

Proposed Wastewater Energy Transfer Project at Bathurst & Dundas

Date: September 23, 2020

To: City Council

From: Deputy City Manager, Corporate Services

Wards: 10 and 11

REASON FOR CONFIDENTIAL INFORMATION

The attachment to this report is about *criteria* to be applied to any negotiations carried on or to be carried on by or on behalf of the City of Toronto.

SUMMARY

This report seeks Council authorization to revise the approach for a proposed project for wastewater thermal energy transfer at Bathurst and Dundas that would provide thermal energy to the Toronto Western Hospital and require access to the City's sewer infrastructure, right-of-way, and property (Scadding Court Community Centre).

City Council had provided direction for this project in an October 2019 decision involving a pilot at Sunnybrook Hospital near Bayview and Lawrence Avenues. When Council allowed for the project site to change to Toronto Western Hospital at Bathurst and Dundas Streets in December 2019, the need soon arose to significantly modify aspects of the project including the duration and to develop a term sheet to guide the negotiation of the necessary agreements. Consequently, City staff now seeks Council direction to rescind the October 2019 decision and replace it with the approach set out in the attached term sheet. With this new direction needed less than a year after the October 2019 decision, Council will need to first reopen the matter to make these adjustments.

As indicated in the attached term sheet, the City's main role is to provide access to sewer infrastructure. The role of the energy company undertaking the project -- Noventa Toronto Western L.P. -- is to design, finance, construct, own, and operate the energy system, largely at its own risk.

Benefits to the City from the project include:

- **TransformTO implementation:** to 90% of natural gas use reduction (fossil fuel) with an annual emission reductions of over 7,500 tCO₂e (GHG emissions).
- **Economic stimulus:** construction of local energy infrastructure to commence in early 2021. An annual energy transfer fee paid to the City of Toronto, once in operation
- Potential **low-carbon heating and cooling for the Scadding Court pool and arena** which have seasonally counter/synergistic energy use to the Hospital energy use, and potential Urban Innovation Centre in partnership with community stakeholders

RECOMMENDATIONS

The Deputy City Manager, Corporate Services recommends that:

1. City Council rescind Council Decision 2019.IE7.10 in its entirety.
2. City Council rescind Council Decision 2019.MM13.10 in its entirety.
3. City Council authorize the Deputy City Manager, Corporate Services or designate, in consultation with the General Manager, Toronto Water, to negotiate, enter into and execute a Wastewater Energy Transfer Agreement with Noventa Toronto Western L.P., and any other agreements necessary to give effect thereto, generally in accordance with the terms and conditions set out in the Attachment 1 and Confidential Attachment 2 to the report (September 23, 2020) from the Deputy City Manager, Corporate Services, and upon such additional terms and conditions satisfactory to the Deputy City Manager, Corporate Services, and in a form satisfactory to the City Solicitor.
4. City Council authorize the General Manager, Transportation Services or designate, to negotiate, enter into, and execute any necessary agreements with Noventa Toronto Western L.P., to permit access to and occupation of the City's public highway impacted by the project, on terms and conditions satisfactory to the General Manager, Transportation Services, and in a form satisfactory to the City Solicitor.
5. City Council request the Chief Planner and Executive Director, City Planning Division, to initiate an Official Plan amendment, to permit a disposal in excess of 21 years for the proposed energy transfer system described in the report (September 23, 2020) from the Deputy City Manager, Corporate Services, within lands designated Parks and Open Space, and to consult with the appropriate city divisions and local councillor including a community consultation process.
6. City Council direct the Deputy City Manager, Corporate Services or designate, in consultation with the General Manager, Toronto Water, to include a progress update on this project and the status of wastewater energy transfer initiatives to reduce emissions,

in the required periodic reporting to Council on TransformTO, and to use such reported information to develop a wastewater energy transfer policy as requested by City Council.

