



METROLINX

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SUSTAINABILITY STRATEGY

(2015-2020)

Leslie Woo, Chief Planning Officer

Metrolinx Board of Directors Meeting
September 9, 2016

Recommendations

1. That, subject to edits and modifications requested by the Board, the Sustainability Strategy be approved and released to the public; and
2. That, staff report back on the status of implementation and the progress towards targets through an annual report

Purpose

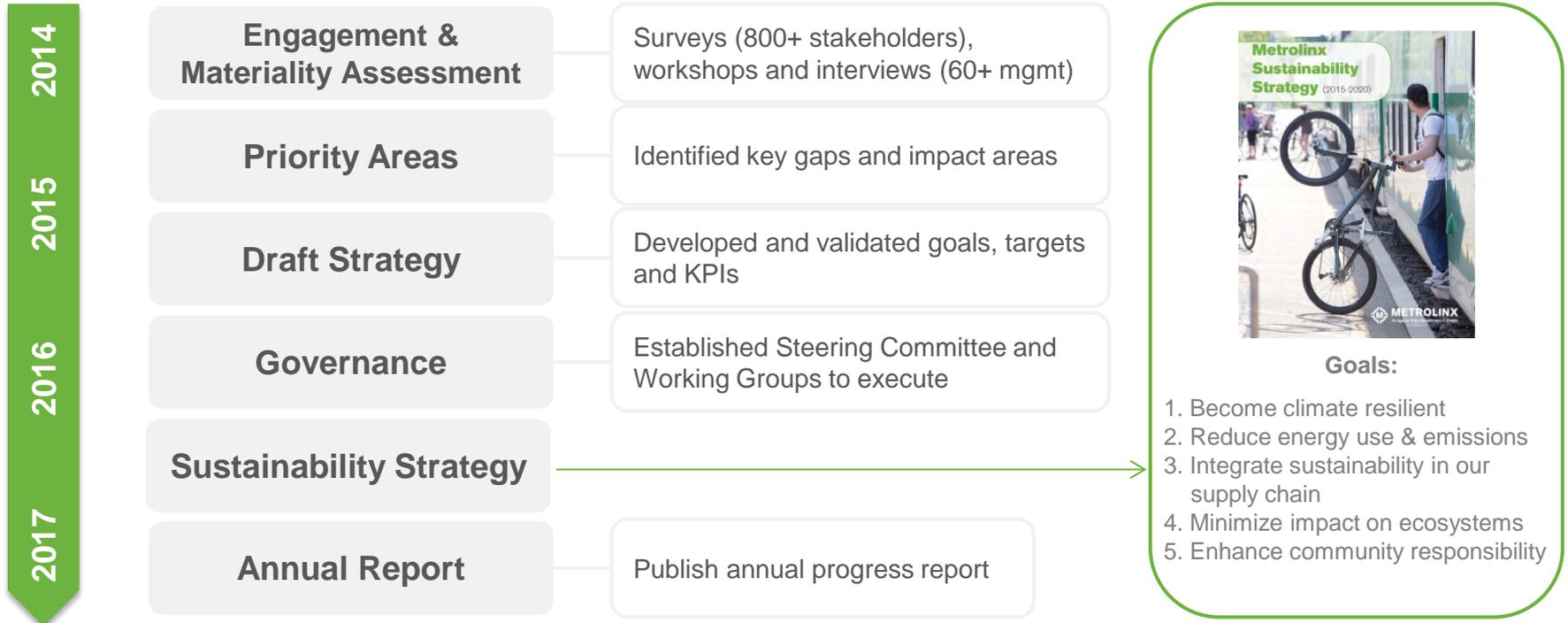
Anticipate and adapt to climate change to safeguard our ability to deliver, contributing to the resilience of our region and its communities

Minimize our environmental impact by considering materials, energy, emissions and water in projects and operations

Build trust with the region's communities to maintain our social license to operate

Coordinate and prioritize our efforts towards sustainability to maximize our efficiency and effectiveness given the magnitude of our mandate and the pace of change

