



Corporate Report

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PDC FEB 28 2011

DATE: February 8, 2011

TO: Chair and Members of Planning and Development Committee
Meeting Date: February 28, 2011

FROM: Edward R. Sajecki
Commissioner of Planning and Building

SUBJECT: **Proposed Review of the Land Use Planning Framework for
Power Generation Facilities**

RECOMMENDATION:

1. That the report titled "Proposed Review of the Land Use Planning Framework for Power Generating Facilities" dated February 8, 2011 from the Commissioner of Planning and Building, be received.
2. That Planning and Development Committee provide staff with direction on a preferred scope for a review of the land use planning framework for power generating facilities as outlined in the report titled "Proposed Review of the Land Use Planning Framework for Power Generating Facilities" dated February 8, 2011 from the Commissioner of Planning and Building.

BACKGROUND: On November 24, 2010, City Council adopted Resolution 0286-2010 stating in part:

"...that the Planning and Building Department is directed to undertake a comprehensive study to review the issue of power generation in the City of Mississauga, subject first, however, to a report from the Department being brought forward to a future Planning and Development Committee meeting no later than

February 28, 2011, outlining and seeking direction on, among other things, the scope of the study, required funds and staff resources to proceed with the study.”

This report details three possible “scopes” for a review of the issue of power generating facilities. In order to understand the possible scopes for a review, background information related to the context in which this issue is being considered is provided.

Mississauga’s Current Land Use Framework for Power Generating Facilities

In July, 2005, City Council directed staff to review both Official Plan policies and zoning regulations to establish appropriate policies and criteria for the location of power generating facilities. The result of that work was the adoption by City Council of Official Plan Amendment 48 in March, 2006 which established the land use planning framework for power generating facilities in Mississauga. At that time, City Council also adopted “Development Conditions and Requirements for Power Generating Facilities” which is used to evaluate power generation applications.

Power generating facilities are currently permitted on lands designated “Industrial”, as well as through Special Site policies on the Lakeview OPG site (Utility designation)¹ and the Greenfield South site on Loreland Avenue (Business Employment designation) as approved by the Ontario Municipal Board (OMB) in 2007. Cogeneration is permitted on the two hospital sites (Trillium and Credit Valley – institutional designation) and the University of Toronto Mississauga (UTM) campus (Institutional designation). In 2001, the OMB approved the development of a gas-fired power generating facility in the Southdown Planning District (Sithe). To date, neither the Loreland site nor the Sithe site has proceeded.

The policies and regulations adopted by City Council remain in place and form the current framework when considering proposals for power generation facilities. Appendix 1 identifies lands where power generation and cogeneration facilities are permitted. Appendix 2

¹ In 2010, the Province of Ontario indicated the OPG site would no longer be used for an electricity generating station and they have dedicated staff resources to moving the issue of remediation and planning for the future use of the site forward.

provides definitions for power generation and cogeneration facilities included in both Mississauga Plan and the proposed New Mississauga Official Plan.

In addition to the Official Plan policies, applicants for proposed power generation facilities are required to address matters such as: air and noise emissions; vibration, water resources, environmental impact; mitigation measures as per technical reports; compatibility with the surrounding community; site plan approval; and that an appropriate separation distance from sensitive land uses be established to the satisfaction of the City. Appendix 3 contains the Development Conditions and Requirements for Power Generating Facilities.

Town of Oakville Land Use Framework for Power Generating Facilities

Recently, the Town of Oakville conducted a similar review of their land use planning framework in response to the Province announcing the development of a gas-fired power plant in the Town.

In September, 2009, the Ontario Power Authority (OPA) announced the development of a 900 megawatt (MW) gas-fired power generating facility on land owned by Ford Motor Company of Canada Limited (Ford) in southeast Oakville near Royal Windsor Drive and Ford Drive. The plant was to be operated by TransCanada Energy Ltd. (TransCanada).

In April, 2010 (with an addendum report in August 2010), Oakville staff released a draft Land Use Policy Study for Power Generation and Cogeneration Facilities. This study formed the basis for official plan amendments and zoning by-laws in assessing proposals for power generation facilities in relation to their appropriate size, type, scale and location. These amendments and zoning by-laws were approved by Town Council in September, 2010 and were appealed to the OMB by both TransCanada and Ford.

The policy framework established to address power generation facilities in the Town of Oakville is generally as follows:

- pre-designation of smaller scale power generation facilities, subject to a rezoning process;
- a site specific approach for large scale power generation facilities (greater than 5 MW) requiring an official plan and zoning by-law amendment;
- a site specific process requiring a number of technical studies to be completed by the applicant demonstrating no adverse impact on existing and proposed development;
- establishment of an appropriate separation distance and additional technical studies if under the minimum distance.