7. City Council direct that Confidential Attachment 2 remain confidential as it contains a combination of commercial and financial information supplied in confidence to the City, which, if disclosed, could reasonably be expected interfere significantly with the contractual or other negotiations of an organization; financial information that belongs to the City and has monetary value or potential monetary value; and positions, plans, procedures, and criteria to be applied to a negotiation carried on by the City.

FINANCIAL IMPACT

There will be no financial cost to the City of Toronto. Costs related to the design, construction, operation and maintenance of the Noventa system will be the responsibility of Noventa Toronto Western LP.

In turn, the City will realize net-new revenue in the form of an energy transfer fee from Noventa Toronto Western LP from 2022 to 2052.

The negotiated term sheet also allows for identifying potential for additional benefits to the City, from this potential project locating on Scadding Court property, such as low-carbon heating and cooling for the pool and arena which have seasonally counter/synergistic energy use to the Hospital's seasonal energy use. In addition, there will be significant greenhouse gases reduction from fossil fuel use reduction, and local economic stimulus, as well as, laying the foundation for a standard offer program for subsequent projects of wastewater energy transfer resulting in multiplied benefits and revenues to the City.

Any financial and other benefits will be assessed once the project becomes operational and reported back to Council.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial implications as identified in the Financial Impact section.

DECISION HISTORY

On October 2, 2019 Council adopted IE7.10 approving trial Wastewater Energy Transfer project by Noventa Energy Partners Inc, as amended on December 19, 2019 (MM13.10).

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE7.10>

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.MM13.10>

At its meeting on October 2, and 3, 2019, City Council adopted Item MM10.3 entitled "Declaring a Climate Emergency and Accelerating Toronto's Climate Action Plan". City Council endorsed a net zero greenhouse gas emissions target that is in line with

keeping global average temperature rise below 1.5 degrees Celsius, immediately strengthening Toronto's goal of becoming net zero before 2050, and City Council requested the Director, Environment and Energy to report back by the fourth quarter of 2020 on the feasibility of actions that could achieve net zero by 2040. The City Council <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.MM10.3>

At its meeting on May 24, 25, 26, 2017 City Council adopted TransformTO: Climate Action for a Healthy, Equitable and Prosperous Toronto - Report 2 - The Pathway to a Low Carbon Future to the year 2050. Development of low-carbon thermal energy systems, including sewer heat recovery is a fundamental component for the City to meet its 2050 GHG reduction target. <http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.PE19.4>

At its meeting on July 23, 24, 25, 26, 27 and 30, 2018, Council adopted the expansion of the Sustainable Energy Plan Financing program eligibility to include building owners in the academic, social, health care, industrial, and commercial sectors, including privately-owned buildings and condominium buildings (not individual residential units) located within the City of Toronto in accordance with the amended program eligibility criteria set out in Attachment 2 to the report (June 27, 2018) from the Deputy City Manager, Corporate Services, financed through recoverable debt, consistent with the existing interest rate policy of an interest rate equivalent to the City's estimated cost of borrowing, including related administrative costs, and for a maximum term of 20 years. City Council express its deep concern with the provincial cuts to programs that reduce greenhouse gases and the withdrawal from national, regional, and international agreements to reduce greenhouse gases

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.PE29.3>

COMMENTS

The City has had ongoing discussions with an energy company called Noventa Energy Partners, Inc. to facilitate the first sewer heat recovery project in Toronto. Noventa Energy Partner Inc.'s project would generate significant renewable heating and cooling energy for the Toronto Western Hospital near Bathurst and Dundas streets displacing fossil fuel use and resulting in significant GHG reductions.

By providing Noventa Toronto Western L.P., a limited partnership involving Noventa Energy Partners, Inc. as the general partner, with access to the City's sewer and right-of-way -- together with a possible lease of City lands and possible City green financing - the City may yield significant greenhouse gas emission reductions, together with possible revenue opportunities and the foundation for similar projects in the future.

