

TORONTO STAFF REPORT

August 31, 2006

To: Policy and Finance Committee

From: Chief Corporate Officer

Subject: Status Report on the Energy Plan for Toronto - Second Update
(All Wards)

Purpose:

To provide information on the work plan to develop the Energy Plan for Toronto and an update on the progress being made to meet the 300 megawatt conservation and demand management Toronto target.

Financial Implications and Impact Statement:

The resources required to undertake the development of the Energy Plan for Toronto are the subject of a separate report to the Budget Advisory Committee, meeting of September 15, 2006.

Recommendation:

It is recommended that this report be received for information.

Background:

At its meeting on June 27, 28 and 29, 2006, City Council considered the report entitled “Status Report on the Energy Plan for Toronto – Update” (Clause No. 20 of Report No. 5 of the Policy and Finance Committee) and adopted several recommendations, including the recommendation for the Deputy City Manager and Chief Financial Officer to report back through the Roundtable on the Environment at its September 6, 2006 meeting and to the Policy and Finance Committee at its September 18, 2006 meeting on a detailed work plan for the implementation of the final Energy Plan for Toronto. Recommendation #14 of the above noted report directed that an Energy Plan be also developed for Transportation, within the context of the New City of Toronto Act.

Comments:

On August 1, 2006, the Independent Electricity System Operator reported that Ontario had set a new all-time record for electricity demand of 27,005 megawatts at 5:00 p.m., which surpassed the previous record of 26,160 megawatts set on July 13, 2005. In response to this all new record for electricity demand, the Independent Electricity System Operator issued a Power Warning due to extreme temperatures which were causing a strain on the system. The Power Warning asked consumers to reduce their use of electricity throughout the day in order to alleviate the increased strain on Ontario's electricity system. This Power Warning was extended to August 2, 2006.

Recently the Independent Electricity System Operator introduced a new market mechanism to better manage the reliability of the system including the Emergency Load Reduction Program (ELRP). Toronto Hydro-Electric System Limited, as well as other corporations participating in the Emergency Load Reduction Program are committed to reducing up to 69 megawatts, if called upon to do so by the Independent Electricity System Operator.

The recent events noted above continue to reinforce the identified need for an Energy Plan for Toronto.

The Energy Plan for Toronto will provide a detailed framework for advancing the City from its current state of energy use to the preferred state of energy sustainability. Its preparation will evaluate options for efficient use of energy and increasing the use of renewable energy. Its conclusions will propose a plan that will be implemented over the next 20 years. The Plan will include ways to stay on track in creating and acting on programs to reach the preferred state of energy sustainability. It will also coordinate with other related City of Toronto initiatives such as the Renewable Energy Action Plan, Clean Air Action Plan, Toronto Environmental Plan Update 2006, the Toronto Green Development Standard 2006, Water Efficiency Program, Green Economic Work Plan and the Toronto Waterfront Revitalization Corporation's Sustainability Framework.

The development of an Energy Plan for Transportation will be the subject of a separate report at a later date and will be co-ordinated with the above mentioned initiatives.

Preparation of the Energy Plan will require knowing where we are now, based on who uses the energy (multi-residential, industrial, commercial or institutional), type of energy used (natural gas, electricity or other) and the purpose of the energy use (heating/cooling, lighting, appliances or processes). A draft work plan for the Energy Plan is attached in Appendix A.

A great deal of energy use information has been obtained and already reported in the IndEco Strategic Consulting Incorporated Report appended to the "Status Report on the Energy Plan for Toronto – Update" (Clause No. 20 of Report No. 5 of the Policy and Finance Committee). Further investigation is needed to complete the existing energy use picture, particularly the prediction of energy use. This information is not readily available and getting it will require technical expertise. Since this is an important foundational element in the development of the Energy Plan, it is necessary that the work involved is started as soon as possible pending the hiring of external consultants.

The Energy Plan will examine energy use and match it with the implementation of sustainable energy practices. Achieving a sustainable approach to energy will include emphasizing energy conservation, demand management and low-impact renewable energy sources. Sustainable energy can include environmentally sound energy production, affordable energy sources and adoption of energy efficiency technologies and activities.

