market failure ever seen.” (pg i, Executive Summary)
- There are increasing risks of serious irreversible impacts from climate change associated with “business-as-usual” paths for emissions (pg. iii, Executive Summary); and
- “The benefits of strong, early action on climate change outweigh the costs.” (pg. i, Executive Summary)

Energy emissions for power generation comprise the world’s largest single source of greenhouse gas emissions¹. Nova Scotia is heavily reliant upon carbon-based technologies to meet its energy needs. If the global community is to transition towards a low-carbon economy in response to growing scientific evidence and avoid the economic consequences associated with business-as-usual paths to emissions, it is likely that significant policy changes will have to be introduced by national governments.

The form in which policy change might take in response to growing scientific and economic evidence on climate change is a matter of considerable debate at the international and national levels. Decision makers, such as the federal government, are faced with the difficult task of balancing the economic, social and geopolitical implications associated with reducing dependency on carbon-based technologies which presently feed economic growth (and which will remain available into the foreseeable future), with the economic, social and geopolitical costs of taking a business as usual approach to emissions and their effect on climate change and respond appropriately. Trading and credit schemes to help build market confidence for carbon pricing, such as the use of emission reduction credits and/or other economic instruments are examples of policy approaches to balancing what can be described as public policy trade-offs around the climate change issue.

¹Stern Review, Executive Summary, pg iv. Energy emissions include: **power** (24%); transport (14%); industry (14%); buildings (8%) and other energy related (5%). Non-energy emissions include: land use (18%); agriculture (14%) and waste (3%).

APPENDIX B:

HRM Economic and Environmental Considerations for Wind Power. (Cont)

Although the direct role of municipal governments in broader discourse on international policy development may be limited, many such as HRM, are taking the initiative to develop more sustainable approaches to balancing environmental sustainability with economic development.

The 25 year Regional Plan references clean, efficient and renewable energy opportunities and in particular proposed functional plans such as Emission Reduction, Community Energy Planning and a Wind Energy Master Plan.

Several other Council approved plans, actions and strategies also make direct reference to pursuing renewable and clean energy opportunities that can increase energy security and reduce the heavy reliance on fossil fuels. Some Examples include:

- Active Transportation Plan (options to fossil fuels)
- Clean Air Legal Petition to the United States Environmental Protection Agency
- Clean Air Strategy
- Climate SMART (Climate change mitigation and adaption planning)
- Corporate and Community Greenhouse Gas, Emission Reduction Plans
- Community Energy Plan

HRM's Regional Plan, and its Community Energy and other "Green" initiatives such as the purchase of wind-generated power, are examples of such municipal stewardship initiatives. HRM's Economic Strategy and its approach to economic development, is also a policy tool that complements the Regional Plan. Purchasing energy generated through renewable sources, such as wind power, represents an opportunity for HRM to not only ensure value-for-dollar and some predictability in relation to energy costs over the long term, but to be proactive from both an environmental sustainability and economic standpoint.

At the more regional level, **the purchase of wind power provides a strong signal to its citizens that HRM is interested in taking steps within its own means to ensure more predictability in managing its energy costs over the long term.** In doing so, the municipality is acting responsibly and very much like a large, private sector company does in considering a decision on locating in or expanding within a particular area. By way of example, Michelin recently entered into an agreement to purchase wind-generated power along lines similar to those described in this report. The costs and availability of energy are among various factors considered by large scale business and commercial development interests before locating in a particular setting.

In addition to the global and regional economics, staff have considered how the procurement of wind-generated energy from sources outside HRM might impact the potential to develop a wind energy industry in HRM. Staff have considered the following in developing a position on this matter:

- Interest that has been expressed by Council into the notion of partnering with wind energy developers that might involve the leasing of municipal lands used for wind farms as part of a broader community energy planning initiative.
- The likelihood that owners of large private property holdings in HRM used for forestry or agricultural land could benefit from leasing land to wind energy developers.
- Potential tax revenues derived from the construction and operation of large or smaller-scale wind energy facilities in the municipality.

APPENDIX B:
HRM Economic and Environmental Considerations for Wind Power. (Cont)

The procurement of wind-generated energy from either or both of the suppliers identified in this report does not preclude any of these scenarios. Council has requested that staff proceed with the preparation of land use policy and regulatory amendments that would enable large scale wind farm operations to be developed within HRM. Using criteria developed through a recent wind energy suitability study, this could entail the identification of significant areas of land under public and/or private ownership which could be suitable for wind energy development. Depending on the length of time required to complete public consultation, analysis, report preparation and a public hearing process, specific areas where wind energy parks could be developed within the municipality could be identified within the next year.

The completion of a process to adopt land use policy and regulations to facilitate siting of wind energy facilities would only enable a wind energy park to be considered at a particular location or locations within HRM. Additional time would be required for a wind energy developer to move to the front of the queue, negotiate agreements with Nova Scotia Power to transfer energy on its grid and to obtain any required environmental permits, order turbines and ultimately construct facilities. **In other words, the actual construction of wind energy facilities within HRM appears to be an event that remains a few years out.** In the meantime, an opportunity has been presented for Council to take action now.

Expected revenues from property taxes associated with wind energy developments are modest in comparison to other forms of industrial development. In respect to tax revenues, the provincial Assessment Act was recently amended to make the property tax system more conducive to wind energy development. **For example, the tax revenues from a 14 MW power commitment as proposed in this report, based on a property tax cost of \$5,500 per MW would be in the range of \$77,000/year.** The revenue potential is not exceedingly high and therefore should not be the primary reason for a decision to procure wind-generated power.