Subsequent to the adoption of the study recommendations and amendments/zoning by-laws to implement these recommendations, the Ontario Ministry of Energy cancelled the TransCanada project in Oakville, as they indicated there was no longer a need for a gas-fired power plant in the southwest GTA. In December 2010, TransCanada formally withdrew their appeals to the Town's amendments and by-laws related to power generation.

Additional Background Information

1. Provincial Legislation

In 2006, amendments were made to the *Planning Act* (Bill 51) in relation to energy provisions. Section 62.0.1 of the *Planning Act* now provides the Province with the ability to exempt undertakings that relate to energy from municipal planning approvals with the passage of a regulation.

Further, Bill 150, the *Green Energy and Economy Act*, May 2009, specifically exempts renewable energy facilities and projects from municipal planning approvals. Renewable energy includes wind, water, biomass, solar, geothermal, etc. The implementing regulations provide requirements for consultation with the municipality and specific requirements that relate to municipalities but, the decision-making authority rests with the Province for renewable energy facilities and projects.

2. Ontario's Long-Term Energy Plan

In November, 2010, the Ontario Ministry of Energy released the 2010 Long-Term Energy Plan which is an update of the 2007 20-year Energy Plan prepared by the OPA. The 2007 plan focused on creating a sustainable energy supply, targeted to improving current natural gas and renewable assets at a sustainable and realistic cost. The new plan (2010) recognizes the need to develop cleaner forms of electricity while fostering a conservation-oriented culture. A transmission solution to maintain a reliable supply of electricity in the southwest GTA will be required.

The Plan is to be finalized in mid-2011 and submitted to the Ontario Energy Board (OEB) for approval. OEB's review is anticipated to be completed by the end of 2012.

3. Oakville-Clarkson Airshed Task Force and Action Plan

In September 2009, Dr. David Balsillie was appointed by the Premier of Ontario to establish a task force to develop solutions to improve air quality in the southeast Oakville and Clarkson areas. The task force completed its work in spring, 2010 and an Action Plan was released in June, 2010. A report on the Action Plan was presented to City Council in September, 2010. The recommendations of that report were to request the Minister of the Environment to provide the government's response to the Action Plan as soon as possible, and the City called upon the Province of Ontario and the Minister of the Environment to consider the recommendations of the Action Plan in reviewing any applications for certificates of approval or any other approval for any industrial activity in the Oakville-Clarkson Airshed.

Staff continues to monitor the progress on the Action Plan and any new initiatives that are deemed to be the responsibility of the City, are being considered as part of the 2011 budget process.

COMMENTS:

A number of studies have been undertaken in the last decade on the issue of power generating facilities. Mississauga currently regulates the location of power generating facilities in both Mississauga Plan and Zoning By-law 0225-2007 as well as in the proposed new Mississauga Official Plan. This framework has been in place since 2006. As indicated previously, the Town of Oakville has recently established a policy framework for evaluating proposals for power generating facilities based on a comprehensive study.

In response to Resolution 0286-2010, the following section outlines three possible scopes for undertaking a review of the current land use planning framework for power generating facilities in the City of Mississauga.

Scope 1: Comprehensive Study

A comprehensive study, similar to the study undertaken in Oakville, would involve retaining an extensive consulting team with specialized expertise in land use and environmental planning related to power generation facilities, air quality and health impacts, ambient air monitoring and modelling and risk assessment.

Once retained, the consulting team and staff will need to work with the Province, the power generating industry, various utilities, agencies, interest groups, other municipalities, the public and City Council. A cross-departmental staff team would be established to advance the project. The timeframe for this type of study could be approximately two (2) years and will depend on critical decisions made by the Province on the various aspects of this issue.

Staff estimate the cost of proceeding with Scope 1, Comprehensive Study, will range between **\$200,000 and \$300,000** in order to retain a multi-disciplinary consulting team and other resources, as required. A project lead by the Planning and Building Department would be assigned, with required input from staff in other departments (e.g. Legal Services, Transportation and Works, Community Services). The estimated budget for a Comprehensive Review is not included in the Planning and Building Department's Business Plan and Budget for 2011.

Scope 2: Peer Review

A consultant could be retained to review the City's existing land use framework for power generating facilities and to review best practices. This peer review would also include an in-depth examination of the study undertaken in Oakville and ongoing initiatives at the Province. Additional expertise may be required to review the technical information included in the Oakville report. This Peer Review will either validate the City's existing land use framework in relation to best practices elsewhere, and/or offer suggestions for addressing gaps that may exist. The Peer Review may take approximately 12 months to complete.