Although City Council already approved this project in October 2019 with direction for a short-term pilot followed by a longer term access agreement at the discretion of City staff, the City soon realized in its term sheet negotiations with Noventa that delivering certain greenhouse gas reductions and financial returns on the project would be more challenging if the City could not offer access to City assets for a 30-year term in the first instance. Consequently, the City is now asking Council to reopen the October 2019

decision to modify it in accordance with a detailed term sheet that is attached to this report.

Sewer wastewater contains recoverable heat with the ability to displace natural gas use in buildings and therefore significantly reduce GHG emissions, consistent with TransformTO goals. Buildings represent over 50% of annual GHG emissions in Toronto. In Canada, Whistler, Vancouver, and Halifax have successfully provided access to wastewater infrastructure for energy transfer projects to reduce carbon emission by displacing fossil fuel use.

The City's understanding is that the Toronto Western Hospital plans to purchase clean energy from Noventa for 30 years, which could result in a deep reduction of emissions (up to 90% reduction in current natural gas use, resulting in annual reductions of 15,000 tCO₂e), by using low-carbon energy recovered from the sewer running along Dundas Street.

Using sewer energy further demonstrates Toronto as a leader in the renewable energy field and a hub of technological innovation; and lay the foundation for a standard offer program resulting in additional projects for wastewater energy transfer, advancing TransformTO low-carbon/renewable thermal energy implementation.

City staff have been working on the following items towards advancing the project:

- Negotiated a Term Sheet (see the Attachment), for a Wastewater Sewer Energy Transfer Agreement and other necessary agreements. The City's main role is to provide access to sewer infrastructure. The role of Noventa Toronto Western L.P. is to, design, finance, construct, own, and operate the energy system, largely at its own risk subject to a staged project review process, indemnification provisions, insurance requirements, and the provision of a financial guarantee of limited duration from Noventa Energy Partners, Inc.
- Identified the necessary right-of-way encroachments, for Noventa Toronto Western L.P. to connect to the sewer infrastructure running along Dundas Street, and locate associated piping. A diagram is included in the Attachment.
- Commenced process of identifying City lands required to facilitate the project on Scadding Court Community Centre property. Consultation is required with all impacted Divisions and occupants of the Community Centre. Any resulting real estate transactions will be negotiated in accordance with the City's delegated authority set out in Municipal Code Chapter 213, at market value. A diagram of proposed project locations is included in the Attachment.
- Initiated efforts, conditional on securing grants and low-interest debt financing, to have the energy centre also serve as an Urban Innovation Centre with participation from the Centre for Social Innovation and Ryerson University, and other partners, as well as, community stakeholders.

In reviewing the Attachment, Council should note the following:

- Although the major risks arising from Noventa Toronto Western L.P.'s connection to the sewer and operation of the Noventa System rest with Noventa Toronto Western L.P., with a financial guarantee of limited duration from Noventa Energy Partners, Inc., the City has agreed to undertake certain risks -- such as a cross-indemnity dependent on the City's intentional acts or negligence -- to help facilitate the Wastewater Energy Transfer Agreement.
- Where disposal of City lands designated Parks and Open Space in excess of 21 years is necessary for the project, an Official Plan Amendment is required for an exception to Official Plan Policy 4.3.8.
- The terms of Noventa's access to City-owned property have not yet been negotiated.
- As indicated in the term sheet, the City may discuss with Noventa Toronto Western L.P. and/or Noventa Energy Partners, Inc. certain financing or revenue opportunities to include in the Wastewater Energy Transfer Agreement should Noventa ever need additional City approvals or acceptances.
- Construction of the Noventa System likely can commence as early as 2021 resulting in immediate local economic stimulus.
- During the operation phase, green jobs likely will be created.
- The City will receive an annual energy transfer fee from Noventa Toronto Western LP.

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SIGNATURE

Josie Scioli
Deputy City Manager, Corporate Services

ATTACHMENTS

Attachment 1 - Negotiated Term Sheet for Wastewater Energy Transfer Agreement
Attachment 2 - Confidential Attachment