The barriers to implementation of the sustainable approaches will be itemized and programs to overcome the barriers will be determined. Resources and a schedule for implementation will be established. The implementation needs for achieving sustainable energy use will coalesce into broad scale programs. These programs will have conservation targets for the Corporate City and the community, broken down by sector (multi-residential, commercial, institutional, industrial).

Appendix B lists preliminary Energy Plan components from the IndEco Report. Some of these initiatives are underway and the further promotion and development will be integrated into the Energy Plan. The IndEco Report provided detailed analysis of four components: renewable energy, district energy grids, distributed energy generation and Better Buildings New Construction Program. Information on the potential for other components must be obtained. This requires determining current energy use information, applying conservation and demand management practices to achieve energy savings, determining the supporting broad scale programs and the barriers to implementation. Cost-benefit analysis, financial mechanisms and barriers assessment will require market investigation and expert technical knowledge that will require engaging technical and professional services.

An important aspect of developing the Energy Plan is public consultation. There are considerable technical and marketing knowledge and skills that can be accessed in the community that will contribute immeasurably to the Plan. The consultation list for the Energy Plan is attached in Appendix C. It is worthwhile to note that consultation process has begun with some of the organizations listed in Appendix C and ongoing consultations will take place during the development of the Energy Plan. As well, consumers of energy must be fully involved for the Energy Plan to work. Using a mix of appropriate methodologies, the public will be consulted on what interest they have in participating in energy conservation and demand management, the barriers they perceive, and ideas that they could contribute towards achieving a preferred state of energy sustainability.

To support the public consultation process, promote sustainable energy use and inform the people of Toronto and other jurisdictions about the efforts the City is making in the areas of energy conservation, demand management and the generation of renewable energy a communication program will be undertaken.

Communications strategies for the Energy Plan will be developed for each phase of the Energy Plan to support the public consultation process, announce the adoption of the final plan and advocate implementation of the Energy Plan.

The strategies will follow a framework being created by Finance and Administration Communications. The framework will set the tone, approach and messaging throughout the process. Communications, among other things, will promote sustainable energy use, encourage public involvement and inform Toronto residents and other stakeholders about the efforts the

City is making in energy conservation and demand management and the generation of renewable energy.

Finance and Administration Communications will also ensure Energy Plan communications link to existing programs and plans (for example the Energy Retrofit Program, Green Fleet Transition Plan, Environment Plan, etc.) to ensure cohesive messaging throughout the City. Communications units from across the City will also be involved in Energy Plan communications planning to ensure all related programs and plans support the Energy Plan and vice versa.

It will be necessary to investigate what tools are required and the appropriate role that the City of Toronto will play, as a consumer, advocate program deliverer and regulator. Benchmarking will be conducted which will utilize such methods as monitoring, measuring, evaluating, verifying and reporting results and the progress that has been made in the development of the Energy Plan. An example table of contents for the Energy Plan is attached as Appendix D.

In a report to Budget Advisory Committee, the funds required to undertake the preparation of the Energy Plan are being requested. Subject to Council approval of funding, requests for proposals (RFP) will be issued for:

- engaging a firm to obtain current energy use and predicted energy use information;
- technical advisors for available technologies in conservation and demand management and renewables;
- financial analysis for determining payback periods, lifecycle costing and tools to incent participation;
- the design and implementation of marketing of programs;
- designing the evaluation and monitoring methodology; and,
- communications and promotion.

In conjunction with the Energy Plan, Toronto has a major role in the 300 megawatt Toronto target that was established by the Ministry of Energy. A Memorandum of Understanding between the City of Toronto and the Ontario Power Authority confirming the intention to develop and implement conservation and demand management programs and projects has been executed. The City intends to focus on, among others, the following initiatives:

- a program including, among others, financial incentives targeting commercial and retail business conversions to improve energy conservation;
- a program including, among others, financial incentives targeting residential, commercial and retail conversions to renewable energy and green building standards;
- funding to expand existing City energy programs, and;
- creation of a Conservation Fund for ongoing conservation and demand management initiatives.

