

## Attachment A: Deep Lake Water Cooling Expansion

### DEEP LAKE WATER COOLING EXPANSION

#### TERM SHEET

##### 1. Introduction

Currently, the City of Toronto ("**Toronto**" or the "**City**", such terms used interchangeably) and Enwave Energy Corporation ("**Enwave**") are Parties to the ETA which governs their relationship with respect to the DLWC Project.

In 2013, Toronto's City Council authorized the General Manager, Toronto Water ("**General Manager**"), to enter into without prejudice negotiations with Enwave regarding Enwave's then proposed expansion of the DLWC Project based on a raw water diversion system originating at the Island Filtration Plant ("**IFP**") and terminating at the John Street Pumping Station ("**JSPS**").

Since 2013, in accordance with the above-noted City Council authority, Toronto Water has negotiated with Enwave on various technical solutions and business terms regarding an expansion of the DLWC Project culminating in this term sheet ("**Term Sheet**") which reflects the commercial principles intended to serve as a framework for the final negotiations between the Parties and an amendment to the ETA to give effect to the DLWC Expansion, subject to the following:

- (a) the approval of Toronto City Council;
- (b) the approval of the Enwave Board of Directors; and
- (c) completion of due diligence by both Toronto and Enwave and the results thereof being acceptable to them, each in their sole discretion.

This Term Sheet is not intended to and does not create any binding obligations between the Parties. For greater clarity, this Term Sheet does not constitute a legally binding or enforceable agreement.

##### 2. Definitions

In addition to the terms defined above and elsewhere herein, the following capitalized terms will have the meanings stated below when used in this Term Sheet:

"**Additional Heat Exchangers**" means the three heat exchangers (as approved by Toronto's City Council on October 29, 2019) to be added to the Energy Transfer Loop until such time as the ETA may be further amended to reflect the DLWC Expansion.

**“Average System C-Factor”** means in respect of an Annual Flow Test conducted by Toronto, the average of the C-Factor calculated using the existing individual flow meters for each of the three water intake pipes that comprise the Existing NIL.

**“C-Factor”** means, in respect of a water intake pipe, a factor or value used to indicate the smoothness of the interior of such pipe and calculated by inputting the applicable results of an Annual Flow Test into a formula to be agreed upon by the Parties.

**“Design Report”** means the report prepared by R.V. Anderson Associates Limited and titled “Deep Lake Water Cooling Expansion Project – Conceptual Design Report – Second Submission” dated October 4, 2019, including the associated “TW Comments and Response Log” and related supporting documents and any further amendments arising therefrom, and the project performance specifications to be developed by Enwave hereafter, all as may be acceptable to the General Manager and Enwave, each acting reasonably.

**“DLWC”** means Deep Lake Water Cooling.

**“DLWC Expansion”** means Enwave’s proposal, based on the Design Report, to expand the capacity of the DLWC Project as described in this Term Sheet, and includes the design, construction, commissioning, operation, maintenance and repair of the New Project Works.

**“DLWC Project”** means the original project prescribed by the ETA for the purposes of DLWC and, without limiting the generality of the foregoing, the existing system whereby Toronto's drinking water treatment and supply infrastructure is utilized to facilitate energy transfer with Enwave's district cooling system.

**“Enwave’s SSCP”** means Enwave’s Simcoe Street Cooling Plant, located in the Metro Toronto Convention Centre.

**“ETA”** means the Energy Transfer Agreement dated January 18, 2002 between Toronto and Enwave, as amended by the Amending Agreement dated August 20, 2007 and the Second Amending Agreement dated September 1, 2010.

**“Existing Heat Exchangers”** means the 36 Heat Exchangers (as defined in the ETA) that are in operation as of the date of this Term Sheet and are part of the DLWC Project.

**“Existing NIL”** means the three water intake pipes that are in operation as of the date of this Term Sheet and are part of the DLWC Project.

**“New Raw Water ETL”** means the supply and return pipes, pumps, and related equipment and appurtenances for the supply of raw water to the Raw Water Heat Exchangers.

**“Parties”** means Toronto and Enwave, and **“Party”** means either of them.

Capitalized terms used but not otherwise defined herein have the meaning ascribed to them in the ETA.

