

The Regional Municipality of York

Committee of the Whole
Environmental Services
January 12, 2023

Report of the Commissioner of Public Works

Award of Contract for Long-term Organic Waste Transportation and Processing Services

1. Recommendations

1. Council approve the contract award for organic waste transportation and processing services to The Convertus Group, pursuant to Request for Proposal P-20-276, for the total estimated contract value of \$490 million excluding HST, for the term of the contract.
2. The Region enter into an agreement with The Convertus Group to deliver services described in Request for Proposal P-20-276, including:
 - a) Construction and commissioning of a privately-owned source separated organic waste processing facility prior to March 1, 2027
 - b) Transportation and processing up to 140,000 tonnes per year of York Region's source separated organic waste for a 20-year period commencing on March 1, 2027, with a total contract price not to exceed \$490 million excluding HST
3. The Commissioner of Public Works be authorized to execute the agreement on behalf of the Region.

2. Summary

This report seeks Council approval to award Request for Proposal (RFP) P-20-276 to The Convertus Group (Convertus) and for the Commissioner of Public Works to execute the agreement. Executing this 20-year agreement with Convertus will secure transportation services and anaerobic digestion processing to sustainably manage the Region's source separated organic (SSO) waste locally from March 1, 2027, through February 28, 2047, at a total contract price not to exceed \$490 million excluding HST.

Attachment 1 and Attachment 3 to this report are private pursuant to subsections 239(2)(i) and (k) of the *Municipal Act, 2001* because they contain confidential commercial and financial information of other organizations which, if disclosed, could reasonably be expected to prejudice significantly the competitive positions of those organizations and they relate to a position or instruction to be applied to negotiations carried on by the Region.

Attachment 2 to this report is private pursuant to subsections 239(2)(e) and (k) of the *Municipal Act, 2001* because it involves a position or instruction to be applied to negotiations to be carried on by the Region and could result in potential litigation if prematurely disclosed.

Key Points:

- In April 2020, Council authorized staff to issue a request for proposals to provide anaerobic digestion capacity for processing the Region's SSO at privately-owned facilities for a period of 20 years
- Convertus was the successful proponent for RFP P-20-276, as they achieved the highest score for technical proposal and lowest cost per technical point, based on evaluation criteria including experience, technical merit, proposed methods to reduce greenhouse gas emissions, cost effectiveness, odour control measures and energy recovery
- Contract execution with Convertus would provide long-term local SSO processing capacity through February 2047, with estimated lower costs of \$85 million over the 20-year contract term compared to continuing with current contracts
- Facility location within York Region realizes over \$600,000 in savings per year by reducing waste transfer costs
- Modelled after an award-winning facility in British Columbia, the facility design will protect public health and minimize environmental impacts through processing in an enclosed environment with state-of-the-art biogas capture, leachate management and odour abatement systems

3. Background

In April 2020, Council authorized staff to issue a request for proposals to provide privately-owned anaerobic digestion processing capacity for a period of 20 years

The process of securing long-term SSO processing capacity has been guided by the Region's Waste management plan – referred to as the [SM4RT Living Plan](#), with approval from Council at key milestones. In [September 2013](#), Council endorsed the SM4RT Living Plan, which included a strategy identifying long-term needs for SSO processing and timing for seeking additional capacity. As reported in [June 2018](#), a feasibility study was conducted in 2017 identifying anaerobic digestion as the preferred processing technology suitable for handling York Region's green bin waste in the long-term. As part of the update to the SM4RT Living Plan in [April 2020](#), Council authorized staff to issue a request for proposals for processing the Region's SSO at privately-owned facilities for a period of 20 years. This report provides details on the outcome and recommendations from that procurement process.

Transition to anaerobic digestion will maintain York Region's diversion target and reduce greenhouse gas emissions

Aerobic SSO processing, the primary processing method used by the Region's current contractors, produces carbon dioxide and results in positive greenhouse gas (GHG) emissions.

Securing long-term anaerobic digestion capacity will lower GHG emissions and deliver environmentally sustainable services. Anaerobic digestion produces biogas that Convertus will upgrade to renewable natural gas (biofuel) and inject into the local utility grid. This approach will displace fossil fuel energy and its associated GHG emissions and result in overall net-negative GHG emissions for the facility.

If the contract is awarded to Convertus', GHG emissions will be further reduced by benefiting from a local solution; transportation and transfer of SSO will be conducted within York Region. The Region's SM4RT Living Plan estimated switching from aerobic to local anaerobic digestion would reduce GHG emissions by roughly 15,000 tonnes of carbon dioxide equivalent per year. The Convertus proposal is consistent with the SM4RT Living Plan and its long-term objectives for anaerobic digestion processing.

