



BOARD REPORT

REPORT No.: 2022-35

MEETING DATE: MAY 19, 2022

SUBJECT: FIRST REPORT - NET ZERO STRATEGY

RECOMMENDATION

THAT With respect to Report No. 2022-35 (Corporate Services Division), we, The District of Thunder Bay Social Services Administration Board, approve the receipt of the First Report – Net Zero Strategy.

REPORT SUMMARY

To provide information on the research and options for the development of a Net Zero Strategy for The District of Thunder Bay Social Services Administration Board (TBDSSAB or the Board).

BACKGROUND

A report has been presented to the Board since 2015, outlining the green energy initiatives related to the housing portfolio, in keeping with the 2013 – 2016 Practical Vision objective of being an environmentally friendly organization.

In addition, and with a view to expanding the scope of environmental stewardship to all areas of the organization, TBDSSAB has continued to view various operational items through that environmental stewardship lens.

At its November 17, 2021 meeting, the Board requested a report relative to the development of a Net Zero Strategy for TBDSSAB.

COMMENTS

Research

Administration completed a scan of public sector organizations in the post-secondary education sector within the District of Thunder Bay, as well as across Canada given the similarity of infrastructure maintained by those public sector organizations. In all cases, a sustainability plan was identified, many included targets for green house gas (GHG)

emissions and included dedicated staff resources that led and coordinated plans across the organization.

In addition, research was completed amongst some District Social Services Administration Boards that would have comparable operations to TBDSSAB. Only one DSSAB identified work in the area of Net Zero / environmental sustainability, recently (February 2022) proposing the development of a plan to revitalize their housing portfolio, with decreased GHG emissions being one of the intended outcomes.

Development Process

The development of a Net Zero Strategy requires a comprehensive planning and review approach to ensure all aspects of the organization are considered, use an evidence-based approach, and include relevant technical expertise to research and support actionable initiatives.

Recognizing the complexity involved in developing a Net Zero Strategy, a fulsome development process would involve the following steps:

Stage	Components
<p>I. Understanding the current situation</p>	<ul style="list-style-type: none"> • Identification of all TBDSSAB operations to be reviewed, including the sources of GHG emissions • All areas would be reviewed, for example: <ul style="list-style-type: none"> ○ Housing portfolio – all buildings are heated by natural gas or electricity; generators are powered by combustible gases, domestic water supply is mostly produced by natural gas ○ Fleet – all vehicles are powered by fossil fuels ○ Procurement and Supply Chain considerations – Purchasing Policy includes language relative to environmental stewardship ○ Information Technology ○ HQ Office Building and leased spaces ○ Travel ○ Employee impacts (i.e., impact of driving to work) • Current environmental stewardship initiatives, and priorities
<p>II. Assessment</p>	<ul style="list-style-type: none"> • Full analysis of the identified TBDSSAB asset categories to determine GHG emissions, other environmental stewardship processes for each category (Housing portfolio, Fleet, Procurement, Information Technology, HQ Office Building and leased spaces, Travel, etc.)

III. Negotiation	<ul style="list-style-type: none"> • Development of a Net Zero Policy/ direction / strategy • Confirm options for each identified area (Housing portfolio, Fleet, Procurement, Information Technology, HQ Office Building and leased spaces, Travel, etc.)
IV. Redesign	<ul style="list-style-type: none"> • Confirm plans on how to move forward with a Net Zero Strategy by area (Housing portfolio, Fleet, Procurement, Information Technology, HQ Office Building and leased spaces, Travel, etc.)
V. Implementation	<ul style="list-style-type: none"> • Timelines, resources required, cost • Monitoring, reporting, continuous improvement

Development Options

The following options are provided for consideration:

Option	Comments
1. Continue with current environmental stewardship strategy	<ul style="list-style-type: none"> • Opportunities for environmental stewardship would continue to be reviewed and implemented through regular operating and capital budget processes • Administration recently cascaded the Provincial Plan¹ to identify initiatives that align with TBDSSAB's operations. Further development of the plan is in progress. Initial work has been completed which identifies initial implications for TBDSSAB, and is provided in Attachment 1
2. Develop Net Zero Strategy using internal resources	<ul style="list-style-type: none"> • Given the complexity of Net Zero, TBDSSAB does not currently have the internal capacity, nor the expertise to complete the development process • Additional internal resources would be necessary to coordinate the development of a Net Zero Strategy; a minimum of 1.0 FTE position, and further technical expertise, would be required
3. Develop Net Zero Strategy with external resources	<ul style="list-style-type: none"> • Given the complexity required to complete a fulsome approach to the development of a Net Zero Strategy, external resources and expertise would be required, namely consultants who specialize in this area

¹ Preserving and Protecting our Environment for Future Generations – A Made-in-Ontario Environment Plan

STRATEGIC PLAN IMPACT

The Practical Vision of the 2013-2016 Strategic Plan included Green, Environmentally Friendly Housing within the Optimized Housing strategy, which has been further expanded to focus on environmental stewardship across the organization.