### **3. Background**

- (1) In 2002, Toronto and Enwave entered into the ETA to facilitate Enwave’s construction, commissioning and operation of the DLWC Project. The DLWC Project was commissioned

in 2004. The DLWC Project has a flow capacity of 69,700 gpm. Enwave has proposed an expansion of the DLWC Project to increase the capacity of the DLWC Project to meet the growing demand for cooling in the downtown core of the City of Toronto. The expansion will add 46,000 gpm to the flow capacity of the DLWC Project. Toronto and Enwave have agreed in principle, subject to this Term Sheet, to finalize negotiations between the Parties and amend the ETA to facilitate the expansion of the DLWC Project by, among other things, the construction by Enwave of certain new facilities for itself and Toronto, and the provision by Toronto of raw water to Enwave for thermal cooling, based on increasing the flow of cool water from the IFP to a new raw water diversion system terminating at the JSPS, to supplement the thermal cooling capacity that Enwave currently obtains from Toronto's potable water pursuant to the ETA.

- (2) Toronto operates its potable water supply system under high standards using best practices to ensure the preservation at all times of the security, quality and purity of the Toronto water supply. The Parties acknowledge that the preservation at all times of the security, quality and purity of the Toronto drinking water is of paramount importance in undertaking the DLWC Expansion. For this reason, prior to the entering into of any amendment to the ETA, the General Manager must have determined, in his sole discretion, that the DLWC Expansion meets Toronto's technical and operational requirements. At all material times, the DLWC Expansion must comply with Toronto's Permit to Take Water ("**PTTW**"), Drinking Water Works Permit ("**DWWP**") and Municipal Drinking Water License ("**MDWL**"), as may be amended, to the extent applicable.
- (3) Any amendment to the ETA to give effect to the DLWC Expansion must otherwise be on terms and conditions satisfactory to the General Manager and in a form satisfactory to the City Solicitor. Any disposal of Toronto's lands required for the DLWC Expansion will be on terms and conditions satisfactory to the Executive Director, Corporate Real Estate Management, in consultation with the General Manager, Parks Forestry and Recreation, and, as noted in Section 9, any resulting real estate transaction will be authorized by Toronto's delegated approving authority for real estate transactions (EX27.12, 2017)

#### **4. DLWC Expansion**

- (1) The expansion to the DLWC system will comprise the following key elements:
  - (a) a fourth water intake pipe at the IFP (being installed through the existing easternmost intake pipe, which is currently not used by Toronto) (the "**Fourth Intake**");
  - (b) modifications to the existing intakes valve chamber to interconnect between the Fourth Intake and the Existing NIL at the IFP creating a new pigging launch chamber (the "Valve Chamber Modifications") and a new adjacent valve chamber/wet well, all complete with valves, flow meters, air extractor system, screen, chlorination injector, and appurtenances (the "**Shaft #3**");
  - (c) a new shallow tunnel that runs from the Valve Chamber Modifications to a deep rock tunnel shaft at the IFP (the "**Shallow Tunnel**");
  - (d) a new deep rock tunnel connecting the Shallow Tunnel from the IFP to the JSPS, including related tunnelling, piping, shafts and tunnels (the Shallow Tunnel and such deep rock tunnel being collectively referred to as the "**Raw Water Main**");

- (e) modifications to the JSPS Extension, including the installation of new heat exchangers (the "**Raw Water Heat Exchangers**"), pumps, flow meter, surge control riser, and upgraded chilled water piping (the "**JSPS Extension Raw Water Modifications**"), and the transfer of the Additional Heat Exchangers to the New Raw Water ETL;
- (f) a new raw water discharge pipe from the JSPS Extension to Enwave's SSCP (the "**Raw Water Discharge System**"); and
- (g) improvements to the Simcoe Street discharge sewer and connection point at Toronto's chamber and sewer (the "**Simcoe Street Discharge & Connection Chamber Improvements**") including, but not limited to, sewer level sensors, operational procedures for Enwave's discharge and modifications to Enwave's SSCP existing discharge sewer connection and chamber.

all as more particularly detailed in the Design Report (collectively, the "**New Project Works**").

- (2) Enwave will design, construct, install, test and commission the New Project Works, at its expense, in accordance with the Design Report and the final plans and specifications therefor.
- (3) Once the Design Report is finalized, and before it commences construction of the New Project Works, Enwave will provide Toronto with copies of the final plans and specifications for the New Project Works. The final plans and specifications for the Fourth Intake, the Valve Chamber Modifications, Shaft #3, and the Simcoe Street Discharge & Connection Chamber Improvements will be subject to Toronto approval, such approval not to be unreasonably withheld.
- (4) Toronto will designate a full time site inspector who will be present during the construction, installation, testing and commissioning of the Fourth Intake, the Valve Chamber Modifications, Shaft #3, and the Simcoe Street Discharge & Connection Chamber Improvements. Enwave will reimburse Toronto for all costs incurred by Toronto relating to the site inspector up to a maximum of \$120 per hour. Toronto will submit an invoice or invoices, as the case may be, for such reimbursement costs together with supporting documentation to Enwave for payment. Enwave will pay to Toronto the invoiced amount(s) within 30 days of Enwave's receipt of the invoice(s).