In anticipation of the proposed provincial government ban on landfill disposal of organics, demand for SSO processing capacity is expected to increase in an already limited marketplace. By procuring long-term processing capacity prior to a ban and using a performance-based proposal, the Region was able to obtain multiple competitive bids. Securing long-term capacity allows York Region to continue to meet its waste diversion target, outlined in the SM4RT Living Waste Management Master Plan, in a cost-effective manner.

Existing source separated organic processing contracts expire in June 2027

York Region currently processes SSO at Convertus Canada's composting facility in London, GFL Environmental's composting facility in Moose Creek, and Cornerstone Renewables' anaerobic digestion facilities in Elmira and Leamington. These three contracts provide SSO processing capacity for the Region through to June 2027, which is after the expected full-service start date of the new facility in March 2027.

4. Analysis

Request for Proposal P-20-276 considered key elements based on Council-approved long-term source separated organic waste processing plan

Terms and conditions of RFP P-20-276 include:

- 20-year contract term from March 1, 2027, through February 28, 2047, to provide proponents with sufficient time to recover their investments in facility capital
- Options include awarding contract to two proponents with the annual tonnage in blocks of 70,000 tonnes each or 140,000 tonnes to one proponent
- Demonstrated ability to design, build, own, and operate anaerobic digestion processing facilities like the scale and specifications outlined in the request for proposal
- Use of anaerobic digestion technology to produce energy product and soil amendment product in compliance with annual performance guarantees

- Rigorous performance-based requirements, including construction, transportation to the facility, processing, biofuel and digestate use, and residue management to achieve lowest net carbon possible
- Control measures for odours and other nuisances to maintain compliance with applicable Ontario Ministry of Environment, Conservation and Parks odour criteria and minimize impact to the local community
- Primary Processing Facility located in the Province of Ontario and within 200 kilometres of the Region's geographical boundaries, reducing the haulage distance between the Region's transfer stations and the Facility; this results in lower transportation costs and reduced GHG emissions
- Revenue from sale of energy product, soil amendment product, and any environmental attributes or tradable emissions credits associated with performance of the work used by proponent to recover operation and maintenance costs over the life-cycle period, which translates to cost savings to the Region on processing fees
- Environmental management system consistent with the ISO 14001:2015 standard or equivalent to demonstrate ability to continuously improve environmental performance in operating the processing facilities

Procurement approach used best practices, including an independent fairness monitor to assure transparent and balanced approach in evaluating proposals

The procurement process was subjected to rigorous due diligence rules and procedures consistent with best practices applied by provincial and federal infrastructure procurement agencies across Canada.

A fairness monitor was acquired to provide oversight throughout the process, including proposal evaluation, to ensure that assessment adhered to the pre-determined evaluation criteria. The fairness monitor concluded that York Region had conducted an open, fair, consistent and accountable process.

York Region secured technical and legal support from internal and external partners throughout the process

The Region retained a technical consultant to assist with reviewing procurement documents and providing technical expertise related to procurement of complex organic waste processing contracts in Ontario. The consultant is an organic waste management expert, with over 29 years of national and international professional experience, including facility management, operator training, and public and private sector consulting assignments from the federal government to facility operators.

The technical consultant was part of the evaluation committee, comprising representatives from the Region's Public Works Department, to evaluate proposals. York Region Procurement Office and Legal provided guidance to assist the evaluation team. Following the evaluation, external legal counsel assisted with drafting the agreement and contract negotiation. To ensure

confidentiality and to maintain the integrity of the process, the technical consultant signed confidentiality agreements and agreed to not provide any RFP-related services or advice to third parties until at least two months after a Contract is awarded by Council.

Competitive procurement process resulted in eleven bid submissions from six proponents

RFP P-20-276 was issued on June 7, 2021, and the bid notice was posted on the Region's Bids and Tenders website. Eleven bid submissions from six proponents were received by the November 5, 2021, closing date. Each proponent had the option of submitting a bid for a processing facility with a capacity of 70,000 tonnes per year or 140,000 tonnes per year. Five of the six proponents submitted proposals for both options and one proponent submitted one 70,000 tonnes per year proposal. The bid validity period was extended to allow for due diligence with the preferred vendor prior to award.

Scoring of the proposals was based on a maximum of 100 points, with 50 points allocated to the Technical Proposal, 25 points allocated to the Baseline GHG Emissions Guarantee and the Financial Proposal at 25 points. York Region staff, including Legal and Procurement, the technical consultant and fairness monitor reviewed and finalized detailed scoring during the evaluation.