FINANCIAL IMPLICATIONS

Options related to the development of a Net Zero Strategy will require various levels of financial resources:

Option	Financial Implications
1. Continue with current environmental stewardship strategy	<ul style="list-style-type: none"> • No specific costs as costs are included within operating or capital budgets in accordance with existing plans/ resources
2. Develop Net Zero Strategy using internal resources	<ul style="list-style-type: none"> • Internal resources required, at a minimum, a 1.0 FTE Position • Costs including salary, benefits, technology, professional development, etc. would be included in annual operating budgets, and are estimated at \$110,000 annually • Additional technical expertise may be required; Costs would be based on the position requirements
3. Develop Net Zero Strategy with external resources	<ul style="list-style-type: none"> • TBDSSAB recently requested proposals to review options for Net Zero strategies for the redevelopment (new build) of one of its properties. Submitted proposals were between \$10,000 – \$15,000 for the review and plan for the 42-unit housing redevelopment • It is reasonable that each property, and each asset category would need to be reviewed and assessed as a component of a comprehensive Net Zero Strategy • TBDSSAB owns and operates 2,500 units throughout the District of Thunder Bay made up of a variety of building structures, for example, 35 apartment buildings, 6 sets of row houses, 4-plexes, 8-plexes, semi-detached, and single detached, as well as the HQ building, and all other operations



Financial resources to implement the actions identified within a Net Zero Strategy would be determined/ estimated dependent on the implementation plan and timelines of that Strategy.

CONCLUSION

It is concluded that research into the development of a Net Zero Strategy, and options for the development of a Net Zero Strategy have been provided for consideration.

REFERENCE MATERIALS

Attachment #1 [Cascaded Environmental Plan](#)

PREPARED BY:	Georgina Daniels, FCPA, FCA, Director, Corporate Services Division
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APPROVED BY	Georgina Daniels, FCPA, FCA, Director, Corporate Services Division
SIGNATURE	
SUBMITTED BY:	William (Bill) Bradica, Chief Administrative Officer

The District of Thunder Bay Social Services Administration Board		
Preserving and Protecting our Environment for Future Generations - A Made-in-Ontario Environment Plan		
Cascaded Plan for TBDSSAB		
Actions	Specific Items	Implications for TBDSSAB
Protecting our Air, Lakes and Rivers		
Component 1: Clean Air		
Improve air quality in communities by creating unique solutions to their individual challenges	Focus on parts of the province that continue to experience air quality challenges due to pollution from transportation, industry and other sources	.Replace appliances with the most efficient options available
	Work in partnership with municipalities, industry, public health units, other community stakeholders and Indigenous communities to address local air quality concerns and achieve clean air objectives	.Increase tree plantings .Include education in tenant newsletters Include education/information sheets at the Intake area and on the TV monitor; Need to develop plan to do that for all satellite offices? .Include in OW cheques and statements; social media messages and feedback contest
Reduce Emissions from heavy-duty vehicles	Redesign the emissions testing program for heavy-duty vehicles (eg. Commercial transport trucks) and strengthen on-road enforcement of emissions standards.	.Electric vehicles and other equipment options for future tenders
Improve understanding of difference sources of air pollution and their impact	Monitor pollutants to evaluate long-term trends so we can gather the information we need to take action on air pollution	.TBDSSAB staff and tenant involvement in solutions, for example, proper recycling practices, through staff and tenant newsletters Include in OW cheques and statements; as above C9
	Increase road-side monitoring of traffic pollution and expand road-side monitoring of pollutants beyond the GTA to other heavily urbanized communities such as Sarnia, Sudbury and Hamilton	Policy on TBDSSAB vehicle idling; need to consider the length of time for idling.
Component 2: Clean Water		
Continue work to restore and protect our Great Lakes	Build on previous successes and continue efforts to protect water quality and ecosystems of the Great Lakes	Add fun facts and successes on TBDSSAB social media platforms; as above for C9
	Review and update Ontario's Great Lakes Strategy...by reducing plastic litter, excess algae and contaminants along our shorelines, and reducing salt entering waterways to protect our aquatic ecosystems	.Continue to use environmental friendly options through winter control maintenance .Continue to support not purchasing single-use plastic items with TBDSSAB funds .Staff and tenant involvement in recycling programs - Education in tenant newsletters Include in OW cheques and statements
	Build on ministry's monitoring and drinking water source protection activities to ensure that environmental impacts from road salt are minimized. Work with municipalities, conservation authorities, private sector and other partners to promote best management practices, certification and road salt alternative	.Continue environmentally friendly winter control practices
Ensure sustainable water use and water security for future generations	Enhance how we manage water takings to ensure we have sustainable water resources in the face of a changing climate and continued population growth. We will do this by examining approaches to assessing and managing multiple water takings, establishing priorities for different water uses, and preparing and responding to drought conditions.	.Expanding Rain barrels at housing properties (with community gardens)
	Ensure the knowledge gained through the drinking water source protection program helps inform our water management programs	
Help people conserve water and save money	Promote the use of technologies and practices to ensure water is used more efficiently. This includes water conservation planning; water use tracking and reporting; improving standards for household fixtures and appliances, such as dishwashers or washing machines; and profiling provincial and public sector leadership in this area	.Contract for washing machines enhanced water efficiency (HE rated) .All faucets being replaced are low flow (kitchen facets, shower heads, toilets); significant investment in recent years through various capital funding opportunities .Capital plans to continue to incorporate low flow options for water faucets
		.Water recycling facilities (possibly only feasible for new builds)