## **5. Ownership of New Project Works**

- (a) Upon the date of completion of the final commissioning of the New Project Works, Toronto will own the Fourth Intake, the Valve Chamber Modifications, Shaft #3, and the Simcoe Street Discharge & Connection Chamber Improvements free and clear of all claims, liens and encumbrances, will bear the risk of loss of or damage to same and will, subject to Section 12, maintain such works and bear the cost of maintaining those works. Notwithstanding the foregoing, any risk of loss of or damage attributable to construction or design will remain with Enwave.
- (b) Enwave will own the New Project Works, other than the Fourth Intake, the Valve Chamber Modifications, Shaft #3, and the Simcoe Street Discharge & Connection Chamber Improvements. Except as set out in Sections 5(a) and 12, Enwave will maintain and operate, at its sole expense, the New Project Works. Enwave will

bear the risk of loss or damage to the New Project Works, other than the Fourth Intake, the Valve Chamber Modifications, Shaft #3, and the Simcoe Street Discharge & Connection Chamber Improvements.

**6. Bonding and Insurance**

Enwave will obtain and maintain, at its own expense, bonds and insurance in respect of the New Project Works acceptable to Toronto.

**7. Warranties and Professional Liability**

Enwave will secure appropriate professional liability insurance in the circumstances for the design of the New Project Works acceptable to Toronto. Enwave will obtain manufacturers' and contractors' warranties, for a minimum of 24 months from the date of completion of the final commissioning, for the New Project Works and will assign and/or transfer those warranties to Toronto to the extent that they relate to the Fourth Intake, the Valve Chamber Modifications, Shaft #3 or the Simcoe Street Discharge & Connection Chamber Improvements contemporaneous with the final commissioning of such works in accordance with the provisions of Section 5(a).

**8. Term of the ETA**

- (1) The Term of the ETA will be extended by an additional 10 years.
- (2) The Term of the ETA, after giving effect to Section 8(1), may only be further extended on such amended terms and conditions mutually agreed to by the Parties, and, in the case of Toronto, approved by Toronto's City Council. To initiate extension negotiations, Enwave will deliver to Toronto written notice, no later than five (5) years prior to the expiry of the Term, or any Extended Term, advising that it wants to extend the term of the ETA for an additional 25 year period (each such additional 25 year period, an "**Extended Term**"). If Enwave so advises Toronto, then the Parties will negotiate, both acting reasonably, the Incremental Operating Costs and the Energy Transfer Fee that will apply to such an Extended Term (collectively, the "Extended Term Payments"). The Parties will also negotiate, both acting reasonably, any other amendments to the terms and conditions in the ETA as may be desired for the Extended Term. If the Parties are able to reach agreement on the Extended Term Payments and any other amendments to the terms and conditions in the ETA, the Parties will amend the ETA to provide for the Extended Term. If, however, the Parties are unable to agree, then the Term of the ETA will not be so extended.

**9. Easements and Licences**

- (1) Enwave will require real property rights through lands owned by Toronto. The acquisition of those property interests will be negotiated between the Parties, acting reasonably, in accordance with Toronto's delegated approving authority for real estate transactions (EX27.12, 2017) at fair market value.
- (2) Enwave will pay all application fees and costs in connection with any official plan amendments required for the DLWC Expansion.

- (3) Enwave and Toronto will jointly obtain, at Enwave's sole expense, the required real property rights for the Fourth Intake from Her Majesty the Queen in the Right of Ontario, as represented by the Minister of Natural Resources, including a permanent easement for Toronto and construction permission for Enwave. Without in any way limiting the generality of the foregoing, Enwave will pay all costs associated with the easement acquisition, including any annual easement fees imposed by the Province, as well as the cost of any necessary temporary construction permission.
- (4) Enwave will obtain, at its sole expense, all other real property rights required for the DLWC Expansion.

#### **10. Environmental Assessment and other Approvals**

The Parties, as co-proponents, will undertake a Class Environmental Assessment, Schedule B, as required under the *Environmental Assessment Act*, R.S.O. 1990, as amended, at Enwave's sole expense, or such other Environmental Assessment as may be required.