Proposals were evaluated in accordance with Regional policy, bylaws and practices. The proponents' technical and financial scores are shown in Private Attachment 1. This attachment is considered in private as it contains commercially confidential information that could negatively impact proponents as there are other municipal procurements for similar facilities currently on the market.

The Region's Purchasing Bylaw states where two or more bidders are within five points of the highest overall score, a dollar cost per technical point methodology shall be applied to determine the bidder to whom the contract shall be awarded. Because all six submissions were within five points of each other a cost per technical point was calculated to determine the preferred proponent. Convertus was determined to have the lowest dollar cost per technical point and is therefore the preferred proponent.

Convertus achieved the highest score for technical proposal and lowest cost per technical point in response to Request for Proposal P-20-276

Convertus achieved the lowest dollar cost per technical point in their 140,000 tonnes per year proposal. They had the highest technical and financial score, and they scored the lowest on the GHG score. Convertus' high technical score was largely attributed to the facility being located within York Region as well as an accumulation of high scores achieved in odour control measures, qualifications and experience. Convertus was the only proponent that achieved full points for direct delivery due to its location (see Private Attachment 2).

The evaluation process included a strong emphasis on scoring high on the technical aspect of the proposal and Convertus had the highest technical score based on their considerable knowledge and experience as well as presenting the most feasible option for direct delivery of green bin material from local municipalities within York Region. Ultimately, the goal was to

achieve the highest overall score (lowest cost per technical point) and Convertus' cost per technical point was about 7% lower than the second ranked proponent.

Convertus has significant experience operating advanced source separated organic treatment facilities

Convertus has significant experience operating advanced SSO treatment facilities using both aerobic and anaerobic digestion and supplied waste processing technologies to waste facilities over 26 years. Convertus owns and operates four waste treatment facilities in London and Ottawa in Ontario, and in Surrey and Nanaimo in British Columbia. These facilities service some of the largest municipalities in Canada, including York Region, City of Ottawa, City of Surrey, Regional District of Nanaimo, as well as smaller municipalities, including the Cities of Port Moody, Port Coquitlam and Pitt Meadows in British Columbia. Since 2008, Convertus has processed more than 2 million tonnes of organic waste. This includes processing 700,000 tonnes from York Region since 2013.

The Surrey Biofuel Facility has also won sustainability awards, including Gold Certification under Canada's Leadership in Energy and Environmental Design (LEED) rating system and was the first waste-sector infrastructure project in North America to be awarded the Institute for Sustainable Infrastructure's Envision Platinum Award for Sustainability.

Convertus proposal offers community benefits and advanced leading technology, while minimizing environmental impacts

Convertus proposes to build a modern wet anaerobic digestion facility (Biofuel Facility) in York Region, meeting and exceeding processing requirements and the most stringent environmental standards. Once completed, the Biofuel Facility will be capable of processing 140,000 tonnes per year of the Region's SSO to produce solid and liquid soil amendment product called digestate, that is rich in nutrients and has value as soil conditioner or fertilizer. Convertus intends to develop a York Region end market by contacting farmers within 50 kilometres of the facility to sell the organic digestate for local use. Biogas produced during the digestion process will be upgraded to biofuel and sold to energy markets via the local natural gas grid.

Since the proposed new facility is located in York Region, transportation costs and GHG emissions related to transporting SSO will be reduced significantly. When suitably designed and operated, anaerobic digestion technology reduces nuisance odour risks by confining the biodegradation process within enclosed vessels. In addition, Convertus proposes to incorporate similar and more advanced odour abatement technology than at their Surrey facility, which has had no substantial odour complaints in over four years of operation. The proposed system consists of acid scrubbers, ColdOx UV treatment technology and activated carbon filtration; the odorous components in the air will be effectively removed before exhausted. The entire building of the new facility will also operate under constant negative pressure in combination with enhanced odour control measures, including high speed rollup doors with air curtains to eliminate odour emissions.

The organics processing facility in London, Ontario, uses different technology than what is proposed in the new facility. This London facility currently receives and processes York Region SSO materials has previously experienced odour issues, particularly under previous ownership.

Since acquiring this facility, Convertus upgraded its odour abatement system to similar technology used in their Surrey facility, drastically reducing odour complaints, particularly in the warm summer months.

