June 30, 2009

Kirsten Walli
Board Secretary
Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, Suite 2700
Toronto, Ontario M4P 1E4

Dear Ms. Walli:

Re: Ledgecroft Farms Inc. Response to Board File No: EB-2009-0077

Please see enclosed a submission as per the call for comments to the proposed amendments to the DSC, referencing Board File No: EB-2009-0077.

This submission has been prepared by:

Ledgecroft Farms Inc.
354 Back Street
R.R. #1 Seeley's Bay
Ontario K0H 2N0
c/o Jennifer Green
Phone: (613) 387-3503
Fax: (613) 387-2287
Email: ledgecroftfarm@yahoo.ca

Williston & Associates Inc.
3324 Gregoire Road
R.R.#2 Russell
Ontario K4R 1E5
c/o Dale Williston
Phone: (613) 445-0937
Email: dale.williston@sympatico.ca

Please don't hesitate to contact us should you have any questions or comments.

Sincerely,

William B. Green
Owner, Ledgecroft Farms Inc.

Ledgecroft Farms Inc. – Biogas Project

Response to OEB Proposed Amendment to DSC

Board File No: EB-2009-0077

William B. Green
Owner, Ledgecroft Farms Inc.
354 Back Street
R.R.#1 Seeley's Bay
Ontario K0H 2N0
Telephone: (613) 387-3503
Facsimile: (613) 387-2287
Email: ledgecroftfarm@yahoo.ca

and

Dale Williston
Owner, Williston & Associates Inc.
3324 Gregoire Road
R.R.#2 Russell
Ontario K4R 1E5
Telephone: (613) 445-0937
Email: dale.williston@sympatico.ca

Issue Date:
June 30, 2009

Table of Contents

1 INTRODUCTION

This submission is made in response to a call for comments by the Ontario Energy Board (OEB) to proposed amendments to the Distribution System Code (DSC).

The submission has been prepared by Ledge croft Farms Inc. and Williston & Associates Inc. and reflects only the views, comments and questions from these companies. Ledge croft Farms endeavours to become a distributed generator of renewable energy in the form of biogas generation. Williston & Associates Inc. has provided consulting services to Ledge croft Farms dealing with interconnection issues with the LDC.

By way of this submission, Ledge croft Farms Inc. and Williston & Associates intend to:

- provide the OEB perspective on the issues affecting renewable generation connections in Ontario today from first-hand experiences;
- pose questions and points of clarification on the proposed amendments; and,
- offer recommendations of improvement for interaction with LDCs to enable growth of the renewable energy sector.

2 FARM INFORMATION

2.1 Business Description

Ledge croft Farms Inc. is owned by Ben, Laura and Glenn Green and located in Seeley's Bay, Ontario in Leeds County. Ledge croft Farms is a large herd dairy operation consisting of approximately 500 Holstein animals, including heifers and calves. This first generation family farm has been in operation since 1971.

2.2 Electrical Connections

Ledge croft Farms Inc. is a customer of Hydro One Networks Inc. (Hydro One). Currently a single phase line supplies electricity to operate all necessary demands on the farm. An overhead line drawing single phase power from Back Street connects to a 75 kVa pole-mount transformer located at a central location on the farm. From here, all electrical connections are made either by overhead or buried wires to each structure.

The existing single phase supply to the farm will be upgraded to three phase supply to connect the biogas project. This upgrade is a distance of 2.65km from the farm to the closest point of three phase connection.

3 BIOGAS PROJECT

3.1 Background

Ledge croft Farms chose to pursue a biogas project as a complement to the existing dairy business. Ledge croft Farms began to research and plan for their biogas project in early 2007. Our first step in pursuing this opportunity was to clearly understand the availability and cost of connecting to the Hydro One grid. Given the level of investment in this kind of renewable energy project, the financial impact of all aspects of the project, including connections to the utility, needed to be determined prior to moving forward.

3.2 Generator Connection Process

Connection Costs

In October 2007, Ledge croft Farms began the generation connection process with Hydro One (filing for a connection impact assessment - CIA) to become a distributed generator of renewable energy. Ledge croft Farms received the CIA response in August 2008 which stated the requirement for substantial upgrades to the line in the form of transfer trip, ground directional relaying and others. An estimated value of $700,000 to $800,000 was associated with these upgrades.

Ledge croft Farms chose to work with Hydro One by retaining Williston & Associates Inc, a technical expert on line protection and controls, to develop a more reasonable cost of interconnection that negated the more costly Hydro One requirements. By March 2009, Hydro One approved the proposed alternate interconnection design and defined the associated costs for connection at approximately $70,000.

Line Upgrade Costs

In conjunction with efforts put forward technically to resolve obstacles of interconnection, Ledge croft Farms was also working to obtain a cost connection estimate for their 2.65km line upgrade. Hydro One initially developed a Class C estimate of ± 50% for the line upgrade. Ledge croft Farms was not able to make financial decisions on the basis of this estimate as no lender would approve a request for funds with such a degree of uncertainty. The development of this cost estimate was integral from a timing perspective to move the overall project forward. As a result, Ledgecroft Farms paid a fee of $17,000 to obtain a Class A estimate that would provide for greater clarity of costs for the line upgrade. Four months later, Ledge croft Farms received the Class A estimate from Hydro One which included the addition of new cost components not previously communicated.