In support of these initiatives, specific proposals under consideration for submission to the Ontario Power Authority to obtain financial support include:

- (1) the expansion of the existing Better Buildings Partnership;
- (2) the expansion of the Better Buildings New Construction Program to provide targeted incentives;
- (3) Better Buildings Partnership (Industrial Sector);
- (4) Residential (washing machines);
- (5) Hand held monitors;
- (6) Education/energy forum (active presentation), which should look at social marketing, presentation skills, partnerships (on-site);
- (7) Electrically heated apartment buildings;
- (8) Humber Treatment Plant, Ashbridges Bay Treatment Plant, Thackeray Landfill;
- (9) Toronto Transit Commission (TTC), Toronto Zoo, the Toronto District School Board and the Toronto Catholic District School Board;
- (10) Demand Response; and,
- (11) City Facilities Retrofits

The creation of a Toronto Conservation Reserve Fund is also specified in the Memorandum of Understanding. This reserve fund will be available to fund the incremental cost of conservation and demand management projects and contribute to the funding for renewable energy projects. The fund will be replenished from energy savings or generation revenue. Further details of the operation of the Fund will be developed in conjunction with the Ontario Power Authority.

Conclusion:

A further status report will be submitted in winter 2007 with the final Energy Plan for the City of Toronto to be completed by summer 2007.

Contact:

Jodie Parmar
Director, Business & Strategic Innovation
Facilities & Real Estate
Telephone: 416-338-1295
E-mail: jparmar@toronto.ca

Chuck Donohue, P.Eng.
Executive Director
Facilities & Real Estate
Telephone: 416-397-5151
E-mail: cdonohue@toronto.ca

Bruce Bowes, P.Eng.
Chief Corporate Officer

(P:\2006\Fin\F&re\Ad06154F&re) – fi

List of Attachments:

- Appendix A Work Plan Outline for the Energy Plan for Toronto
- Appendix B IndEco Strategic Consulting Incorporated – Preliminary Energy Plan Components
- Appendix C Preliminary Consultation List for the Energy Plan for Toronto
- Appendix D Draft Energy Plan Table of Contents

Appendix A

Work Plan Outline for the Energy Plan
For the City of Toronto
2006 to 2007

(Insert Appendix A – Chart)

Appendix B

IndEco Strategic Consulting Incorporated Preliminary Energy Plan Components

Very urgent and easy to implement (2010)

- Re-invest the savings from Corporate City Conservation and Demand Management (CDM) and renewable energy projects to contribute to the capital and operational costs of green power for the Corporate City's use (EP-34d), consistent with Renewable Energy Action Plan
- Host renewable and Conservation and Demand Management (CDM) demonstration projects (e.g. Exhibition Place)
- Implement Green Roofs Program
- Implement Better Buildings New Construction Program
- Give priority to proposals that meet Conservation and Demand Management (CDM) targets
- Use Toronto Hydro rates/incentives to aid Conservation and Demand Management (CDM)
- Collect and track energy use proposed for new construction and retrofits in Toronto
- Expand BBP retail/hospitality program
- Expand BBP to the Municipal, Universities, Schools, Hospitals (MUSH) sector
- Implement Conservation and Demand Management (CDM) campaigns with industry stakeholders; CDM self assessment, residential website resource centre, residential energy awareness, low-income programs, employee energy efficiency program, ABC program, Mayor's Megawatt Challenge
- Encourage all ABC and Division building projects to be done through the Energy Retrofit Program (ERP) and BBP
- Create Green Development Standard
- Designate new development areas as model communities to display innovative Conservation and Demand Management (CDM) and renewable technologies
- Implement THESL Programs; co-branded mass market program (PowerWISE), refrigerator buyback program, social housing program, energy audits and feasibility studies for commercial, industrial and institutional customers, expand BBP Partnership Loan Program with TAF, expand CDM to go beyond 5% peak load reduction target
- Implement Exhibition Place Programs; Exhibition Place Wind Turbine, Green Roof at the Horse Palace, Hydrogen Village, Tri-generation System, Photovoltaic Power Generation Plant, Energy Efficiency Retrofits
- Set up a number of district energy grids - to provide electricity, heating and cooling systems with high distribution and utilization efficiencies
- Implement the economic conversion of diesel standby generators to dispatchable cleaner generation
- Assess opportunities from City of Toronto Act
- Expansion of Toronto Public Health's social marketing campaign "20/20 The Way to Clean Air"