Toronto will, at Enwave's sole expense, enter into discussions with the Ministry of the Environment, Conservations and Parks ("**MECP**") to negotiate and obtain, if possible, an amendment to its PTTW, DWWP and MDWL, and any other necessary approval(s) to permit the use and operation of the DLWC Expansion.

Enwave will, at its sole expense, obtain and maintain all other approvals as may be necessary for the DLWC Expansion.

Any invoices issued by Toronto to Enwave for reimbursement by Enwave under this Section 10 will reflect the actual out of pocket third party costs and expenses incurred by Toronto, without any mark-up. Toronto will provide reasonable documentation to Enwave to substantiate its claim for reimbursement.

#### **11. Annual Flow Test**

Annually, Toronto will conduct a water flow test of the Existing NIL (an "**Annual Flow Test**") in accordance with Toronto's standard operating procedure with such modifications thereto as the Parties may from time to time agree. Toronto will provide Enwave with reasonable notice as to when the Annual Flow Test will be conducted, and Enwave may send a representative to monitor such Annual Flow Test. Within 15 days of completing an Annual Flow Test, Toronto will provide Enwave with the results of such Annual Flow Test and Toronto's calculation of the Average System C-Factor for the Existing NIL. Enwave's permitted use of these results is restricted solely to establishing the C-Factor.

#### **12. Maintenance Obligations**

Separate and apart from the Incremental Operating Costs under the ETA, which will remain unchanged:

- (1) Following commissioning of the DLWC Expansion:

- (a) Toronto will periodically clean the Existing NIL and the Fourth Intake (collectively, the “**Intakes**”) in accordance with this Section 12.
- (b) If the Average System C-Factor calculated in connection with an Annual Flow Test is equal to or less than 120, Toronto will, as soon as practicable after such determination, undertake a cleaning of all of the Intakes (each cleaning being an “**Intake Cleaning**”) with the objective to achieve a C-Factor for each Intake of 140, using up to three swabs or pigs per Intake, including a standard deviation of up to 25 on the average flow results.
- (c) Enwave may, at any time and from time to time, direct that Toronto undertake a cleaning of the Intakes. If Enwave so directs, Toronto will, as soon as practicable, undertake an Intake Cleaning with the objective to achieve a C-Factor for each Intake of 140, using up to three swabs or pigs per Intake, including a standard deviation of up to 25 on the average flow results.
- (d) Following an Intake Cleaning, Toronto will conduct a water flow test following the methodology for the Annual Flow Test and report thereon to Enwave. If the results of such testing indicate that the C-Factor is less than 140 for any particular Intake, then the Parties will jointly determine, both acting reasonably, if additional swabs or pigs are required to attain the desired C-Factor for such Intake.
- (e) In connection with each Intake Cleaning, Enwave will, within 30 days of receipt of an invoice from Toronto, reimburse Toronto for: (A) all costs and expenses reasonably incurred by Toronto in connection with the cleaning of the Fourth Intake; and (B) if applicable and if such Intake Cleaning is done at the request of Enwave, a percentage of all costs and expenses reasonably incurred by Toronto in connection with the cleaning of the Existing NIL. Such percentage will be determined in accordance with the following formula:

$$1 - ((140 - \text{Actual C-Factor})/20),$$

where the “**Actual C-Factor**” means the most recently calculated Average System C-Factor at the time of the applicable Intake Cleaning;

- (2) Toronto will perform maintenance activities relating to the Valve Chamber Modifications and Shaft #3 at the IFP. The appropriate frequency, scope and budget of such activities will be determined by Toronto, in consultation with Enwave, each acting reasonably and with regard to both Parties' interests in the infrastructure and its performance. Enwave will, within 30 days of receipt of an invoice from Toronto, reimburse Toronto for all costs and expenses reasonably incurred by Toronto in connection with screen cleaning, air extraction, chlorination, and flow meter maintenance activities, but only to the extent that such maintenance activities relate solely to the New Project Works;
- (3) Enwave will periodically clean, at Enwave's sole expense, the Existing Heat Exchangers, the Raw Water Heat Exchangers, and the Additional Heat Exchangers. Enwave will, in its sole discretion, determine the appropriate frequency, scope and budget of such cleaning activities. Toronto and Enwave will jointly coordinate to schedule such cleaning activities, each acting reasonably.