Staff estimate the cost of proceeding with Scope 2, Peer Review, will range between **\$50,000 and \$100,000** to retain a consultant. A project lead from the Planning and Building Department would be assigned, with required input from staff in other departments (e.g. Legal Services, Transportation and Works, Community Services). The estimated budget for a Peer Review is not included in the Planning and Building Department's Business Plan and budget for 2011.

Scope 3: Maintain Current Framework

The current land use planning framework is relatively recent (2006) and addresses the issue of where power generating facilities should be located. As seen on Appendix 1, the "Industrial" land use designation, which permits power generating facilities, is located only on lands in the Southdown and Northeast Planning Districts, with a small amount of designated land in Meadowvale Business Park. As indicated previously, cogeneration facilities are permitted on the two hospital sites and at UTM, which allows these facilities to potentially become self-sufficient in satisfying their own energy needs. The Loreland site has been decided by the OMB. The OPG lands in Lakeview may be redeveloped for alternative land uses in the future.

STRATEGIC PLAN: A review of the land use planning framework for power generating facilities responds to the following Strategic Pillar for change, principle and strategic goals of the City's Strategic Plan:

GREEN: Living Green

Principle – Mississauga is a city that values its shared responsibility to leave a legacy of a clean and healthy natural environment.

Strategic Goals

1. *Lead and Encourage Environmentally Responsible Approaches* – to lead and promote the utilization of technologies and tactics to conserve energy and water, reduce emissions and waste, improve our air quality and protect our natural environment.
2. *Promote a Green Culture* – to lead a change in behaviours to support a more responsible and sustainable approach to the environment, that will minimize our impact on the environment and contribute to reversing climate change.

FINANCIAL IMPACT: **Scope 1:** Staff estimate the cost of proceeding with Scope 1, Comprehensive Study, will range between **\$200,000 and \$300,000**. The estimated budget for a Comprehensive Study is not included in the Planning and Building Department's Business Plan and Budget for 2011.

Scope 2: Staff estimate the cost of proceeding with Scope 2, Peer Review, will range between **\$50,000 and \$100,000**. The estimated budget for a Peer Review is not included in the Planning and Building Department's Business Plan and Budget for 2011.

Scope 3: No financial impact.

CONCLUSION: The issue of power generating facilities and their appropriate location has been a recurrent issue for the last decade. Official Plan Amendment 48, approved by City Council in 2006, established the policy framework for power generating facilities in the City of Mississauga. This framework also includes City Council approved Development Conditions and Requirements for power generating facilities. The

Official Plan policies and the development conditions and requirements remain in place today.