- Develop green energy procurement policy, consistent with Renewable Energy Action Plan (moved from 2015 to 2010)

Urgent and easy to implement, but may require some additional effort measures (2015)

- Provide access to appropriate space, favourable leases, and low-cost financing to “green energy generators and users”, consistent with Renewable Energy Action Plan
- Promote the benefits of the green energy economy to the public and private sectors (EP-38f), consistent with Renewable Energy Action Plan
- Use full life cycle analysis for energy related capital goods, to ensure that new capital investment reflects a commitment to sustainability
- Develop submission to Council to propose expansion of green power target to Toronto
- Implement building design challenge (e.g. create energy efficiency condominium competition)
- Impose mandatory requirement that new development meet at least MNECB+25%.

Pending

Green Development Standard

- Create policy to require all new large developments in Toronto, ABCs and Divisions to use district heating & cooling where feasible
- Increase understanding and awareness of green energy buildings in communities in Toronto
- Develop innovative ways to fund green energy buildings
- Implement BBP institutional, commercial, industrial and multi-residential programs; feasibility study assistance and technology transfer
- Provide industrial energy assessment services and consultants partnership
- Provide marketing and technical support services
- Provide Divisions and ABCCs with information on the costs of energy use
- Use life cycle analysis when evaluating energy infrastructure and services
- Present City of Toronto's Green Toronto Awards on an annual basis
- Provide energy efficiency training & technical support

Not as urgent and may not be as easy to implement measures (2030)

- Create markets for Conservation and Demand Management (CDM) and renewable energy products, consistent, with Renewable Energy Action Plan
- Use sliding scale building permit fee based on energy efficiency
- Advocate increased training on Conservation and Demand Management (CDM) for energy professionals, contractors, architects & engineers
- Create a policy to designate certain new developments as net energy producers based on green energy
- Implement strategy for emissions trading that is environmentally sustainable and protective of health
- Implement BBP ICI and multi-residential programs; sustainability awards program, promotional program with key stakeholders
- Implement BBP home services Conservation and Demand Management (CDM) program with local contractors
- Use solar powered lights in all transit shelters

Appendix C

Consultation List for Energy Plan for Toronto

All Corporate City of Toronto Divisions
Association of Power Producers of Ontario (APPrO)
Board of Trade (BOT)
Building Owners and Managers Association (BOMA)
Central Canada Chapter – Commercial Investment Real Estate Institute
Canadian Institute for Environmental Law & Policy (CIELAP)
Canadian Standards Association (CSA)
Centennial College
Clean Air Toronto
Design Exchange
Economic Development Office
Electrical Safety Authority (ESA)
Enbridge Gas Distribution
Energy Probe
Enterprise Toronto
Enwave Energy Corporation
Exhibition Place
Federation of Canadian Municipalities (FCM)
For Rent By Owner (FRBO)
George Brown College
Greater Toronto Homebuilders Association (GTHA)
Greater Toronto Hotel Association
Greenpeace
GreenSaver
Habitat For Humanity
Hydro One
Independent Electric System Operator (IESO)
Industry Canada
International Council for Local Environmental Initiatives (ICLEI)
Low Income Energy Network (LIEN)
Ministry of Energy
Ministry of the Environment
Ministry of Health
Ministry of Municipal Affairs and Housing
Natural Resources Canada (NRCan)
Ontario Chamber of Commerce
Ontario Convenience Stores Association
Ontario Energy Board (OEB)
Ontario Environmental Industry Association
Ontario Power Authority (OPA)
Ontario Power Generation (OPG)
Ontario Recreation Facilities Association