Not dissimilar to our experience in working through the CIA, this process of obtaining a cost estimate for line upgrade also demanded considerable time and cost on our part. These efforts included: communicating with multiple persons each with specific expertise to resolve issues; attempting to hold Hydro One accountable to costs by requesting additional definition and transparency of estimates; and, pursuing timely response and delivery of materials in order to form the basis of a sound business decisions on the overall project. The costs associated with the line upgrade were determined to be approximately $350,000.

Summary

The total connection costs to date are approximately $420,000; however, even after considerable due diligence in working professionally with Hydro One, Ledgecroft Farms is not assured that this estimate represents all the costs.

3.3 Project Timing

Ledgecroft Farms began construction of their biogas project in April 2009. The AD system is to be completed in two phases – the construction which is anticipated to be complete by end of July, 2009 and the commissioning which is anticipated to be complete by mid-November, 2009 based on delivery of the generator.

Ledgecroft Farms is targeting an in-service date of mid-September for all Hydro One interconnection works including the three phase line upgrade and other associated works for connection. Ledgecroft Farms has not contractually authorized Hydro One to complete these works given the potential for cost recovery through proposed amendments such as these by the OEB and other possible initiatives through the launch of the Ontario Power Authority FIT program.

4 QUESTIONS AND POINTS OF CLARIFICATION

Given the political willingness to support renewable energy projects through the passing of the Green Energy and Green Economy Act, there also stems uncertainty surrounding cost recovery by the generator for connection related works to the LDC.

The following questions and points of clarification are posed as they relate to the OEB proposed amendments:

1. For projects already committed to construction but not yet having contracted with LDCs for connection work, when does the OEB anticipate ruling on the proposed amendments?

2. Connection Assets (Page 5). Connection asses are interpreted as assets that would be specific to one generator or those "inside the station fence". This would include the generator, step-up transformer and the distribution line that connects the step-up transformer to the utility's distribution system. There are however assets that reside inside the fence and even straddle the fence. Examples of these are:

- Line protective relaying. It resides inside the station fence but its function is to protect the utilities distribution line.
- Transfer trip or anti-islanding protection. There will be equipment installed within the generating station and at the utility's substation. It also requires communication channels which may be leased from a carrier such as Bell Canada or on communication facilities owned by the utility. If the communication channel is leased, there will be monthly charges.
- Supervisory Control and Data Acquisition (SCADA). There will be equipment installed within the generating station and at the utility's substation. It also requires communication channels which may be leased from a carrier such as Bell Canada or on communication facilities owned by the utility. If the communication channel is leased, there will be monthly charges.
- Metering and communication circuits required for remote access.
- Additional meters and processes required to accommodate metering alternatives.

   For each of these, how will they be categorized, connection assets or renewable enabling improvements? Who will be responsible for the capital costs and the ongoing operation and maintenance costs?

3. Expansions (Page 5). If the generator is large enough to require the utility distribution station or transformer station to require upgrades, for example

the distribution station transformer must be changed from a 5MVA transformer to a 10MVA transformer, who is responsible for the cost?

4. Expansions (Page 6). In the OEB's research of expansion requirements, was consideration given to distribution generation projects of less than 1MW and if so, how was the expansion cost cap of $90,000/MW deemed to be proportionate for smaller scale projects?

5. Renewable Enabling Improvements (Page 7). Does all protective relaying fall into this category? What about lightning arrestors?

6. Coming Into Force (Page 9/10). What constitutes an application to connect? Is it the Connection Impact Assessment or when the contract is signed by the customer to connect the generator to the distribution system?

5 RECOMMENDATIONS

Based on the Ledgecroft Farms experience described herein, it is apparent that improvements can be made to the generation connections process to enable the growth of the renewable energy sector as supported by the government. The role of the OEB and its relationship with the LDCs is of great significance to allow for these necessary changes to occur.

The following points are provided to the OEB for consideration:

1. Cost uncertainty is a major obstacle to any developer, including a distribution generator proponent. Greater transparency and accountability of cost estimates by the LDCs is necessary.

   Why not develop a reference table that forms the basis of determining cost estimates based on known factors such as voltage level, number of phases, soil condition, etc. This type of table could easily be supported by the decades of experience of utilities building distribution lines as well as other applicable reference data. This table could be an item that the LDC submits as part of its rate submission for approval by the OEB. Similar tables could be developed for other common items that a DG is responsible for. Furthermore, current rates and utility charges for service are based on averages costs across the service area. Even the OEB's recommendation of a $90,000/MW cap as an expansion credit is based on average costs.

   Consideration should be given to applying the same principle of average costs to better establish reasonably accurate and better defined line extension estimates.

2. The timeliness of moving through the generation connections process is not reasonable. Improved communications and commitment to follow-through by LDCs is necessary.

   If a table as per item 1 above was developed, a firm definition of costs could be established at the initial stages of any project, thereby eliminating both cost uncertainty and streamlining the process.

6 CLOSURE

In closing, the principles of renewable energy are sound and logical as demonstrated by other world leaders; however, the financial burden of connection costs cannot be shouldered by the distributed generator alone. The consumer is the beneficiary of our generation as well as all the ancillary environmental aspects.