Development Process

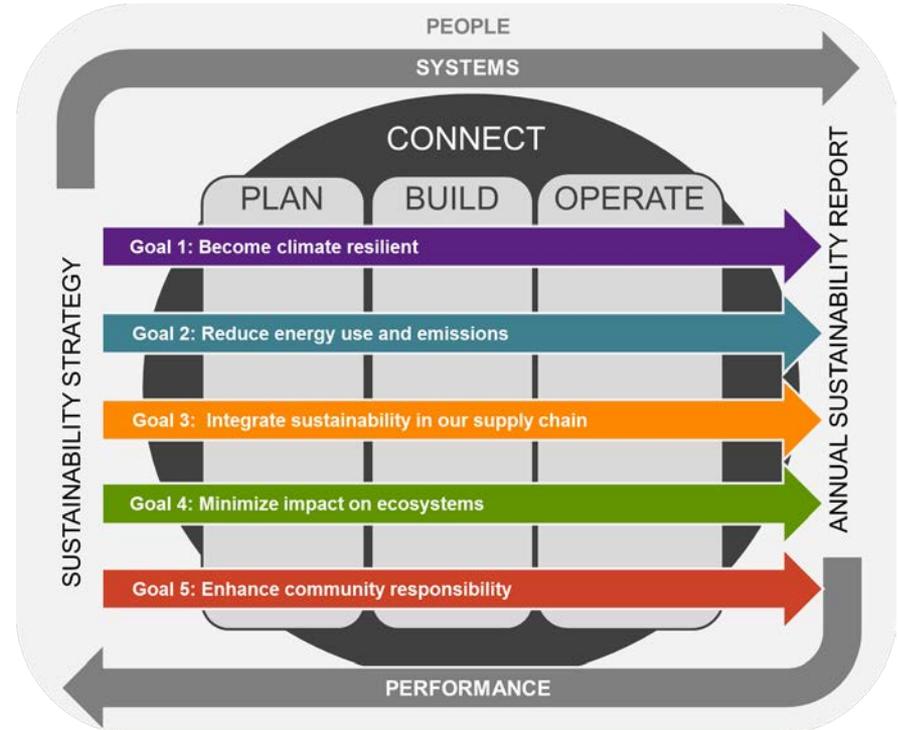


The Metrolinx Sustainability Strategy (2015-2020)

While the **Regional Transportation Plan** focuses on our core mandate or *what we do*, the **Sustainability Strategy's** five priority goals focus on our *approach* to **planning**, **building**, and **operating**.

Key targets:

- A **15% reduction** in mobile Greenhouse Gas (GHG) emissions per revenue seat km by 2020
- A **15% reduction** in fuel consumption per revenue seat km by 2020
- A **20% reduction** in total Criteria Air Contaminants (CAC) per revenue seat km by 2020
- An **18% improvement** in building energy performance over National Energy Code for Buildings (2011) by 2020
- **80% of Metrolinx operated facilities** will have a waste diversion management plan and targets by 2020





Goal 1: Become Climate Resilient

- ✓ We will finalize our corporate **Climate Adaptation Plan** and climate resilience requirements for our operations and major capital projects to navigate and prepare for the impacts of climate change to our **assets**, **services** and **communities** by 2018.



Goal 2: Reduce Energy Use & Emissions

- ✓ We will **reduce our energy consumption** in Metrolinx operated facilities, improving our building energy performance by **18%*†** by 2020.
- ✓ Our fuel consumption will improve by **15%*** per revenue seat km by 2020.
- ✓ We will **reduce our greenhouse gas (GHG) emissions** per revenue seat km by **15%*** and develop consistent reductions in idling time of revenue vehicles by 2020.
- ✓ We will **reduce our criteria air contaminant (CAC) emissions** per revenue seat km by **20%*** by 2020.



Goal 3: Integrate Sustainability in Our Supply Chain

- ✓ We will establish a viable **sustainability framework** for construction materials and procurement practices by 2018, and aim to attain LEED Gold certification for new facilities.
- ✓ We will divert waste from landfills during construction by requiring all vendors to produce **waste management plans** and divert waste created by our operations, requiring 80% of Metrolinx operated facilities will have a waste diversion management plan by 2020.
- ✓ Promote use of modular and adaptive design in our major capital projects commencing in 2017. Report on results as early as 2018 and no later than 2020.
- ✓ We will incorporate sustainability practices within procurement practices by developing a **Vendor Code of Conduct, Sustainable Procurement Policy**, and specific technical requirements in tenders by 2018.



Goal 4: Minimize Impact on Ecosystems

- ✓ We will minimize the impact of new and existing infrastructure on ecosystems and consider ways to **enhance the health of ecosystems**. We will integrate requirements, identifying and implementing opportunities and develop measurements to **support biodiversity** conservation and ecosystems to meet or exceed applicable legislation and guidelines. We will report on our progress annually and our results by 2020.
- ✓ We will minimize and manage the use of salt and other chemicals used in operations that are dispersed in the environment by implementing a **salt management strategy**, assessing its impact and possible alternatives by 2018.



Goal 5: Enhance Community Responsibility

- ✓ We will engage residents in the design and construction of new infrastructure through our promises in a new **Community Charter** that will be developed by 2017.
- ✓ We will minimize the local impacts from **light pollution**, incorporating it as a mandatory LEED requirement by 2017.
- ✓ We will develop and implement a comprehensive approach to **address noise** across the Metrolinx network by 2019.
- ✓ We will continue to support **local workforce development** to increase supply of skills and trades.
- ✓ We will develop, support and engage with educational programs, building knowledge, technology and skills that **advance sustainability and innovation**, within the scope of Metrolinx's mandate as early as 2018.
- 10 ✓ We will establish an **online platform** for public feedback and input on our projects by 2016.