Ontario Restaurant Hotel & Motel Association
Pollution Probe
PM Rentals
Prospectors and Developers Association of Canada
Retail Council of Canada
Ryerson University
Seneca College
Social Housing Services Corporation (SHSC)
Sustainable Development Technology Canada (SDTC)
Technical Standards and Safety Authority (TSSA)
The City of Toronto Economic Development Corporation (TEDCO)
Toronto Atmospheric Fund (TAF)
Toronto Catholic District School Board (TCDSB)
Toronto Community Housing Corporation (TCHC)
Toronto District School Board (TDSB)
Toronto Environmental Alliance (TEA)
Toronto Housing Association of Tenants (THAT) Corporation
Toronto Hydro Corporation
Toronto Hydro Energy Services Inc. (THESI)
Toronto Industry Network
Toronto Public Library (TPL)
Toronto Real Estate Board – Residential and Commercial
Toronto Regional Conservation Authority (TRCA)
Toronto Transit Commission (TTC)
Toronto Waterfront Revitalization Corporation (TWRC)
University of Toronto
World Wildlife Fund (WWF)
York University

Appendix D

Draft Energy Plan Table of Contents

- Acknowledgements
- Table of Contents
- Executive Summary
 - Chapter 1 – Development of an Energy Plan
 - Chapter 2 – Energy Supply System
 - Chapter 3 – Forecasting Energy Demand
 - Chapter 4 – Energy Conservation and Demand Management
 - Chapter 5 – Renewable Energy Sources
 - Chapter 6 – Analysis of Energy Savings and Costs
 - Chapter 7 – Implementation and Progress Assessment
 - Chapter 8 – Summary and Recommendations
 - Chapter 9 – Conclusions

- Appendix 1 – Peer Review
- Appendix 2 – Public Attitude Survey
- Appendix 3 – Public Consultation (Public Advisory Committee)
- Appendix 4 – Public Workshop
- Appendix 5 – Focus Group Discussions

September 5, 2006

To: Policy and Finance Committee

From: Planning and Transportation Committee

Subject: Increase to Purchase Order (P.O.) 6013516 for Legal Services
(Report 6, Clause 26(d))

Recommendation:

The Planning and Transportation Committee recommended to the Policy and Finance Committee, and City Council, the adoption of the staff recommendations in the Recommendations Section of the report (August 21, 2006) from the Chief Planner and Executive Director, City Planning, City Solicitor and Director, Purchasing and Materials Management.

Background:

The Planning and Transportation Committee, at its meeting held on September 5, 2006, considered a report (August 21, 2006) from the Chief Planner and Executive Director, City Planning, City Solicitor and Director, Purchasing and Materials Management, to obtain approval to increase the Purchase Order 6013516 for legal services associated with the approval of the Official Plan.

Recommendations:

It is recommended that:

- (1) Council approve an increase of \$425,000.00 including GST to Purchase Order 6013516 to provide for a total of \$975,000.00 to cover the expenses of the law firm of Ritchie, Ketcheson, Hart and Biggart associated with the approval of the Official Plan which is before the Ontario Municipal Board;
- (2) staff be authorized to increase the Purchase Order 6013516 by an additional \$275,000.00 in 2007 up to the full budget amount of \$1,250,000.00 previously approved by Council if required; and
- (3) the appropriate City officials be authorized and directed to take the necessary action to give effect thereto.

(for) City Clerk

B. Henderson/dt
20060905-it016

Report (August 21, 2006) from the Chief Planner and Executive Director, City Planning

Purpose:

To obtain approval to increase the Purchase Order 6013516 for legal services associated with the approval of the Official Plan.

Financial Implications and Impact Statement:

The amendment to the current SAP Contract No. 6013516 will result in an increase of \$425,000.00 from \$550,000.00 to \$975,000.00 inclusive of all taxes and charges to cover the legal expenses associated with the approval of the Official Plan which is before the Ontario Municipal Board. The contract value net of GST will be \$919,811.32.

