

SCHOOLS INTERROGATORY #1

INTERROGATORY

[A/1/3, p. 1] Please provide the full application/proposal to NRCan, with all supporting schedules, and all correspondence or other documentation supplementing or explaining the application/proposal.

RESPONSE

Please see VECC Interrogatory #1 at Exhibit B, Tab 2, Schedule 1

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #2

INTERROGATORY

[A/1/3, p. 1] If not included in the last interrogatory, please provide the detailed budget for the project, broken down by expenditure type, by year, and by source of funds (i.e. NRCAN vs. partners vs. any other sources). Please include details of all sources of funds other than NRCAN that have been identified.

RESPONSE

Please see VECC Interrogatory #1 at Exhibit B, Tab 2, Schedule 1.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #3

INTERROGATORY

[A/1/3, p. 1] Please provide any business case or other internal analysis of the project, including any document showing how the Applicant and/or the ratepayers make a profit or otherwise derive a benefit from the activity.

RESPONSE

Please see Board Staff Interrogatory #1 at Exhibit B, Tab 1, Schedule 1. Please also see CCC Interrogatory #6 at Exhibit B, Tab 7, Schedule 6 and CME Interrogatory # 6 at Exhibit B, Tab 5, Schedule 6.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #4

INTERROGATORY

[A/1/3, p. 2] Please describe how the proposed initiative represents demand side management, and provide details concerning the main ways that it is likely to lead to reduction in the use of natural gas by the Applicant's ratepayers. Please clearly distinguish between space heating, water heating, and other gas loads and provide whatever information the Applicant has currently available on the relative impacts on those loads.

RESPONSE

Please see Board Staff Interrogatory #1 at Exhibit B, Tab 1, Schedule 1 and Pollution Probe Interrogatory #1 at Exhibit B, Tab 3, Schedule 1.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #5

INTERROGATORY

[A/1/3, p. 2] Please provide details of all solar thermal technology projects, whether similar to the proposed project or otherwise, carried on by the Applicant or any of its affiliates since 2003, including proponents, sources of funds, nature of project and technologies explored, ratepayer costs if any, and outcomes. Please include not only projects that have been completed, but also any projects that remain ongoing.

RESPONSE

Please see CME Interrogatory #4 at Exhibit B, Tab 5, Schedule 4.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #6

INTERROGATORY

[A/1/3, p. 3] Please provide a copy of the current draft of the Contribution Agreement.

RESPONSE

Please see CME Interrogatory #1 at Exhibit B, Tab 5, Schedule 1.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #7

INTERROGATORY

[A/1/3, p. 4] Please describe the resources the Applicant will employ internally in the design and development of the systems to be tested. Please identify the specialized expertise at Enbridge that will be used for each of the design and the development components of the project. If the Applicant plans to use outside resources for the design of the collectors, storage media, and/or systems, please describe the value added that the Applicant is bringing to the project in the design and development phase.

RESPONSE

A description of the resources EGD will employ internally in the design and development of the systems to be tested are presented in the proposal to NRCan found in VECC Interrogatory #1 at Exhibit B, Tab 2, Schedule 1.

EGD brings expertise with regard to building envelope design, solar thermal hot water heating, program management, distribution networks and pilot site monitoring, equipment installation, selection, design, remote monitoring, data gathering & analysis. The success of such an initiative goes beyond the need for technical expertise. The ability to bring various partners together and generate working relationships and legal agreements is imperative. EGD's DSM activities have had a successful history of bringing various parties together and forming working multi-party agreements for the purpose of conducting pilot programs specific to energy conservation technologies.

EGD believes that it, like other utilities, is considered as a trusted resource/ service provider in the Ontario energy industry and therefore a party that others wish to work with and a party that customers trust. EGD believes that being a large natural gas utility in the thermal space heating business was recognized by NRCan in their selection process.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #8

INTERROGATORY

[A/1/3, p. 4] Please identify and describe the sites that have been selected for installation and monitoring. If the sites have not been selected, please describe the process that will be used to select those sites.

RESPONSE

Please see Board Staff Interrogatory #2 d at Exhibit B, Tab 1, Schedule 2.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #9

INTERROGATORY

[A/1/3, p. 8] Please describe – other than the Company’s intention that the funding for this project be incremental to the existing DSM budget – how this project is similar to the Industrial Sector Pilot Program.

RESPONSE

As stated in EGD’s Application, neither this project nor the Industrial Pilot Program “will impact the formulaic DSM target, or contribute TRC results for the purposes of SSM calculation.”

Further, both initiatives will result in gas savings for the participants and both initiatives represent new approaches to achieving DSM savings.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #10

INTERROGATORY

[A/1/3, p. 9] Please provide the proposal for this project made to the Applicant's Board of Directors, with all supporting materials. If this project was not presented to the Board of Directors for approval, please provide the proposal for this project that was made to the most senior level of management that approved or considered the project, with all supporting materials.

RESPONSE

Please find attached the requested documents.