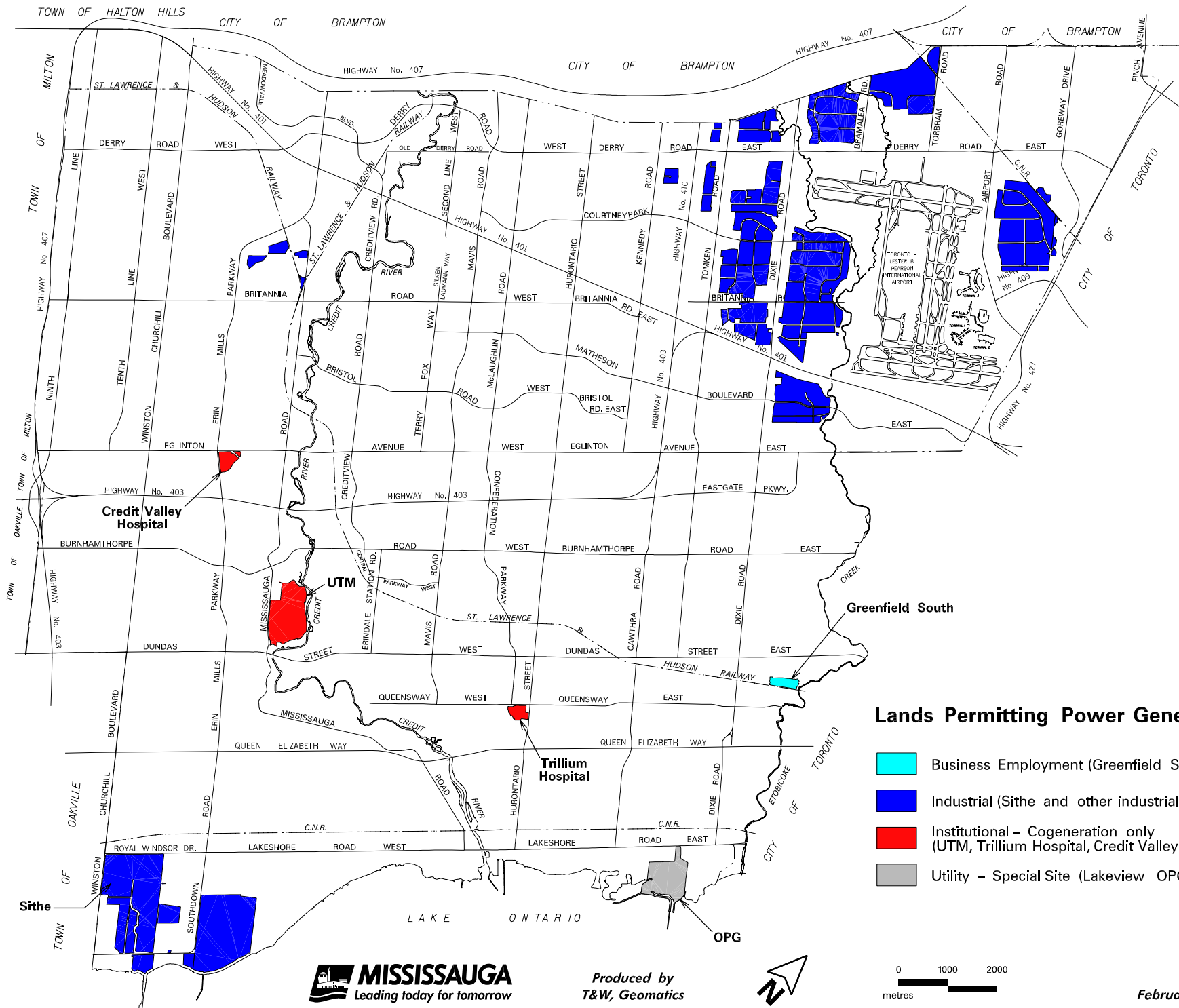
In November, 2010, City Council directed Planning and Building Department staff to further review this issue and consider undertaking a comprehensive study to address this issue. This report outlines three possible scopes for proceeding with a review of power generation facilities and provides an overview of the current context related to this issue.

ATTACHMENTS:	APPENDIX 1:	Lands Permitting Power Generation.
	APPENDIX 2:	Definitions of Power Generation and Cogeneration Facilities.
	APPENDIX 3:	City of Mississauga – Power Generating Facilities – Development Conditions and Requirements, March, 2006.

Original Signed By:

Edward R. Sajecki
Commissioner of Planning and Building

Prepared By: Karen Crouse, Community Planner, Policy Planning Division



Lands Permitting Power Generation

- Business Employment (Greenfield South)
- Industrial (Sithe and other industrial lands)
- Institutional – Cogeneration only (UTM, Trillium Hospital, Credit Valley Hospital)
- Utility – Special Site (Lakeview OPG Lands)



Produced by
T&W, Geomatics



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Definitions of Power Generation and Cogeneration Facilities

Mississauga Plan

COGENERATION

means the production of heat energy and electrical or mechanical power from one (1) fuel source in the same facility.

COGENERATION FACILITY

means a building or structure or parts thereof used for the production of electrical power, where the method of production is by means of ***cogeneration***.

COMBINED CYCLE

means a generation technology in which electricity is produced from an integrated cycle comprised of one (1) or more gas combustion turbines where steam is generated through the recovery of thermal energy in the exhaust flow of the combustion turbine(s) to power the steam turbine.

POWER GENERATING FACILITY

means a building or structure used for the production of electrical power, where output is ten (10) megawatts or greater and where the method of production is limited to natural gas fired, ***combined cycle, cogeneration*** and ***renewable energy***.

RENEWABLE ENERGY

means the production of electrical power from an energy source that is renewed by natural processes including, but not limited to, wind, water, a biomass resource product, or solar and geothermal energy.

Proposed New Mississauga Official Plan

COGENERATION

means the generation two or more of heat energy, electrical power and mechanical power from one fuel source, such as gas or renewable sources, but excluding oil, coal and nuclear.

MAJOR POWER GENERATING FACILITY

means a building or structure used for the generation of electrical power, where output is ten megawatts or greater and where the method of production is limited to: renewable energy; natural gas-fired; and cogeneration. Natural gas-fired means the generation of electrical power through the combustion of natural gas and may include singlecycle, combined-cycle and cogeneration technologies.