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Actions	Specific Items	Implications for TBDSSAB
Addressing Climate Change		
Component 1: Building Resilience		
Improve our understanding of how climate change will impact Ontario	Undertake a provincial impact assessment to identify where and how climate change is likely to impact Ontario's communities, critical infrastructure, economies and natural environment. The assessment would provide risk-based evidence to government, municipalities, businesses, Indigenous communities and Ontarians and guide future decision making	.Consider climate impact review on housing properties through next BCA process (2024)
Help Ontarians understand the impacts of climate change	Support communities by demonstrating how climate science can be applied in decision making to improve resilience	.Relationship with EcoSuperior; maximizing opportunities for TBDSSAB staff and tenant involvement
Update government policies and build partnerships to improve local climate resilience	Modernize the Building Code to better equip homes and buildings to be better able to withstand extreme weather events. This could include affordable adaptation measures such as requiring backwater valves in new homes that are at risk of backflow, which would significantly reduce the impacts of basement flooding	.TBDSSAB Housing properties currently meet code for backflow preventers (tested annually); and backwater valves are code (previously installed).
	Continue to support programs and partnerships intended to make the agriculture and food sectors more resilient to current and future climate impacts. We will support on-farm soil and water quality programming and work with partners to improve agricultural management practices	.Continue to support and expand community garden programs using environmentally sustainable practices
Component 2: Achieving the Paris Agreement Target		
Ontario will reduce its emissions by 30% below 2005 levels by 2030		
Enhance corporate disclosure and information sharing	Work with the financial sector to promote climate-related disclosures in Ontario	.Update Investment Policy to include ESG language. .Purchasing Policy implications
Component 3: Use Energy and Resources Wisely		
Conserve energy in homes and buildings to cut costs and reduce emissions	Increase the availability and accessibility of information on energy and water consumption so that households, businesses and governments understand their energy use (eg. Collection of data related to electric vehicles, household-level energy and water consumption data)	.TBDSSAB staff and tenant involvement
	Work with the Ontario Real Estate Association to encourage the voluntary display of home energy efficiency information on real estate listings to better inform buyers and encourage energy-efficiency measures	.Promotion of past plans to enhance environmental stewardship; and show alignment with provincial and federal environmental plans (as the largest landlord in the District of Thunder Bay).
	Review the Building Code and support the adoption of cost effective energy efficiency measures that can lower the cost of electricity and natural gas needed to operate buildings	.Maintain current strategy through capital plans/ budgets
	Work with the Ontario Energy Board and natural gas utilities to increase cost-effective conservation of natural gas to simultaneously reduce emissions and lower energy bills	Rebate programs for high efficiency, low use technology; tenant/client education
	Ensure Ontario's energy-efficiency standards for appliances and equipment continue to be among the highest in North America	.Procurement specifications to include the highest level of energy-efficiency standards for appliances and equipment, including vendor requirements; consider market conditions (LPC collaboration for consistency of expectations within the marketplace)
Increase access to clean and affordable energy for families	Encourage the use of heat pumps for space and water heating where it makes sense, as well as innovative community-based systems like district energy	Not common in N.W.O. given climate conditions/ temperatures below 0.