The first presentation indicates the timeline and process for submissions to NRCan and the second presentation discusses the actual project that was submitted to NRCan.

Please also see VECC Interrogatory #1, Exhibit B, Tab 2, Schedule 1.

The documents presented above were reviewed by EGD's senior management for the purpose of approving an application to NRCan's CEF. The proposal was not presented to the Board of Directors.

Witnesses: P. Hoey
A. Mandyam



Natural Resources Canada Clean Energy Fund Overview June 3rd, 2009

Clean Energy Fund - Introduction



- **Administered by NRCan**
- **Intent: Lower Canada's GHG Emissions**
- **\$1 Billion pool of funds for:**
 - \$650mm for Carbon Capture and Storage
 - \$200mm for Small Scale Demonstration Projects
 - Using renewable and alternative energy
 - \$150mm for Research and Development
 - For basic research to pilot projects
- **Project submission timeline**
 - Intent to submit form required to get application forms
 - September 14th - Noon application deadline
 - Program ends on March 31, 2014

CEF Funding Model



- **CEF will fund up to 50% of project costs**
 - **Projects of at least \$5 mm** (up to \$100 mm)
 - **Funding Conditions:**
 - Must be approved by NRCan selection team
 - Signed contribution agreement before funding
 - Repayment of contribution if project profitable
 - License IP to Canada for non-profit use
 - Complete Federal EA if required
 - **Other Factors**
 - Multiple stakeholders, including utilities, sought
 - Compatibility with US Government GHG Policy

Eligible Projects



- **EGDI to target alternative and renewable demonstration projects and R&D funding:**
- Biogas / mass projects for electricity or heat to replace fossil fuels
- Geothermal / Waste Heat to provide heat or power for communities
- Heat pump technology
- Pressure letdown station energy harvesting / clean power
- Solar thermal and PV system early deployment in subdivisions
- Storage systems for intermittent renewable heat and power
- Solar thermal short-term / seasonal storage
- Utility scale energy storage (compressed air, chemical storage)
- Others: Low head hydro, Marine energy (tidal/wave), Remote community systems – diesel displacement, Smart Grid technologies & Wind energy “Canadian” challenges

Next Steps



- **Review of projects in small groups**
 - **Determine**
 - Yes – We have a project
 - Do we need a partner?
 - No – Do not proceed
 - **Get clarity on rules**
 - **Preliminary economic analysis**
 - Prepare intent to submit on “Yes” projects
 - **Get EMT approval for final submissions**
 - **Submit applications**



Natural Resources Canada Clean Energy Fund Overview

Clean Energy Fund



- Administered by NRCan
- Intent: Lower Canada's GHG Emissions
- \$1 Billion pool of funds for:
 - \$650mm for Carbon Capture and Storage
 - \$200mm for Small Scale Demonstration Projects
 - Using renewable and alternative energy
 - \$150mm for Research and Development
 - For basic research to pilot projects
- Projects due midnight September 14th

CEF Funding Model



- **CEF will fund up to 50% of project costs**
 - **Projects of at least \$5 mm (up to \$100 mm)**
 - **No risk to put applications in**
 - **Funding Conditions:**
 - Must be approved by NRCan selection team
 - Commercial, Financial & Technical
 - Signed contribution agreement required before funding by March 2010
 - Repayment of contribution if project profitable
 - License IP to Canada for non-profit use
 - Complete Federal EA if required

Projects for Submission



- **Solar Thermal Space Heating**
 - **Cost \$5.2 million (50% NRCan)**
 - Stage gated approach
 - NRCan covers Enbridge's external costs
 - 100 units
 - Project is scalable
 - **Uses three types of collector**
 - Flat Panel, Evacuated Tube, Micro CSP
 - **Includes storage of heat**
 - Tank, Ground and Thermal Mass
 - **Target 50% energy / emissions savings**
- **Able to be used in retrofits**
- **Potential partners to be determined**

SCHOOLS INTERROGATORY #11

INTERROGATORY

[A/1/3, p. 10] Please provide details of all benefits to ratepayers, if any, expected to arise from this project, including financial and other benefits. Please quantify those benefits, if possible, and relate those benefits to the costs and risks to be borne by the ratepayers.

RESPONSE

Please see Board Staff Interrogatory #1 at Exhibit B, Tab 1, Schedule 1. Please also see CCC Interrogatory #6 at Exhibit B, Tab 7, Schedule 6 and CME Interrogatory # 6 at Exhibit B, Tab 5, Schedule 6.

Witnesses: P. Hoey
A. Mandyam

SCHOOLS INTERROGATORY #12

INTERROGATORY

[A/1/3, p. 11] Please provide details as to the recovery of these costs from ratepayers, including the allocation of cost responsibility between classes, and the rationale behind such allocation.

RESPONSE

Please see VECC Interrogatory #5 at Exhibit B, Tab 2, Schedule 5.

Witnesses: P. Hoey
A. Mandyam