

Getting to Net Zero Energy Wastewater III – February 10, 2020

For the final session of the event, participants were asked to articulate specific recommendations, directed to a specific target audience. Below is the summary of recommendations.

OWC = Ontario Water Consortium

OCWA = Ontario Clean Water Agency

TAF = The Atmospheric Fund

MECP = [Ontario] Ministry of Environment, Conservation and Parks

OMAFRA = Ontario Ministry of Agriculture, Food & Rural Affairs

Recommendation	To whom
Feasibility assessments need to be conducted for WWTP (including optimization of digestion, utilization, and SSO)	Municipal proponent
Develop an assessment of processing and digestion capacity (current/potential) and ability to accept clean organic feedstock for co-digestion (beyond capacity required for sludge processing).	Municipalities; Province.
Focus on regional approaches rather than individual systems to gain economy of scale and also return on investment.	
OWC, OCWA, TAF collaboratively seek for financing of a provincial market organics scoping study. Inclusive of source locations/volume processing capacity and need, best digestion location.	OWC, OCWA, TAF
Municipalities ready to progress looking for financing options should speak to TAF for more details about opportunity.	Municipalities, TAF
Create template / documentation applicable for 'generic' project application	OCWA(?)
Build awareness of co-digestion opportunities among solid waste managers (get it in solid waste plan and wastewater master plans).	Municipal: General Managers (Environmental Services)
Impose requirements (by regulation) on ICI sector for beneficial use of organics (restrict ability to use the cheapest private landfill disposal option).	MECP, Province, Feds(?)
Establish a contract with Enbridge inc.	Municipality, Enbridge
Develop a provincial plan for digestate management. Need a full market evaluation of options, taking environmental risk and public acceptance in mind; with strict quality standards.	MECP/OMAFRA
Regional/centralized approach to feedstock processing/distribution is needed to reduce competition and overall project costs.	ALL
Implement landfill ban on organics.	MECP

Recommendation	To whom
Solution for innovation under municipal procurement	Municipal boards, consulting engineers
Do a complete and thorough evaluation / feasibility study of co-digestion at your facility/ municipality including all aspect of inputs, processing and outputs.	Municipalities and consultants
Seek stakeholders' input prior to starting to develop a project	Municipalities
Organics ban at landfill. As long as disposal is viable, easy, cheap, securing reliable feedstock (and therefore viable economics) for innovative projects is difficult.	MECP
More collaborative and innovative approaches to these projects both from delivering/implement perspectives (municipal) and approval (MECP).	MECP Municipalities Tech providers
Regulations need to align with and reinforce goals: need organics ban at landfills (residential and IC&I). Advanced land application regulations.	MECP
Comprehensive feasibility evaluation, including regional needs assessment, feedstock sources, technology options, end product market etc.; Integrated environmental approval; collaborative and innovative approaches to delivery/ implementation.	Municipality MECP Tech providers
Working collaboration across the industry/relevant sectors.	Municipalities, farms, industry organizations (public and private)
Creating communication materials to allow for public acceptance of projects	Industry Organizations
Regional approach to meet this challenge; synergies and collaboration between municipalities.	Municipalities
Establish guidance/ roadmap of the application process for municipalities invested in co-digestion.	MECP
Keep communications with public in mind, make it a priority in advance of projects!	Municipal proponents
Make the approval process faster.	MECP
Create standards for feedstock digestate quality (for approvals).	Province
Financing for ownership and operations	
Start early on "change management" on every aspect of the project	Municipal proponents
Increase incentives for organics diversion	Province
Integrated regional approach to planning and product use, including feedstock supply.	Utilities, Federal, Province Farmers, Municipalities

Recommendation	To whom
Share best and worst practices / lessons learned; document energy/solids/nutrient savings through life cycle analysis to have clear science/engineering/real life- informed policies (look outside local jurisdictions - many countries use AD much more)	Province, Municipalities
Build partnerships between municipalities and universities/ colleges/and regulators and vendors and farmers to better understand and train on use of AD and associated products creating a space where information goes into the public domain freely w/o patents.	Funders and financial incentives
Approvals should include consideration of comprehensive life cycle analysis not only GHG (life cycle analysis should be required with submission).	MECP
Ensure stability of quantity and quality of feedstock.	Municipality
Municipalities are ready to engage the net zero initiative. However financial/business model is challenging.	Provincial or federal government need to be involved.
ECA process was difficult when Stratford case was initiated. Now comprehensive ECA process has been clarified. MECP should share this experience with other municipalities and technology providers	MECP and Stratford should document and promote their success story to others!
Playbook for private sector funding and Municipal Services Corporation (financing innovation/options).	Government
Evaluate and share methods to communicate to public the benefits of Renewable Natural Gas (to mitigate concerns).	Municipalities
Streamline ECA process for RNG projects by creating a templates and language that allows for design and operational flexibility.	MECP
Development of regional facilities	Province/municipality/ OCWA
Provide clear policy re: organic/landfilling and financial support (funding programs)	Province (MECP)
Talk to Enbridge about solutions, they will help you!	Industry
We need to communicate, not only at a technical level, but also at a layperson's level. Public advocacy and education/awareness is important.	Municipal proponents
Clarify what the objective is.	Municipalities Province
Establish a framework / outline and identify critical aspects of co-digestion e.g. policy objectives, technologies, GHG impact, energy, financing/cost-benefit-ROI.	Consortium of the interested parties

Recommendation	To whom
Regional planning/rationalization	Multiparty engagement led by province/TAF/NGP
Municipalities find a way to work together to make the options feasible (consider regional approaches)	Municipalities
Clarity on regulation/streamlining of processes	MECP
Develop an environmentally protective quality standard for feedstock or digester to allow maximum flexibility for inputs and outputs.	MECP/OMAFRA
Long term certainty on project revenue streams for inputs and outputs	
Increase knowledge in project financing	
To speed up the approvals process submit a complete application and don't change the proposal; complete application needs to include public consultation component carried out in the early stages of the process.	Applicants
Bring in expertise on financing net zero projects/guidance on financing.	OWC
Case study on Stratford setting out what worked and what didn't.	Stratford, OCWA, OWC
Enbridge to provide biogas upgrading and injection, and be open minded to discussing additional capital contribution requirements that would assist in making a project go forward.	Municipalities
Think about moving organics feedstock for rural agri-business projects to a centralized AD rather than on-site at farms.	OMAFRA
Feedstock evaluation; end market evaluation	Municipalities