Pending Council approval, staff will work with successful proponent to begin pre-operating phase with full-service commencement planned for 2027

Council award of RFP P-20-276 to Convertus would result in York Region and Convertus entering the pre-operating phase of the project. In this phase, Convertus would procure all required permits, licences, approvals and agreements to complete facility construction and start the commissioning stage approximately six months prior to the full-service commencement date. Initial operation will use the Region's SSO tonnage currently under contract with the Convertus London facility. Full-service commencement is planned for March 1, 2027.

Staff will participate in the pre-operating phase, which will commence upon award, by validating that key objectives and goals can be met and ensuring SSO processing is seamlessly transitioned to anaerobic digestion. Convertus will provide monthly written progress report submissions and hold monthly meetings with the Region to review progress toward the service commencement date.

5. Financial

Estimated total contract value including annual adjustments over the 20-year term is \$490 million excluding HST

The estimated contract value over the 20-year contract term is \$490 million, including annual tonnage increases, allowances for annual inflation adjustments, fuel surcharges and estimated performance-based price adjustments. In addition to contract payments for processing up to 140,000 tonnes per year of the Region's source separated organics, Convertus will retain any revenue from the sale of soil amendment and energy produced.

New contract will result in estimated 15% lower costs compared to maintaining current contracts over same 20-year term

Cost recovery by Convertus through sale of soil amendment translates into cost savings for the Region on processing fees. The new contract will lower costs by 15% compared to processing through current contracts. Based on estimated tonnage projections over the 20-year term, this equates to approximately \$85 million in lower costs. Cost savings in 2027 between Convertus' SSO processing fees and the Region's currently contracted anaerobic digestion SSO processing facilities are shown in Private Attachment 3.

Direct delivery option and local facility reduces waste transfer cost and greenhouse gas emissions

The long-term SSO processing contract has provisions for municipal collection trucks to directly deliver curbside collected SSO to the processing facility. Curbside waste collection services are provided by local municipalities, and transfer and processing services are provided by the

Region. Approximately 25% of the Region's residential curbside SSO tonnage is received at the Waste Management Center in East Gwillimbury and the remaining 75% SSO tonnage goes to Earl Turcott Waste Management Facility in Markham. SSO is shipped in long-haul tractor trailers from transfer stations to third-party SSO processors, and there is a service fee attributed to operation of transfer station and handling of SSO in the transfer station.

Locating the SSO processing facility locally allows 25% of curbside trucks to deliver directly to the processing facility. The remaining 75% of curbside trucks will continue to drop off material at the transfer station in the south, however, rather than long hauling this material to various processors across the province, the material will be hauled to the new facility located within the Region. The new logistical arrangement will have minimal impact on pre-established collection routes or costs for some local municipalities. The Region will benefit from avoided waste transfer fees at the transfer stations and elimination of GHG emissions generated by long-haul transportation vehicles. Direct delivery of 25% of the Region's SSO to an in-Region facility reduces waste transfer costs by approximately \$600,000 in average annual savings and over \$12 million over the 20-year contract term.

6. Local Impact

York Region collaborates with local municipal partners to provide sustainable, long-term waste management programs and maximize diversion from landfill in a cost-effective manner. The Region will continue to partner with local municipalities to explore the capacity for direct delivery to reduce costs and GHG emissions throughout the integrated waste management system.

During the pre-operating phase, Convertus will work with the Region and local municipalities on facility appearance to ensure buildings at the facility are complimentary to the aesthetics of the surrounding industrial community. Convertus has proposed to encourage community engagement, working with local organizations and schools to promote closed-loop infrastructure and best waste disposal practices, including the 4Rs, which are reduce, reuse, recycle, recover, through facility tours and local networking. Convertus will explore options to implement an inclusion program that identifies and engages local Indigenous communities at the new facility.

7. Conclusion

This report seeks Council approval of award of contract to The Convertus Group for organic waste transportation and processing services. Convertus' proposal achieved the highest score for technical proposal and lowest cost per technical point pursuant to the requirements of Request for Proposal P-20-276 and the terms of the Region's Purchasing Bylaw. The total estimated cost of the contract over the 20-year term is \$490 million excluding HST.

If approved, this contract would enter the pre-operations period, with full-service commencement planned for March 1, 2027. Staff will update Council at key milestones.

It is recommended the Commissioner of Public Works be authorized to execute the agreement on behalf of the Region.

For more information on this report, please contact Laura McDowell, General Manager, Interim Transition - Environmental at 1-877-464-9675 ext.75077. Accessible formats or communication supports are available upon request.



Recommended by:

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Approved for Submission:

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Chief Administrative Officer

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Private Attachment 1 – Procurement Evaluation Summary
Private Attachment 2 – Proposed Facility Location
Private Attachment 3 – SSO Processing Fee Comparison