Alignment

Closely aligned with the vision, objectives and priorities of the **Regional Transportation Plan (RTP)** and the **Five-Year Strategy**, our Sustainability Strategy focuses on **how** Metrolinx can implement its mandate while achieving meaningful progress towards environmental and social sustainability.

Five Year Strategy

I. Lead the Transformation of Regional Mobility



II. Provide and Facilitate a Safe High-Quality and Connected Customer Experience



III. Enhance Financial Stewardship and Accountability



IV. Earn and Maintain Public Trust



RTP / Sustainability Strategy

Overarching objective of the Regional Transportation Plan

Goal 1: Become Climate Resilient - to safeguard our ability to deliver our projects and services

All goals contribute but particularly **Goal 2:** Reduce Energy Use and Emissions - using resources efficiently

All goals contribute but particularly **Goal 5:** Enhance Community Responsibility

Alignment

There is a focus at every level of government on increasing **community benefits** of infrastructure projects, mitigating and adapting to **climate change** and seizing opportunities for transitioning into a **low-carbon economy**.

The Metrolinx Sustainability Strategy aligns with these key policies. As an example:

| | |
|--|---|
| Provincial Climate Change Strategy —————> | 15% reduction in GHG emissions below 1990 levels by 2020, 37% reduction in 2030, and 80% reduction by 2050 [†] |
| Metrolinx Sustainability Strategy Goal 2 —————> | <ul style="list-style-type: none">• 15% reduction in fuel consumption per revenue seat km by 2020*• 15% reduction in mobile GHG emissions per revenue seat km by 2020* |
| Infrastructure for Jobs and Prosperity Act, 2015 —————> | Establish “mechanisms to encourage [...] infrastructure planning that supports job creation and training opportunities, economic growth and protection of the environment, and incorporate design excellence into infrastructure planning”. |
| Metrolinx Sustainability Strategy Goal 5 —————> | <ul style="list-style-type: none">• Develop a Community Charter• Develop and implement Community Benefits provisions in all major capital projects |

Implementation Approach

Over the next five years, we will **integrate** our sustainability goals into all aspects of how we plan, build and operate a sustainable transportation system.

This will be implemented by ensuring that we have in place the **people, systems and performance** management systems we need to measure and achieve success.



Alignment with key initiatives and programs:

- GO RER
- LRT/BRT Programs
- Operational Performance

Key Outputs*

- Sustainable Procurement Policy (2017)
- Vendor Code of Conduct (2017)
- Environmental Assessment, Technical Advisor, Project Agreement, Project Specific Output Specifications Language in AFPs (2017)
- Corporate Climate Adaptation Plan (2017)
- Corporate Energy & Emissions Plan (2016)
- Community Charter / Promises (2017)
- Enhanced community benefits provisions in all AFPs (2017)



Reporting on Progress

As we seek to achieve our sustainability goals, we are committed to **measuring, monitoring** and **reporting** on our sustainability performance **by the end of 2017** . We will therefore:

- **Maintain our sustainability commitments through international organizations** including the American Public Transportation Association (APTA) and the International Association of Public Transport (UITP) through annual reporting.
- **Measure our performance** annually against our targets and report our progress publicly.
- **Maintain open channels of communication** to obtain feedback and comments on our Sustainability Strategy and progress through dedicated channels including email, our website, workshops and community meetings.
- **Re-evaluate our priorities once every five years** so that we can ensure our areas of focus remain relevant and current.
- **Engage in ‘lessons learned’ processes** to understand our strengths, weaknesses, opportunities and threats to achieving greater success.



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APPENDIX

Key Terms

Alternative Finance Procurement (AFP) – Use of private sector involvement to design, finance and/or build infrastructure ensuring public control.

Criteria Air Contaminants (CACs) – Atmospheric gases that contribute to poor air quality, smog and acid rain including SO_x and NO_x.

GO Regional Express Rail (GO RER) – The electrification and expansion of services of the regional rail network in the Greater Toronto and Hamilton Area (GTHA).

Greenhouse Gas Emissions (GHGs) – Those gases that trap the sun's warmth within the atmosphere, causing a greenhouse effect, such as water vapour (H₂O), carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄) and ozone (O₃).

Leadership in Energy and Environmental Design (LEED) – An internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using strategies aimed at improving performance.

Metrolinx Five Year Strategy – A Metrolinx strategy that provides a rolling five year outlook focusing on the activities Metrolinx will undertake including key issues and opportunities.

National Energy Code for Buildings (2011) – Sets out Canadian requirements to design and construct more energy efficient buildings.

Project Specific Output Specifications (PSOS) – Guidelines that include elements necessary to form the framework for ensuring the results of tender meet the required specifications.

Regional Transportation Plan (RTP) – A regional plan that guides the work being done to transform the transportation network in the GTHA by providing vision, goals and objectives.