Funds in the amount of \$1,249,534 net of GST for legal services for the Official Plan were previously approved by Council as part of the Capital Budget process and exist in City Planning Capital Account CUR901-2 (OMB Legal Costs).

Recommendations:

It is recommended that:

- (3) Council approve an increase of \$425,000.00 including GST to Purchase Order 6013516 to provide for a total of \$975,000.00 to cover the expenses of the law firm of Ritchie, Ketcheson, Hart and Biggart associated with the approval of the Official Plan which is before the Ontario Municipal Board;
- (4) Staff be authorized to increase the Purchase Order 6013516 by an additional \$275,000.00 in 2007 up to the full budget amount of \$1,250,000.00 previously approved by Council if required; and
- (5) the appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

Background:

The legal firm of Ritchie, Ketcheson, Hart and Biggart was retained in 2002 by Legal Services to assist the City in obtaining both the Ministry of Municipal Affairs and the Ontario Municipal Boards' approval of the new Official Plan. The letter of retention for the firm referenced two phases with respect to the approval of the Official Plan. Phase 1 consisted of all legal counsel duties associated with the Official Plan prior to the enactment of the Official Plan by Council. A Purchase Order was issued to cover the costs associated with Phase 1.

Funding for Phase 2 was subsequently approved by Council in the amount of \$1,250,000.00 for this project. The Purchase Order was subsequently amended to cover the legal expenses associated with the approval of the new Official Plan before the Ministry of Municipal Affairs and Housing and the Ontario Municipal Board. However, as amended the Purchase Order was established in an amount of up to \$500,000.00.

Comments

The Ontario Municipal Board hearing on the Official Plan is continuing, with the Board scheduled to hear evidence with respect to a number of outstanding matters, including the Housing and Section 37 policies, and numerous site specific appeals. In order to provide for the continued defense of the Official Plan the Purchase Order needs to be increased to cover the City's legal expenses.

Any further amendment to increase the Purchase Order beyond \$500,000.00 requires Council approval. In order to ensure that the City can continue to pay for the legal costs associated with the Official Plan's approval, the Purchase Order needs to be amended by an additional \$425,000.00 to cover costs associated with the continuing Ontario Municipal Board hearing.

The \$425,000.00 increase will be funded from the 2006 Approved Capital Budget for City Planning Capital Account CUR901-2 (OMB Legal Costs).

Conclusions:

Approval is required from City Council to increase Purchase Order 6013516 by \$425,000.00 (including GST) to \$975,000.00 in order to pay outside solicitors to continue to defend the Official Plan before the Ontario Municipal Board. Sufficient funds exist in the Official Plan Capital Budget CUR901-2 to provide for the continued retainer of the firm, Ritchie, Ketcheson, Hart and Biggart.

In addition, it is being recommended that staff be authorized to increase the Purchase Order by an additional \$275,000.00 in 2007 up to the \$1,250,000.00 if required in order to conclude the hearing.

Contact:

Barbara Leonhardt
Director, Policy and Research
City Planning Division
Tel: 416-392-8148
Fax: 416-392-3821
bleonha@toronto.ca

Robert Balfour
Solicitor
Legal Services
Tel: 416-392-7225
Fax: 416-397-4420
rbalfour@toronto.ca

Victor Tryl
Manager
Purchasing and Materials Management
Tel: 416-397-4801
Fax: 416-392-8411
vtryl@toronto.ca



City Clerk's Office

Secretariat
Betty Henderson
Planning and Transportation Committee
City Hall, 10th Floor, West
100 Queen Street West
Toronto, Ontario M5H 2N2

Ulli S. Watkiss
City Clerk

Tel: 416-392-8088
Fax: 416-692-1879
e-mail: bhender1@toronto.ca
Web: www.toronto.ca

Ted Tyndorf
Chief Planner and Executive Director
City Planning Division

Anna Kinastowski
City Solicitor
Legal Services

Lou Pagano, P. Eng.
Director
Purchasing & Materials Management

[p:/2006/Uds/pln/pt063984.pln] - st