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Component 4: Doing our Part: Government Leadership		
Make climate change a cross-government priority	<p>Improve our ability to consider climate change when we make decisions about government policies and operations by developing a Climate Change Governance Framework that will:</p> <ul style="list-style-type: none"> .Establish clear responsibilities and requirements for ministries to track and report on climate change measures .Consider climate change when we purchase goods and services across government, where it is cost-effective .Explore opportunities to enhance coordination and guidance for municipalities to help them consider climate change in their decision-making .Update Statements of Environmental Values to reflect Ontario's environmental plan 	<ul style="list-style-type: none"> .Continued reporting and development of green initiatives to the Board; include outcomes as part of performance measurement and outcome reporting framework; .Enhance language in our Standards Terms and Conditions; .Connection with EcoSuperior? .Development of organization-wide Environmental Sustainability Policy (similar to ERM development, ie Policy, Framework, measurement, annual reporting);
	Continue to execute a high-performance building automation strategy for government buildings. (HVAC and lighting controls, security, elevators, fire protection, and life safety systems)	.Continue to develop TBDSSAB properties in alignment with high-performance building systems per capital budget and BCAs
	Ensure investments in future renovations of government buildings maximize energy cost savings (Ontario is building new correctional facilities to meet LEED standards)	.Continue to develop TBDSSAB properties in alignment with high-performance building systems per capital budget and BCAs
	Undertake a review of government office space, with an eye to optimizing our physical and carbon footprint. Ontario will reduce its per employee real estate footprint to reduce energy costs and emissions, as recommended in the Auditor General's 2017 Report	.Determine the Auditor General implications for TBDSSAB's employees (per employee real estate footprint); possibly develop plan to meet those recommendations.
	Develop tools to help decision makers understand the climate impacts of government activities. For example, we will identify and report on emissions reductions from school capital investments and enable school boards to access energy efficiency data to inform investment decisions	.Performance measurement data to be used to inform physical infrastructure investment decisions
	Provide guidance to public property owners of heritage buildings to help them reduce their energy use and save on operating costs while continuing to conserve these important cultural heritage resources for future generations	.Clark Towers part of Waverly Park Heritage Site implications
Improve public transportation to expand commuter choices and support communities through Intake	Establish a public education and awareness program to make people more aware of the environmental, financial and health impacts of their transportation choices	Support public transportation with clients and tenants
Support green infrastructure projects		<ul style="list-style-type: none"> .CMHC opportunities through the National Housing Strategy funding Other Green infrastructure funding opportunities

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Actions	Specific Items	Implications for TBDSSAB
Reducing Litter and Waste in our Communities & Keeping Our Land and Soil Clean		
Component 1: Reduce Litter and Waste		
Reduce and divert food and organic waste from households and businesses	Expand green bin or similar collection systems in large cities and to relevant businesses	.Provincial direction re: enhanced recycling programs; support practices across the housing portfolio and satellite offices in alignment with provincial/ municipal programs and direction
	Educate the public and business about reducing and diverting food and organic waste	.Staff and tenant communication/ newsletters & include components in tenant meeting agendas. Information at Intake and at satellite office and TV monitor at HQ; OW cheque inserts.
	Develop best practices for safe food donation	.Align TBDSSAB policy re: safe food donation
Reduce Plastic Waste	Work with other provinces, territories and the federal government to develop a plastics strategy to reduce plastic waste and limit micro-plastics that can end up in our lakes and rivers	.Continue to enhance TBDSSAB's single use plastic reduction direction
Reduce litter in our neighbourhoods and parks	Work with municipal partners to take strong action against those who illegally dump waste or litter in our neighbourhoods, parks and coastal areas	.Update housing policies/ procedures to be in alignment with provincial expectations (consider non-monetary actions, ie picking up garbage in the neighbourhood)
	Develop future conservation leaders through supporting programs that will actively clean up litter in Ontario's green spaces, including provincial parks, conservation areas and municipalities	.Spring clean up activities to continue Engage with clients/tenants on social media with possible contests/prizes; volunteer programs
	Connect students with recognized organizations that encourage environmental stewardship so they can earn volunteer hours by cleaning up parks, planting trees and participating in other conservation initiatives	Partnership with School Boards to offer volunteer hours to high school students. Also offer volunteer hours for clients.
Increase opportunities for Ontarians to participate in waste reduction efforts	Work with municipalities and producers to provide more consistency across the province regarding what can and cannot be accepted in the Blue Box program	.June 3/21 release of updated environmental sustainability practices re: recycling; implement as required/ appropriate throughout TBDSSAB organization
	Explore additional opportunities to reduce and recycle waste in our businesses and institutions	.June 3/21 release of updated environmental sustainability practices re: recycling; implement as required/ appropriate throughout TBDSSAB organization
	Encourage increased recycling and new projects or technologies that recover the value of waste	Recycling sheds on properties; increased education and messaging social media, newsletters.
Component 2: Clean Soil		
Conserving Land and Greenspace		
Promote parks and increase recreational opportunities	Provide Ontario families with more opportunities to enjoy provincial parks and increase the number of Ontarians taking advantage of parks by 10% or approx 1M more visitors while protecting the natural environment	.Promote use with clients and tenants; provide incentives .Promote use of parks with EarlyON Child and Family Centres when offering outdoor programs for families
Sustainable Forest Management	Increase the use of Ontario timber in building construction and renovation to reduce emissions and increase long-term carbon storage	.General increase in the use of wood products for capital projects; major renovations