- (4) Enwave will refurbish or replace all gaskets in the Existing Heat Exchangers. The appropriate frequency, scope and budget of such activities will be jointly determined by the Parties, each acting reasonably. Toronto will, within 30 days of receipt of an invoice from Enwave, reimburse Enwave for 50% of all costs and expenses reasonably incurred by Enwave in connection with the refurbishment or replacement of such gaskets;
- (5) Full replacement of the Existing Heat Exchangers, the Raw Water Heat Exchangers, the Additional Heat Exchangers, and City Water Pumps, as contrasted with maintenance and repair, will be at Enwave's sole expense.
- (6) Toronto will maintain the City Water Pumps in good working order. Enwave will pay for the cost of any replacement parts that are reasonably required, from time to time, for the refurbishment by Toronto of the City Water Pumps in order for such City Water Pumps to continue to operate efficiently and reliably. Other than the cost of the replacement parts and subject to the terms of a letter agreement dated January 3, 2017 between Enwave and Toronto in respect of the installation of variable frequency drives on the City Water Pumps, Toronto will bear the cost of all maintenance to the City Water Pumps, including the cost of installing such parts.
- (7) Toronto will use reasonable efforts to accommodate Enwave's requests to schedule and coordinate the activities described in this Section 12 in order to minimize interruption to the Project Works and New Project Works.
- (8) The controls of the Simcoe Street Discharge & Connection Chamber Improvements will be operated and maintained by Enwave. At Toronto's option, and at Enwave's expense, the control panel will be made accessible to Toronto's staff via integration to remote SCADA monitoring. Enwave will maintain the level sensing data logs. At Toronto's request, Enwave will share this data with Toronto.
- (9) All invoices issued by a Party for reimbursement by the other Party as contemplated under this Section 12 will reflect the costs and expenses incurred by such Party, without any mark-up. Each Party will provide reasonable documentation to the other Party to substantiate its claim for reimbursement.

**13. Energy Transfer Fee**

- (a) Enwave shall pay to Toronto the Energy Transfer Fee, on the same basis as the ETA, for the cooling energy transferred through the New Raw Water ETL.
- (b) The Energy Transfer Fee payable to Toronto will be calculated based on ton-hours of cooling energy; and the Parties will convert the applicable Energy Transfer Fee from an amount expressed in dollars per tonne-hour of cooling energy into an amount expressed in dollars per ton-hour of cooling energy.
- (c) The temperature and flow of the water delivered to and returned from the Raw Water Heat Exchangers and Additional Heat Exchangers will be measured and recorded by Enwave for the purpose of determining the cooling energy transferred through the New Raw Water ETL.

**14. Operational Protocol**



The Parties will jointly develop an operational protocol for the DLWC Expansion acceptable to both Parties, each acting reasonably.

**15. Confidentiality**

Subject to MFIPPA, and the *City of Toronto Act, 2006*, the Parties will negotiate, both acting reasonably, an amendment to the confidentiality provisions set out in section 7.23 of the ETA to provide, among other things, that with the exception of any confidential financial information contained therein, the ETA, as amended, will not be confidential.

**16. City as Municipal Corporation**

The following provision, or such other similar provision acceptable to Toronto's City Solicitor and Enwave, will be included in any amendment to the ETA to give effect to the DLWC Expansion:

- (1) Nothing in this Agreement derogates from, interferes with, or fetters the exercise by the City or any of its representatives or appointed officials of their respective statutory rights and regulatory responsibilities as a municipality, an owner of a municipal drinking water system or appointed official (whether discretionary or mandatory), and neither the City nor its representatives or appointed officials shall be prevented from or prejudiced in carrying out their respective statutory rights and regulatory responsibilities including, without limitation, its planning rights and responsibilities. For further clarity, the City agrees that this provision shall not affect the ability of either Party to rely upon and enforce the provisions of this Agreement.
- (2) No communication or dealing between Enwave and any department, committee, body, officer, employee, agent, representative, or elected or appointed official of the City that is not clearly in respect of and in accordance with this Agreement will be deemed to be a communication or dealing under this Agreement between Enwave and the City as parties to this Agreement, or affect the City with notice of any such communication or dealing. It is intended and agreed that any communication or dealing between Enwave and the City as parties to this Agreement will only be effective if delivered in accordance with the notice provisions in this Agreement. No communication or dealing between the City as a party to this Agreement and Enwave as a party to this Agreement will relieve Enwave from the responsibility of discharging its lawful obligations to the City imposed by statute, regulation, by-law, or by any other lawful manner separate and apart from the obligations imposed under this Agreement.

**17. Emission Credits**

As part of the final negotiations between the Parties for the amendment to the ETA to give effect to the DLWC Expansion, the Parties will discuss ownership of any emission reduction credits that may be attributable to the DLWC Expansion.