MINOR POWER GENERATING FACILITY

means a building or structure used for the generation of electrical power, where output is less than ten megawatts and where the method of production is limited to: renewable energy; the combustion of natural gas, oil and propane; and cogeneration.

RENEWABLE ENERGY

means the generation of electrical power from an energy source that is renewed by natural processes including, but not limited to, wind, water, biomass, biogas, biofuel, solar energy or geothermal energy.

**City of Mississauga
Power Generating Facilities
Development Conditions and Requirements
March, 2006**

Conditions reflecting the following will be developed with the City of Mississauga, the Region of Peel and Province of Ontario specific to each development.

Part A – refers to those matters which the City of Mississauga will implement via its jurisdiction for Official Plan Amendments, Zoning By-law Amendments, Site Plan Applications and Committee of Adjustment applications, as applicable.

The City of Mississauga will require the following:

1. That a qualified consultant review the applicant's technical reports including, but not limited to: air and noise emissions; vibration; water resources; environmental impact; and best available technology. The City shall select the peer review consultant, however, the consultant costs will be borne by the applicant. Terms of reference for the peer review consultant's work shall be defined in consultation with the applicant and shall be directed to accuracy, completeness and conformity to currently applicable standards. The purpose of the Consultant's work shall be to provide a review of the applicant's project and not address alternative projects or methods of power generation.
2. That all mitigation commitments be implemented as set forth in the reports, as including those approved by the City and Region, surrounding air and noise emissions; vibration; water resources and environmental impacts.
3. That alternate fuels must not be utilized at the facility, except in emergency situations or as subsequently approved by the City. "Alternative Fuels" are defined as secondary or back-up fuel(s) for 'use' by the facility during "emergency conditions" when the natural gas system is not available or when 'use' is directed by the Ontario Power Authority (OPA). The terms surrounding 'use', including a definition for 'use', shall be requested to be incorporated into the Ministry of Environment Certificates of Approval and the OPA contract. Any application to use different fuels in the future would require involvement in the Environmental Assessment process.
4. That the facility shall not result in any plume-related fogging or icing of public roads and other sensitive land uses. The applicant commits to conduct a plume study as part of the environmental report (if applicable) to the satisfaction of the City of Mississauga.
5. That the facility be designed and constructed to implement applicable Emergency Response Plan requirements.
6. That careful attention in terms of architectural and urban design characteristics be given to all details in the design and review of the applicant's power generating facility to ensure compatibility with the existing community.
7. That all applications for power generating facilities be subject to Site Plan Approval.
8. That an appropriate separation distance from sensitive land uses be established to the satisfaction of the City of Mississauga.

Part B – recommended for implementation by the Region or Province, as applicable, to be imposed as conditions in the Request for Proposal and approval for the construction and operation of a power generating facility.

1. That a Contingency Plan shall be prepared and implemented, which will identify appropriate warnings and required actions by the applicant related to any plume-related fogging or icing of public roads and other sensitive land uses related to the project. This will be a part of the plume study performed as part of the Ministry of Environment's Environmental Assessment process.
2. That a Community Advisory Committee shall be formed, to provide input on the concerns of the local community regarding impacts from the construction and operation of the facility. The scope and membership structure of the Committee will be determined in consultation with the applicant, the community and the City. The applicant will fund the reasonable operational expenses of the Committee in accordance with a budget to be established annually by the Committee.
3. That the applicant agrees that any provincial, federal or other agency approvals issued for a facility shall contain all the appropriate mitigation commitments.
4. That the applicant agrees that, as new proven air quality technologies become available, they will be evaluated and implemented within the normal course of facility upgrades and maintenance.
5. That the applicant agrees to contribute to local air quality and community improvement initiatives in consultation with the City.
6. That the applicant agrees to postpone testing of back-up diesel generators during smog days, where feasible, and only during weekday and daytime hours.
7. That the Province provide incentives to companies to pursue 'cogeneration' opportunities as they become available.
8. That the Region of Peel require a Health Risk Assessment Report. The Region may require that a peer review consultant review the Health Risk Assessment report and the cost shall be borne by the applicant.
9. That the Ministry of Environment in consultation with the City, require the applicant to perform an acoustic audit, a source testing program, stack testing and water monitoring.
10. That an Ambient Air Quality Monitoring Program be established, as approved by the City and the Region.
11. That the facility be constructed utilizing proven new and clean emission control technology in accordance with the requirements of the Ministry of Environment's Environmental Assessment process.
12. That the applicant develop and implement an Emergency Response Plan in consultation with the City and the Region. This plan shall be updated on an annual basis.